Identification Of New Factors In The IELTS Argumentative Essays Through Multidimensional Analysis In Pakistani Context

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Abstract

The present research is the exploration of new dimensions in the argumentative essays written by IELTS test takers in Pakistan while using Biber's multidimensional framework. Biber (1988, 1993, 2006) established the field with the perspective that language variation can be studied more comprehensively through study of group of features which occur with each other and they are responsible for an overall characteristic 'flavor' of any genre. There is widespread research on learner writing in Pakistani context. Azhar and Mahmood (2016) was a pioneering research on Pakistani learner's academic writing. Argumentative essay is an important sub-genre of learner academic writing. Simultaneously, it is an important part of IELTS tests. Hence, in th[1]is study it has been tried to study the new factors in the argumentative essays written by Pakistani IELTS test takers. To extract the new factors, the already Biber tagged data has been processed through SPSS and applying the procedure already determined by Biber four dimensions have been extracted from the present data. These factors have been labeled on the basis of the linguistic features with salient loadings. The new factors have been labeled as "Informational Prose", Expressive Prose", "Interactive Discourse" and "Modality and Evaluation". These factors represent that argumentative essays written by Pakistani IELTS test takers are informational, less argumentative, more expressive and evaluative. The results also confirmed that IELTS writing is noted for its high level of elaboration, indicating a richness and depth in expression

Keywords: *Multidimensional Analysis, Argumentative essays, IELTS tests.*

Introduction

Genre-based approach to teaching and learning focuses on using specific genres as a strategy for teaching writing. It is an approach focused on processes. Dirgeyasa (2016) employs a mixed method approach. The process should begin as a strategy and culminate in writing as the final outcome. It is a genre approach that focuses on the entire writing process. It demonstrates how learners and teachers can adhere to a structured sequence of steps. Genre as a product encompasses distinct writing features such as layout, organization, format, design, and linguistic elements that serve specific communicative purposes in a written piece of writing.

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The genre-based method to teaching writing is recommended for learners with poor competency levels or little motivation to master writing abilities. This method offers systematic assistance to learners ranging from novice to proficient writers. It helps learners transition from being reliant on others to being autonomous writers by completing tasks ranging from easy to difficult. It also helps learners become self-directed. The genre-based approach to writing is appropriate for learners in both simple English for Academic Purpose schools and advanced writer classes, including professional writer training.

Genre has evolved over time and is now employed in different parts of life such as film, music, literature, and more. Genre categorizes music and movies into different sorts such as pop, gospel, classic, drama, western, and science fiction. Literature commonly includes terms such as book, play, and poetry. Genre can be defined as a category or classification of a specific entity or object. Recently, the concept of genre has also been incorporated into linguistic research. Genre is a language entity that is studied in linguistics. The study of genre in linguistic literacy is founded on Systemic Functional Linguistics (SFL) as proposed by Halliday (1978), Swales (1990), and Hyland (2003). Christie and Martin (2000) state that linguistic function is a crucial reference point in understanding how language is used in different genres. What does genre refer to in the context of language and linguistics? Martin (1999) defines genre as a communicative action with a specific purpose and direction. Swales (1990) defines genre as a communicative event with a specific set of communicative goals. Genre can be defined as a goal-oriented communication process inside a certain social environment during a particular communication event. Genre is determined by the way communication occurs within a specific social setting. Therefore, the varied social setting often results in distinct genres. Christie and Martin (2000) define genre as the specific application of language within a particular social context, such as interview, media, or advertisement genres. According to Halliday and Hasan (1989) as cited by Hyland (2003) this theory explores the connection between language and its social purposes, demonstrating how language operates as a system through which users select expressions to convey meaning. Halliday asserts that language users must employ and refine particular language strategies to achieve objectives, indicating that texts are interconnected with social environment as well as other texts. Generally, works with a common goal tend to have a similar structure, placing them in the same genre.

Genre can be defined as a type of writing, whether spoken or written, that involves a connection between language and its social purpose. Language usage tends to vary across different genres based on distinct social functions. Genre is defined as the use of language in a particular and distinctive manner to accomplish a given objective. The key point here is that a work, whether spoken or written, with a same objective and similar lexico-grammatical characteristics, belongs to the same genre. Swales (1990) also contends that a category of communication events where participants share some anthropologically and specifically culturally associated communication properties usually require additional confirmation of their communicative purposes. The expert members of the parent discourse community acknowledge the aims, which serve as the explanation for the genre. This rationale determines the overall framework of the discourse and impacts the selection of content and style. The communicative purpose is a key requirement that helps maintain the emphasis of a genre on similar rhetorical actions. Models of genre display patterns of similarity in structure, style, substance, and intended audiences. The genre label, passed down and created by discourse communities and adopted by others, holds significant value. Swales has articulated that genre is characterized by specific communication events, goals, variations in linguistic features, limitations, and rules, as well as association with particular discourse communities. According to Widdoson (2007), genre is influenced by the discourse community in which it exists. Various

discourse communities have distinct genres. Discussing the relationship between discourse community and genre. Swales (1990) explains that the characteristics of a discourse community in relation to language usage in a social context include: a) having specific communication goals, b) internal communication among members, c) utilizing a particular communication pattern, d) employing multiple genres for communication, and e) developing a distinct register.

The research questions which we want to probe into in this paper are as follows:

a) What are the new factors specific to argumentative essays written by Pakistani IELTS test takers?
b) What are the functional interpretations of the new factors?

Identification of New Dimensions in Learner Writing Genre

Hardy and Romer (2013) examines four additional aspects in students' writing identified in the Michigan Corpus of Upper-level Student Papers (MICUSP, 2009) across four major fields: Humanities, Social Sciences, Biological Sciences, and Physical Sciences. The four aspects include: (1) Involved, Academic Narrative compared to Descriptive, Informational Discourse; (2) Expression of Opinions and Mental Processes; (3) Situation-Dependent, Non-Procedural Evaluation against Procedural Discourse; and (4) Production of Possibility Statement and Argumentation. Azhar and Mahmood (2016) conducted a study that delves into new aspects of Pakistani academic writing in the nonnative setting of Pakistani English. Prior quantitative research on Pakistani English has pinpointed its unique features by analyzing certain linguistic elements, contributing significantly to the acknowledgment of Pakistani English as a distinct variation. This study is one of the first to explore register variance in learner writing. The goal is to analyze the Pakistani academic writing style using multidimensional analysis. A specialized corpus consisting of 8.385 million words derived from 235 M.Phil and PhD theses representing Pakistani academic writing was created for this study. Factor analysis revealed groups of correlated characteristics across five dimensions. The dimensions are "Interactive Expression vs. Informational Academic Discourse", "Contextualized Description vs. Detached Reference", "Informal vs. Formal Academic Discourse", "Narrative Discourse vs. Other Concerns", and "Personal/Evaluative Stance vs. Technical Description".

Grey (2011) performed multidimensional analysis on research articles from six disciplines to determine disciplinary differences and other various characteristics. Through a multidimensional analysis of academic writing, she identified 4 distinct dimensions: Dimension 1, Academic Involvement and Elaboration versus Information Density (consisting of twenty-six positive features and eight negative features), Dimension 2: contextualized narration versus procedural discourse, Dimension 3: human versus nonhuman focus, Dimension 4: "academese". Grey concludes that linguistic variation across disciplines is a significant aspect of academic writing, but there are other important factors such as the nature of evidence, availability of data, and quantitative and qualitative paradigms that also influence academic writing. The study employs multi-dimensional analysis to examine the differences in the utilization of seventy lexical and grammatical characteristics in 270 research articles from three sub-registers (theoretical, qualitative, and quantitative research reports) across six disciplines (philosophy, history, applied linguistics, political science, biology, and physics). Linguistic diversity exists across various criteria, not just across disciplinary boundaries, as shown by the resulting dimensions of variance. Variation also relates to the different aims and forms of evidence linked to the three research paradigms. This article examines intricate patterns of variation to enhance comprehension of language use within and across disciplines. It also discusses the implications of these findings for future corpus-based investigations of disciplinary variation.

Egbert (2015) delineated linguistic diversity in academic writing within two fields: biology and history. He examines academic writing from two viewpoints using a corpus of published academic writing: academic writing as a register and variations within academic writing, particularly in published academic writing. This study highlights five dimensions: "Affective synthesis versus specialized information density", "Definition and evaluation of new concepts", "Author-centered stance", "colloquial narrative", and "abstract observation and description". Dimension 1 includes adverbials, emphatics, and amplifiers on the positive side, while it features nouns on the negative side. Both of these characteristics indicate "related functional factors." Getkham (2010) examined the simultaneous occurrence patterns of linguistic characteristics in research articles of applied linguistics across different sections using multidimensional analysis. The corpus comprised 60 research articles selected from five applied linguistics journals, with 12 pieces from each magazine. The study identified six concurrent patterns: (1) Established Knowledge/Expression of Ownership, (2) Expression of Purposes, (3) Evaluative Stance, (4) Expression of Generality, (5) Framing Claims, and (6) Conceptual Complexity.

The Biber's multidimensional analysis (1988, 2006, 2011) is frequently employed as a theoretical framework and methodology in studies of Pakistani English. Shakir (2013) conducted a groundbreaking MD study in Pakistan focusing on the language used in ads in the Pakistani setting. Shakir and Deuber (2018) examined online register, while Asghar, Mahmood, and Asghar (2018) analyzed legal English. These studies encompass a variety of sources, including newspaper editorials (Ali, 2018; Alvi, Mehmood, & Rasool, 2016), Online editorials (Ahmad & Ali, 2017; Ahmad & Mahmood, 2015), English blogs and newspaper columns (Shakir & Deuber, 2018). Various registers, such as Pakistani academic writing, theses (Azher & Mehmood, 2016), online book blurbs (Qasim & Shakir, 2016), argumentative essays (Abdulaziz, 2017), theses and books (Abbas, 2020), research articles (Rashid, 2019) and Pakistani fiction in English (Ali & Ahmad, 2016), have been analyzed using a multidimensional approach. The MD analyzes cover various types of language data, such as spoken and written registers of Pakistani English, online brands of Pakistani fashion blogs, Pakistani learner writing, Pakistani doctoral dissertations, sports category of press reportage, and Pakistani sports columns. However, the investigations are restricted to Pakistani English and its comparison with British or American English.

Qasim and Qasim (2019) examined the language used in Pakistani book blurbs by applying new factor analysis techniques introduced by Biber (2006). An established collection of Pakistani book blurbs was created by utilizing online and print sources. The four newly recognized aspects are: 1) Abstract Informational Description against Concrete Human Focus; 2) Interactive Stance versus Formal Reportage of Facts; 3) Informational Density versus Elaborated Expression; and 4) Expression of Personal Stance and Judgment. The findings showed significant variation in the vocabulary used in different categories of Pakistani book blurbs. Literary source was identified as the primary source of variation across the three factors, explaining the highest amount of shared variance in the blurb data. Rashid and Mahmood (2019) examined the linguistic uniqueness of the Pakistani Academic writing register of Research Articles. A corpus named Pakistani Research papers Corpus (PRAC) was created for this study. It consists of 1,329 research papers from various fields taken from Pakistani publications. ANOVA has been utilized to explore variations within disciplines within arts, social sciences, and sciences. Humanities disciplines are highly detailed yet lack knowledge, human connection, persuasion, and storytelling. Social Sciences are characterized by being more impersonal, non-persuasive, non-narrative, and informative compared to Humanities, but less so than Sciences. Scientific disciplines are characterized by being impersonal, non-persuasive, non-narrative, and primarily focused on providing information with minimal

elaboration. Pakistani academic research publications on Biber's 1988 textual dimensions are characterized as extremely informative, abstract/impersonal, non-persuasive, non-narrative, and explicit. The findings suggest that the Pakistani research publications exhibit a blend of lucid, unbiased, and informative content.

Rashid et al. (2017) conducted a multidimensional analysis of academic journal articles in Pakistan to examine linguistic variances across different sections. The analysis determines the language used in Pakistani academic journal articles. The collection of Pakistani academic journal articles has been gathered from a range of research articles published in Pakistani academic publications. The data has been analyzed using Biber's (1988) Multidimensional analysis model, focusing on five dimensions. The ANOVA analysis of Pakistani academic journal articles shows considerable variations among study areas based on Biber's five dimensions. Abstract sections in Pakistani academic journal papers are often informative, non-persuasive, and detailed. Pakistani academic journal articles typically feature introduction sections that are detailed and expository compared to other research sections. Pakistani academic journal papers have shown that Literature Review parts are the least non-narrative compared to other sections. Methodology portions in academic journal publications from Pakistan are considered the least convincing among all study sections. The data analysis research portions are the least explicit compared to other areas. Conclusion parts in Pakistani academic journal articles are considered the most impersonal, least informative, and least compelling among all study sections. This research work emphasizes the unique characteristics of scholarly journal articles from Pakistan.

Abdulaziz (2017) examined learner language utilizing both Biber's old and new Multidimensional Analysis. She gathered a collection of argumentative essays, had them labelled by Biber's tagger, and then performed factor analysis. She compared various varieties of English, including ENL, ESL, and EFL. The author introduced new aspects of abstract versus concrete knowledge, contextualized interactive elaboration versus incoherent informative speech, and the author's personal attitude and synthesis. Abbas (2018) compared 29 registers of Pakistani English and found a considerable variance in language use based on the old and new factor analysis following Biber's framework (1988, 2006) and also proposed new dimensions.

Methodology

Biber's framework of multidimensional analysis has been used for this study. A corpus of 500 argumentative essays has been compiled by the researcher. These essays have been written by Pakistani IELTS test takers in preparatory centers while implementing the constraint of topic, duration and length of essay following the constraints of IELTS tests. This corpus is labeled as IELTS Argumentative Essays Corpus (IAEC).

In the next phase, IAEC has been tagged by Biber's tagger and old MD (MD88) has been conducted on the data according to Biber's multidimensional analysis framework (1988). On the basis of old MD scores new MD analysis has been conducted on IAEC. Factors have been extracted using SPSS and have been rotated through promax rotation. Scree plot has also been extracted for IAEC. The Scree plot has been given below in figure 1. On the basis of the principals of cut-off point (+/-0.3) and at least five significant values on each factor, four factors have been taken into account as the new factors for IAEC. These factors with the linguistic features of salient loadings have been given in the table 1.
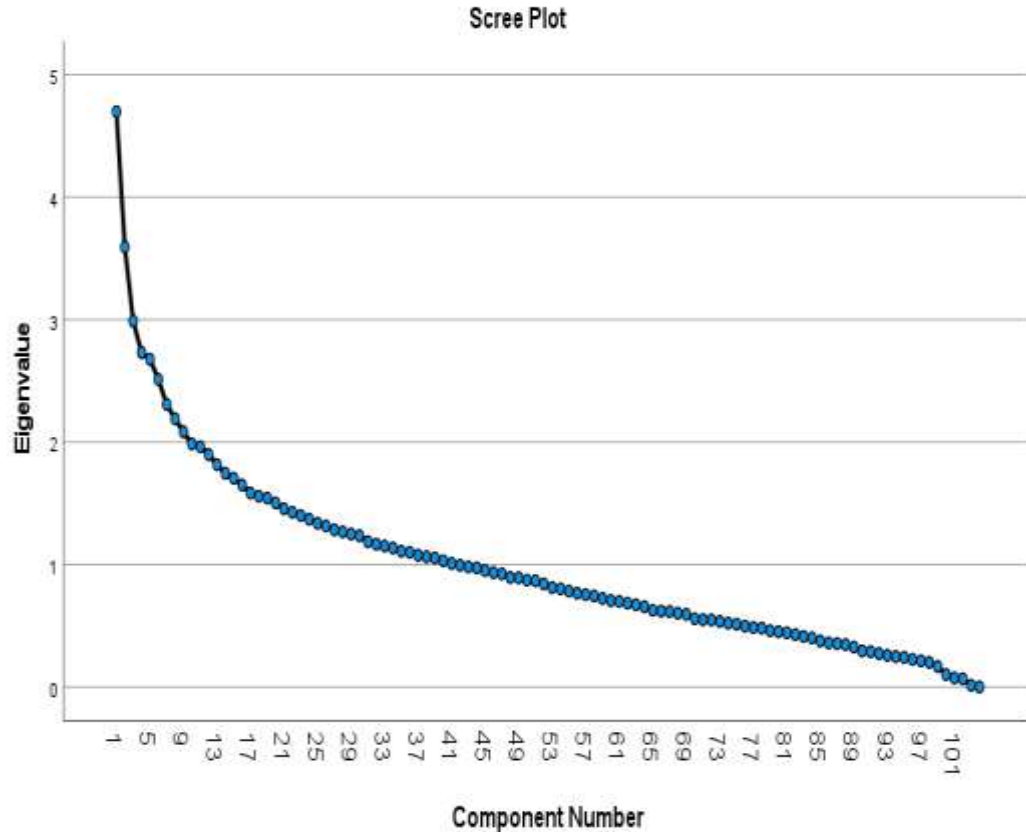
Results

Figure 1: Scree plot

Table 1: linguistic features with salient loadings

Sr No.	Linguistic Feature	Factor Loading
	FACTOR 1	
	Positive Features	
1	Past Tense Verb	0.999
2	Verb – Perfect Aspect	0.591
3	Adverbs – time	0.350
4	Agentless passive verb	0.319
5	Subordinating conjunction – Other	0.935
6	'That' relative clauses	0.324
7	pre-modifying nouns (noun-noun sequences)	0.486
8	Nouns—Quantity	0.302
9	Nouns--Group / Institution	0.324

10	Verbs—Activity	0.433
11	Verbs—Communication	0.474
12	Verbs—Aspectual	0.349
	Negative Features	
1	verb (uninflected present, imperative & third person)	-0.344
2	Nouns—Animate	-0.386
	FACTOR 2	
	Positive Features	
1	Verb "be" (uninflected present tense, verb and auxiliary)	0.553
2	Adverb / Qualifier – Amplifier	0.416
3	Predicative Adjective	1.157
4	predicative epistemic adjective	1.144
5	'That' complement cl. controlled by attitudinal adjective	0.322
6	'To' complement cl. controlled by evaluative adjectives	0.296
7	Nouns—Animate	0.400
	Negative Features	
1	'To' complement clauses controlled by verbs of desire, intention and decision	-0.417
	FACTOR 3	
	Positive Features	
1	Wh- question	0.345
2	Public Verbs	0.960
3	'That'- complement clause controlled by verb	0.364
4	'That' complement clause controlled by a communication verb	0.870
5	'That' complement clause controlled by mental/attitudinal verb	0.334
6	'To' complement cl. controlled by adjectives of certainty	0.359
7	Verbs—Communication	0.568
	No Negative Features	
	FACTOR 4	
	Positive Features	

1	"that" deletion	0.342
2	First person pronoun / possessive	1.038
3	Subordinating conjunction – conditional	0.362
4	Modal of necessity	0.410
5	proper nouns	0.320
6	Attributive Adjectives—Evaluative	0.336
	Negative Features	
1	Third person pronoun (except 'it')	-0.451
2	Coordinating conjunction – phrasal connector	-0.455
3	Nouns—Animate	-0.334

These dimension scores represent the overall tendency or strength of each factor in the data. Higher dimension scores indicate a stronger presence of linguistic features associated with that factor, while lower dimension scores suggest a weaker presence.

Discussion

Labeling of New Factors

In the tradition of Douglas Biber's multidimensional analysis, the labeling of factors typically refers to the communicative or functional dimensions that the factors represent. Here are labels for each factor following this tradition:

Factor 1: Informational prose

Factor 2: Expressive prose

Factor 3: Interactive discourse

Factor 4: Modality and evaluation

These labels reflect the themes and linguistic characteristics that define each factor in the context of the research results. Detailed discussion of each factor considering the linguistic perspective and the significance of each loading within the context of the factors has been given below.

Factor 1: Informational Prose

Linguistic Features Related to Tense and Clause Structure

This factor represents linguistic features commonly found in informational or expository prose. It includes past tense verbs, perfect aspect verbs, time-related adverbs, agentless passive constructions, subordinating conjunctions, 'that' relative clauses, and pre-modifying nouns. These features are associated with the structured and informative nature of written discourse.

This factor is characterized by linguistic features related to verb tenses, perfect aspect verbs, time-related adverbs, agentless passive verbs, subordinating conjunctions (excluding conditionals), 'that' relative clauses, and pre-modifying nouns. These features collectively influence the tense and clause structure of the text.

Past Tense Verb (Factor Loading = 0.999) represents the strong positive association of texts containing past tense verbs with Factor 1. Past tense verbs are a fundamental aspect of verb conjugation, signifying actions or events that have occurred in the past. In linguistic terms, this loading suggests that the presence of past tense verbs is indicative of a specific linguistic pattern associated with Factor 1. Verb – Perfect Aspect (Factor Loading = 0.591): The loading for perfect aspect verbs signifies that texts containing verb forms related to the perfect aspect (e.g., "have eaten," "had studied") are positively associated with Factor 1. The perfect aspect is a grammatical construct that conveys actions that are completed in relation to a specific point in time. Adverbs – time (Factor Loading = 0.350): The presence of time-related adverbs in the text (e.g., yesterday, now) is associated with Factor 1. Adverbs related to time are important for indicating when actions or events occur, contributing to the temporal structure of a sentence. Agentless passive verb (Factor Loading = 0.319): Agentless passive constructions represent a specific type of passive voice where the agent (the doer of the action) is not explicitly mentioned (e.g., "The book was read"). This loading suggests that texts containing agentless passive verbs have a linguistic connection with Factor 1. Subordinating conjunction – Other (Factor Loading = 0.935): Subordinating conjunctions are words that link an independent clause to a dependent clause. In this context, "Other" subordinating conjunctions, aside from those associated with conditional clauses, have a strong positive association with Factor 1. This indicates that texts using subordinating conjunctions for various subordination purposes are likely to have other linguistic characteristics from Factor 1. 'That' relative clauses (Factor Loading = 0.324): The presence of 'that' relative clauses, which serve to provide additional information about a noun, is positively associated with Factor 1. Such clauses are an integral part of sentence structure and contribute to the complexity of sentences.

On the other hand, on the negative pole of this factor are the features like verb (uninflected present, imperative & third person) (Factor Loading = -0.344): This negative feature represents a strong negative association with Factor 1. It suggests that the presence of verb forms in the uninflected present, imperative, and third person (except 'it') is indicative of a different linguistic pattern than the predominant features of Factor 1. These verb forms are used in specific grammatical contexts and often carry different meanings or functions compared to the past tense verbs and other positive features in Factor 1. Nouns—Animate (Factor Loading = -0.386): The presence of animate nouns is negatively associated with Factor 1. Animate nouns typically refer to living entities or creatures. The negative association suggests that texts containing animate nouns have a different linguistic pattern than those with the predominant features of Factor 1. This may relate to differences in semantic content and grammatical usage.

Factor 2: Expressive Prose

Linguistic Features Related to Verb Forms and Modifiers

This factor captures linguistic features often seen in expressive or subjective prose. It encompasses the uninflected present tense of the verb be, amplifying adverbs and qualifiers, predicative adjectives (including epistemic ones), 'that' and 'to' complement clauses controlled by specific adjectives, and the presence of animate nouns. These features are indicative of a

more subjective, descriptive, or emotionally expressive style of writing. This factor is associated with linguistic features related to specific verb forms, modifiers that amplify meaning, predicative adjectives (including epistemic ones), 'that' and 'to' complement clauses controlled by specific adjective types, and the presence of animate nouns. These features collectively shape the choice of verb forms and modifiers, as well as the use of adjectives and complement clauses in the text.

Verb "be" (uninflected present tense, verb and auxiliary) (Factor Loading = 0.553): The positive loading for the uninflected present tense of the verb "be" in both verb and auxiliary forms suggests that texts containing these verb forms are associated with Factor 2. The uninflected present tense often marks ongoing actions or states, and its presence may indicate a specific linguistic style or pattern. Adverb / Qualifier – Amplifier (Factor Loading = 0.416): The presence of adverbs or qualifiers that amplify or intensify the meaning of other words or phrases is positively associated with Factor 2. Amplifying adverbs, such as "very" or "extremely," serve to enhance the meaning of other elements in the sentence. Predicative Adjective (Factor Loading = 1.157): The strong positive loading for predicative adjectives indicates that texts containing these adjectives are highly associated with Factor 2. Predicative adjectives function to describe or provide attributes to the subject of a sentence. In this context, they contribute significantly to the linguistic pattern of Factor 2. Predicative Epistemic Adjective (Factor Loading = 1.144): Predicative epistemic adjectives relate to epistemic modality, expressing notions of possibility, probability, or certainty. The strong positive association with Factor 2 suggests that texts containing these adjectives exhibit a specific linguistic pattern related to epistemic modality.

Other positive features ('That' complement cl. controlled by attitudinal adjective, 'To' complement cl. controlled by evaluative adjectives, Nouns—Animate). 'That' complement clauses controlled by attitudinal adjectives and 'to' complement clauses controlled by evaluative adjectives suggest a connection to attitudes and evaluations in language. The presence of animate nouns is also a characteristic of Factor 2. 'To' complement clauses controlled by verbs of desire, intention, and decision (Factor Loading = -0.417) negative feature indicates a strong negative association with Factor 2. 'To' complement clauses controlled by verbs expressing desire, intention, and decision may introduce a linguistic pattern that is distinct from the predominant features of Factor 2. These clauses often convey a sense of purpose or intention in language.

Factor 3: Interactive Discourse

Linguistic Features Related to Questions and Verbs of Communication

Factor 3 reflects linguistic features commonly used in interactive or dialogic discourse. It includes wh-questions, public verbs,'that' complement clauses controlled by verbs of communication and mental attitudes, 'to' complement clauses controlled by adjectives of certainty, and features related to verbs of communication. These elements are associated with dialogues, information exchange, and interactive communication. This factor is characterized by linguistic features related to wh-questions, public verbs, 'that' complement clauses controlled by verbs of communication and mental attitudes, 'to' complement clauses controlled by adjectives of certainty, and general features related to verbs of communication. These features collectively indicate a focus on questions, information exchange, and communication within the text. Wh- question (Factor Loading = 0.345): Wh-questions, which typically start with words like who, what, where, and so on, are positively associated with Factor 3. This

suggests that texts containing wh-questions exhibit linguistic patterns related to question formation and inquiry. Public Verbs (Factor Loading = 0.960): The strong positive loading for public verbs indicates that texts containing these verbs, often associated with public activities and communication, are highly correlated with Factor 3. Public verbs may relate to the discourse of public events, information sharing, or communication in the text.

Other positive features are That complement clause controlled by verb, 'That' complement clause controlled by a communication verb, 'That' complement clause controlled by mental/attitudinal verb, 'To' complement cl. controlled by adjectives of certainty, Verbs— Communication). These positive features encompass a range of linguistic elements related to communication and discourse. They indicate that texts containing these features are associated with Factor 3, suggesting a connection to the use of language for communication and information exchange. Factor 3 does not have any negative features, indicating that the linguistic elements associated with this factor do not have strong negative associations with other linguistic patterns in the data.

Factor 4: Modality and Evaluation

Linguistic Features Related to Pronouns and Modality

This factor represents linguistic features related to modality and evaluation. It includes "that" deletion, first person pronouns and possessives, subordinating conjunctions used in conditional clauses, modals expressing necessity, proper nouns, and evaluative attributive adjectives. These features are associated with expressing the speaker's perspective, modality, and the evaluation of information. This factor is associated with linguistic features related to "that" deletion, first person pronouns and possessives, subordinating conjunctions used in conditional clauses, modals expressing necessity, proper nouns, and evaluative attributive adjectives. These features collectively shape the use of pronouns, conditional statements, modality, and evaluation within the text. That deletion (Factor Loading = 0.342): The positive loading for "that" deletion signifies that texts containing this linguistic feature, which involves the omission of the word "that" in certain contexts, are associated with Factor 4. "That" deletion is a specific grammatical phenomenon that impacts sentence structure. First person pronoun / possessive (Factor Loading = 1.038): The strong positive loading for first person pronouns and possessive forms indicates that texts containing these pronouns (e.g., "I," "my") are highly correlated with Factor 4. First person pronouns are associated with the speaker or writer's perspective and possessive forms indicate ownership or association. Other positive features (Subordinating conjunction – conditional, Modal of necessity, proper nouns, Attributive Adjectives—Evaluative): These positive features encompass a variety of linguistic elements. Subordinating conjunctions related to conditional clauses, modals expressing necessity, proper nouns, and evaluative attributive adjectives are all associated with Factor 4, suggesting a linguistic pattern related to conditionality, modality, and evaluative language.

Negative Features (Third person pronoun (except 'it'), Coordinating conjunction – phrasal connector, Nouns—Animate): These negative features represent strong negative associations with Factor 4. Third person pronouns (except 'it'), coordinating conjunctions used as phrasal connectors, and animate nouns indicate different linguistic patterns compared to the predominant features of Factor 4. These linguistic elements introduce distinctions in terms of person, sentence structure, and semantic content. In summary, each factor represents a distinct linguistic pattern based on the positive and negative features associated with it. The interpretation of the loadings within each factor provides insights into the linguistic

characteristics that co-occur in the analyzed texts and their importance from a linguistic perspective. These features can relate to verb forms, clauses, adverbs, adjectives, pronouns, and other elements that collectively shape the linguistic structure and style of the texts. These labels align with Biber's multidimensional analysis approach, which focuses on the functional dimensions of language use and how linguistic features can be linked to different communicative functions within texts.

In summary, the factors in this research are characterized by a variety of linguistic features. Each factor represents a different set of linguistic characteristics, and the positive and negative associations help identify patterns in how these features co-occur in the analyzed texts. The factors cover a range of linguistic elements, including verb forms, adverbs, clauses, pronouns, adjectives, conjunctions, and more.

Conclusion

The results of the new multidimensional analysis, derived through the SPSS program, reveal four distinct factors as indicated by the scree plot as well as the derivation of factors on the basis of cut-off point for the salient features. These factors are labeled as follows: (1) Informational prose, (2) Expressive prose, (3) Interactive discourse, and (4) Modality and evaluation. Each of these factors represents a unique aspect of language usage within the academic context.

Each factor represents a distinct linguistic pattern characterized by the presence or absence of specific features. The interpretation of the loadings within each factor provides valuable insights into the linguistic characteristics that co-occur in the texts and their significance from a linguistic perspective. These features encompass a wide range of linguistic elements, including verb forms, clauses, adverbs, adjectives, pronouns, and more, collectively shaping the overall linguistic structure and style of the texts.

The identified factors align closely with Biber's multidimensional analysis approach, which emphasizes the functional dimensions of language use and the intricate relationship between linguistic features and communicative functions within texts. Through this lens, the analysis sheds light on how different linguistic patterns contribute to the overall texture and communicative effectiveness of written discourse.

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