Article

Exploring Cultural Dynamics: Comparative Analysis of Argumentative English Essays Among Pakistani and Chinese Learners using Multidimensional Analysis

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ABSTRACT

This study aims at exploring comparative linguistic variation across Pakistani and Chinese learners' English argumentative essays using a multidimensional analysis (MDA) approach. This study uses a quantitative approach to describing co-occurring linguistic features. The corpus comprising 400 Pakistani and Chinese learners' essays used in this study has been electronically derived from an online source, ICNALE. The representative corpus has been tagged and analysed through MAT tagger. This study addresses how the language of Pakistani and Chinese learners vary comparatively linguistically; it also explores their linguistic characterization which distinguishes their variety through their co-occurring linguistic features using MD analysis by utilizing five dimensions. The study is restricted to only two countries i.e., Pakistan and China, and the size of the data is considerably more restricted to one sub-register of essay writing, namely, argumentative essays. The results indicate that the language of Pakistani learners' essays is informational but Chinese learners' essays are involved in dimension 1 Chinese learners' essays are narrative whereas Pakistanis learners' essays are non-narrative on dimension 2. Dimension 3 specifies that Pakistani learners' essay writings implement that the text is independent of context and contains significant nominalizations while Chinese learners' essay writings are context-dependent in nature. Dimension 4 indicates that Chinese learners' essay writings are more explicit and persuasive specifying extensive use of modal verbs than Pakistani learners' writings. The nature of Chinese learners' essays is abstract, formal, and technical while Pakistani learners' essays are non-abstract, objective, and natural on Dimension 5. This study has shed light on how learners acquire new words and expressions from reading different texts that identify various lexical grammatical aspects writers employ and serve as the fundamental source of variety in their language. The categories of dimensions are developed based on particular linguistic features that are over- or under-utilized by assessing the statistical data.

I. INTRODUCTION

This present study explores the linguistic variation through comparative analysis across Pakistani and Chinese learners' argumentative essays with respect to grammatical and lexical features. By examining co-occurring linguistic characteristics in learners' corpora, this study investigates linguistic patterns of learners' language, such as cohesion, coherence, readability level, etc. along with their roles (Tabassum, Farooq & Mahmood, 2021). So, this study is based on macroscopic analysis and it seeks to offer a framework for comparing and contrasting texts as well as a complete investigation of their linguistic variety by finding the dimensions in a group of

texts (Biber, 1995). The objective of this study is comparing argumentative essays produced by Pakistani and Chinese English language learners.

To investigate the linguistic variation, this study decides to perform MDA (Biber, 1988) and utilizes MAT software to obtain the desired results in terms of normalized frequencies over 100, zscores, dimension scores and linguistic parameters which decide the text types. This study is an exploratory and based on multidimensional approach suitable for studying linguistic variations across the developed corpora of Pakistani and Chinese learners' argumentative essays. In this regard, 800 argumentative essays from an online source, i.e., ICNALE, have been collected from Pakistani and Chinese English language learners. The limitation of this study is that the limited size of data is considerably more restricted to argumentative essays (i.e., limited area). The reason behind choosing the data of Chinese learners is that Pakistan and China have cordial relations with each other.

Biber originally created the MDA method to compare the written and spoken registers of English, widely used to analyze the synchronic and diachronic registers of different languages, specifically English. Biber's MDA model investigates grammatical as well as semantic features of the text. It consists of semantic and grammatical taggers (Xiao, 2009).

Similarly, by proposing that the term 'register' should be understood as a continuous (rather than discrete) notion and listing the numerous situational variables that have been taken into account in register studies, Biber (1993a) attempts to give an overarching framework. In its broadest sense, register describes how language is used differently in various functional settings. This study has utilized corpus linguistics, which analyzes the linguistic structure of a large corpora of text using computational methods (Argamon, 2019).

Moreover, the MD technique has made use of computational tools to 'tag' words for different lexical, grammatical, and syntactic categories, generate frequency counts of linguistic characteristics inside texts, and evaluate the distribution of linguistic features both within and across texts. Instead of analyzing individual language constructs, the study objective of the method is the linguistic analysis of texts, genres, text kinds, styles, or registers. It is corpus-based and is based on the examination of several naturally occurring texts. It combines macro- and microscopic perspectives.

Based on my perspective, many different domains, even specialized ones like academic discourse, have used MD analysis. But my target domain is considerably more restricted to argumentative essays (i.e., limited area). This study studies what kinds of dimensions the corpus generates. Therefore, analysis of argumentative essays of Pakistani and Chinese students have been investigated using MD analysis. Each of the five dimensions is classified individually and then compared.

Under this research, many researchers have been conducted with two methodologies i.e., corpus-based analysis and MDA. Data for research is obtained through a wide range of approaches and arrives in a number of formats. Research technique is essentially the 'how' of any given research activity. Similarly, any data that is collected, examined, and maintained with the goal of generating and verifying novel study results is regarded as research data. Following are the studies conducted by different researchers on different features such as linguistic features, metadiscourse, and structure analysis.

The researches in MDA have been done by many researchers in different language and domain (Reppen, 1994; Grant and Ginther, 2000; Hyland, 2004; Biber and Hared, 2008; Liu and Furneaux, 2013; Weigle and Friginal, 2015; Crosthwaite, 2016; Kim and Nam, 2019; Lin and Lin, 2019b; Vögelin et al. 2019). In term of Pakistani context, some researchers also have done research in multidemensional studies (Rasheed and Mehmood, 2014; Musarrat Azher and Mehmood, 2016; Azher and Mahmood, 2018; Abbas, Mahmood, and Asghar, 2020; Tabassum et al. 2021). However, most of the previous studies, especially in the Pakistani context, focused on only in one context. Therefore, this study fouceses in evaluate the argumentative essays of Pakistani and Chinese students electronically derived from ICNALE. Four hundred essays from each category derived from ICNALE were used as the corpus for this study. Results and discussions are further investigated in this article by using five dimensions using MAT tagger software (1.3), which has been downloaded, installed, and utilized. This program was created in 2013 by Nini using Biber's model (1988). It just

works with normal text. Using Stanford Tagger, data is annotated.

II. METHOD

The present study adopted a quantitative method for a comparative analysis of the argumentative essays written by Pakistan and Chinese learners. These essays used in the present study were derived from ICNALE (Ishikawa, 2007) in an e-version comprising four hundred essays from Pakistan and China. Chinese learners' essays contained 93755 words whereas Pakistani learners' essays contained 94547 words. The tools for data collection were such as Antconc, Kennis word counter, and MAT software.

Initially, data from Chinese and Pakistani learners' essays was derived from an online source, ICNALE. Secondly, the folder was created and all the essays of Pakistan and Chinese students were kept separately after naming them accordingly. Thirdly, four hundred essays of Pakistani and Chinese argumentative essays were compiled into one notepad file in order to analyze it via MAT tagger. After that, the size of all data files was calculated by counting the words in each file. Additionally, Data for the analysis was gathered for research from online sources. Lastly, examples were represented using the textual examples to distinguish between the writings. Chinese and Pakistani students' writing contains a few grammatical mistakes. This study's focus on linguistic variation in argumentative essays led to the tagging and analysis of the data using the Biber's model of MDA. In order to identify linguistic variation, the Biber model's five dimensions were analyzed. Dimension 6 is not analyzed and discussed due to its insignificant features and explainability and the limited number of linguistic features. The three main types of dependent clauses that may be found in D6 are that-complement clauses on verbs, that-complement clauses on adjectives, and that-relative clauses on object position. The comparison of academic works is observed using a quantitative approach. Through statistical factor analysis, co-occurring linguistic characteristics are found, and those traits are then interpreted using MAT tagger in the dimensions file. Information is produced in a separate folder called MAT_MAT_file name. It contains five files, which are listed below:

Dimensional 1 (MAT file name)

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Dimensions (MAT file name)

Statistics (MAT file name)

Type (MAT file name)

Zscore (MAT-file name)

II. RESULTS

Z-scores analyzed by MAT tagger of the linguistic features for the representative corpus as shown in table 4.1 below. The means and standard deviations stated in Biber (1988) are used to generate the z-scores. All z-scores with magnitudes greater than 0.2 will be categorized as "Interesting variables" by the MAT tagger. Only the dimension scores are impacted by the 'z-score correction' option. Moreover, the z-scores of the variables with a mean greater than 1 according to Nini (2014) are used to calculate the dimensional scores which helps in identifying the closest text type to Biber's model. Linguistic features with "[]" indicates that these features are present in various dimension that is interpreted and analyzed for the comparative study accordingly. Also, the table 4.2 given below displays the location of the text's dimensional score text type closest to Biber's eight text types i.e., conversations, academic prose, broadcasts, press reportage, prepared speeches, personal letters, general fiction, and official documents. The program will interpret the closest genre to the selective text i.e., argumentative essays of Pakistani and Chinese learners.

Table 4.1 ANOVA test across Pakistani and Chinese English Argumentative Essays

Dimensions	Value of Sig. (p-value)
Dimension 1	0.0002
Dimension 2	0.0012
Dimension 3	0.0001
Dimension 4	0.0357
Dimension 5	0.0543

Firstly, the p-value of 0.0002 for Dimension 1 suggests that there is a highly significant difference between Pakistani and Chinese English argumentative essays in terms of this dimension. With a p-value of 0.0012 for Dimension 2, there is a statistically significant difference between the essays from the two groups in this dimension. Although the significance might be slightly lower compared to Dimension 1, the result still indicates a meaningful distinction. Next, the p-value of 0.0001 for Dimension 3 signifies a highly significant difference between the essays of Pakistani and

Chinese origin in this dimension. The result reinforces the notion that the essays significantly deviate from each other in this particular dimension. Then, Dimension 4 has a p-value of 0.0357, which suggests that there is a statistically significant difference between the two groups' essays in this dimension. While the significance level is comparatively higher than in the previous dimensions, it still indicates a meaningful difference. For Dimension 5, the p-value is 0.0543. This result indicates a relatively moderate level of significance, suggesting a potential difference between the essays from the two groups.

Table 2 Dimension Scores of Pakistani and Chinese English Argumentative Essays

Filename	D1	D2	D3	D4	D5
CHN	8.04	-2.13	2.44	5.71	1.99
PAK	3.76	-2.62	6.68	0.74	0.43

IV. DISCUSSION

Dimensions interpret the comparison of argumentative essays in Pakistani and Chinese, focusing on certain features accordingly, and examines several linguistic features significant on the basis of negative and positive loadings.

Dimension 1: Involved vs. Informational Discourse Production

In view of Biber (1988), dimension 1 differentiates between involved and informational discourse production which are characterized through positive and negative loadings of co-occurring linguistic features across the text type. On the basis of these features, positive are subtracted from negative loadings for calculating dimension scores. The positive/negative symbol dimension scores lead us to decide the text type whether it is informative or involved. The dimension scores in Pakistani and Chinese learners' argumentative essays have been calculated that Pakistani learners' essays are informational due to the abundance of negative loadings, whereas Chinese learners' essays are involved due to abundance of positive loadings. Therefore, Pakistani learners' essays are characterized through the following features such as hedges, contractions, second person pronouns, private verbs etc., whereas Chinese learners' essays are featured of first-person pronoun, emphatics, possibility modals, pronoun *it* etc. The Chinese texts seem isolated from Biber's text types because it differs on the basis the linguistic features such as nouns, attributive adjectives, BE as main verb,

discourse particles, demonstrative pronouns etc., although the Pakistani texts seem closer to Biber's (1988) prepared speeches on the basis of the linguistic features' results. Texts belonging to this text type are typically texts that present an extreme narrative concern. Therefore, Pakistani learners' essay writings are narrative. However, because of differences in their language structure, Chinese learners' writings lack internal coherence. The functions of the co-occurring linguistic patterns across Pakistani and Chinese learners' essays have been exemplified in Table 3.

Table 3. Textual Examples of Dimension 1 from Pakistani and Chinese learners' essays

PAK	CHN
Restaurant is such a place where every sort of people come... In this way Pakistan's progress will improve… Someone need experience of yourself…. Our government want to check this problem. But now a day it's very difficult for some of the parents to do so the students can help themselves. So, when women is doing part time job, she is neglect her home and children and family… He became a machine, and this causes a mental problem… I am really against the part time job are essential for students. The student might not give proper time to their studies.	She believes that herself is an adult and has the responsibility to support her life… we really should take some measures… we spend most of the time and the energy to concentrate on studies. He works for a factory for nearly one year. They might think smoking-banned in the restaurants harms their rights… It will result in troubles at people's lung. It can not only fulfillment the people who smoke but also not bother the other people who don't smoke. We could develop our ability through the part-time job.

Dimension 2: Narrative vs. Non-Narrative Concerns

In view of Biber (1988), dimension 2 differentiates between narrative and non-narrative discourse production which are characterized through positive and negative loadings of co-occurring linguistic features across the text type. On the basis of these features, positive are subtracted from negative loadings for calculating dimension scores. The positive/negative symbol dimension scores lead us to decide the text type whether it is narrative or non-narrative in nature. The dimension scores across Pakistani and Chinese learners' argumentative essays have been observed that Pakistani learners' essays are narrative in nature due to the abundance of positive loadings, whereas Chinese learners' essays are non-narrative due to abundance of negative loadings. Therefore, Chinese learners' essays are non- narrative due to perfect aspect, past tense, public verbs etc. while Pakistani learners' essays are narrative due to third

person pronoun, public verbs etc. The Pakistani features categorize the text closer to Biber's (1988) academic prose which indicates that these writing genres consist of formal, narrative, informational expositions that are very technical, focused at communicating information. whereas Chinese writings is closer to professional letters. This text style often consists of persuasive or argumentative texts. The functions of the co-occurring linguistic patterns across Pakistani and Chinese learners' essays have been exemplified in Table 4.

Table 4. Textual Examples of Dimension 2 from Pakistani and Chinese learners' essays

PAK	CHN
Some people use part time job to spend his free time in any activity and work. this statement is written in every public place. For this regard, it can be said that it is a public place why all the places comes for different purposes.… On the one side they do the marketing of it and on the other hand they warns the public. The teacher should suggest a good and safe place for students to work. Though some people may argue that the job will distract students' attention to study…	Before I have got into the university, I once thought that I should get some part-time job on my weekends or holidays because … Many studies add to the growing evidence that a ban on smoking in public places seems to have a positive impact… the students who succeeded in being admitted to the colleges find them faced more changes and challenges. He doesn't have time to study what he should learn and have no time to exercise.

Dimension 3: Explicit vs. Context-Dependent Discourse Production

In view of Biber (1988), dimension 3 differentiates between context-independent and context-dependent discourse production which are characterized through positive and negative loadings of co-occurring linguistic features across the text type. On the basis of these features, positive are subtracted from negative loadings for calculating dimension scores. The positive/negative symbol dimension scores lead us to decide the text type whether it is context-independent and context-dependent. The dimension scores across Pakistani and Chinese learners' argumentative essays have been observed that Pakistani learners' essays are context-dependent in nature due to the abundance of negative loadings, whereas Chinese learners' essays are context-independent due to abundance of positive loadings. Therefore, Chinese learners' essays are context independent due to concessive adverbial subordinators, phrasal coordination, predicative adjectives etc. on the other hand, Pakistani learners' essays are context-dependent due to features such as time adverbials, WH relative clauses on object position, place adverbials etc.

Pakistani learners' writings are closer to Biber's (1988) professional letters while Chinese learners' writings are closer to Biber's (1988) popular lore. Politics, history, health, and other areas are explored in texts found in popular fiction (popular lore) and magazines. The functions of the co-occurring linguistic patterns across Pakistani and Chinese learners' essays have been exemplified in Table 5.

Table 5. Textual Examples of Dimension 3 from Pakistani and Chinese learners' essays

PAK	CHN
First people take it as an enjoyment with friends but later it becomes habit. Early in the morning, the people turn to, God But a tobacco slave is at the pipe coughing and spitting… The smoke which he emits from his mouth and the above all are some benefits … and they learn from this fair use of money which they get from their parents at the time of necessity. It mostly begins through the bad company of bad friends whose spoil the habit of the others. Because Pakistani people leave below the poverty line.	Although the money may be not enough, but that is all they have earned by themselves. Many students spend time on shopping, singing, or playing computer games which are pointless. … it is important for our college students to have a part-time job… Though it is hard to carry it out, we have innumerous reasons to support this action… As an adult, it will be shameful for us to ask our parents for money. He said that although it sounded perfect, it was very hard to make the two into the balance.

Dimension 4: Expression of Argumentative Discourse Production

In view of Biber (1988), dimension 4 interprets overt expression of persuasion production which are characterized through positive and negative loadings of co-occurring linguistic features across the text type. On the basis of these features, positive are subtracted from negative loadings for calculating dimension scores. The positive/negative symbol dimension scores lead us to decide the text type whether it is less persuasive or more persuasive. The features on this dimension are related to the speaker's own point of view to persuade the audience. The dimension scores across Pakistani and Chinese learners' argumentative essays have been observed that Pakistani learners' essays are less persuasive in nature due to the abundance of negative loadings, whereas Chinese learners' essays are more persuasive due to abundance of positive loadings. Thus, Chinese learners' essays are more persuasive due to conditional adverbial subordinators, necessity modals, infinitives etc. Alternatively, Pakistani learners' essays are less persuasive in nature due to the predictive modals, split auxiliaries, and suasive verbs. The Chinese text is closer to Biber's text type

named as telephone conversations and prepared speeches while the Pakistani linguistics features classify the text as being closer to Biber's (1988) professional letters. Political and legal speeches, sermons, and university lectures are examples of prepared speeches although the temporal context of telephone conversations is shared. Most speech situations in these types of talks are comparable; the main differences are in the social roles that participants play, the quantity of background information that participants share, and the goal of communication. The functions of the co-occurring linguistic patterns across Pakistani and Chinese learners' essays have been exemplified in Table 6.

Table 6 Textual Examples of Dimension 4 from Pakistani and Chinese learners' essays

PAK	CHN
In this way Pakistan's progress will improve... destination and achievement of destination shall be present in the mind of the students. Although that person is not a machine, but he would do every work…. In European countries women are also chain smokers. A message is also given on cigarette by ministry of health that it is injurious to health. I agree in that smoking should be completely banned at all the restaurants in the country… moving towards part time job. Student living in hostel are commonly moved towards these types of jobs.	If they have a part-time job, they are able to living better with extra money. Though we always emphasize the point that study must come first, it doesn't mean that we cannot have part time job. We should make them clear. They pay for the foods and service so that they ought to enjoy their time in restaurants. Despite its merits, it also brings some problems to solve… Because of this, law says that cigarette case have to show smoking is harmful to health. They must do a good job to promote their ability.

Dimension 5: Abstract vs. Non-Abstract Style

In view of Biber (1988), dimension 5 differentiates between abstract and non-abstract discourse production which are characterized through positive and negative loadings of co-occurring linguistic features across the text type. On the basis of these features, positive are subtracted from negative loadings for calculating dimension scores. The positive/negative symbol dimension scores lead us to decide the text type whether it is abstract and non-abstract. The dimension scores across Pakistani and Chinese learners' argumentative essays have been observed that Pakistani learners' essays are non- abstract in nature due to the abundance of negative loadings, whereas Chinese learners' essays are more inclined towards abstract due to positive loadings. Thus, Pakistani learners' essays are non- abstract due to agentless passives, past participial WHIZ deletion relatives, and stranded preposition while Chinese learners'

essays are abstract due to by-passives, conjuncts, past participial clauses etc. The linguistic features in Chinese learners' writings are closer to Biber's (1988) religion and Pakistani learners' writing categorize the text closer to Biber's (1988) press reportage and professional letters. Politics, sports, society, news stories, finance, and cultural events are all represented in press coverage. Compared to other categories, they are more informal, emotive, and involved. It is said to be an accurate, straightforward reporting of information. The functions of the co-occurring linguistic patterns across Pakistani and Chinese learners' essays have been exemplified in Table 7.

Table 7 Textual Examples of Dimension 5 from Pakistani and Chinese learners' essays

PAK	CHN
Even smoking is very common in restaurants it should be banned because other people do affect by smoking. These students done very honestly and never be afraid to done tough job. Once a person is addicted to it, it is very difficult for him to shake it off… People far away from Islam and down those work which are forbade in Islam. Vegetable fruit and other food items and the has a natural capacity to obscure the dangers gasses, which smokers spread in the atmosphere…. Part time job is really a good habit for students.	However, it also has negative effect on students…. Thus, restaurant is a place where we enjoy delicious food, the atmosphere should not be disturbed by annoying smoke. …Moreover, it can give you some life-experience, such as shopping, living and so on….? Then, based on many surveys, smoking can result in many kinds of disease which lead to death… We have been college students. Instead of playing online games all day long… Second, there are lots of fire accidents being caused by smoking in recent years.

V. CONCLUSION

In this study, the five textual dimensions of MD analysis were used to examine and compare the argumentative writings written by Chinese and Pakistani learners. To address the question of how they differ in terms of their linguistic features using MD analysis of five dimensions, the results indicate the statistically significant differences along each dimension. In conclusion, the linguistic variation indicate that Chinese and Pakistani learners' writings are involved persuasion, with a non-informational focus. They are verbal, interactional, subjective, and generalized in nature. The excessive use of linguistic features is: necessity modals, POMD, PRED, and [SPIN] that indicates that text is involved rather than informative in nature. The major purpose of this study was to compare the dimensions of argumentative writing between Chinese and Pakistani learners' writings. This comparative analysis includes a total of 67

linguistic features. The dimensions are involved and informational discourse production, narrative and non-narrative discourse, context-independent and context-dependent discourse production, overt expression of persuasion, and abstract and non-abstract discourse respectively.

The present can assist future academics in their analysis of linguistic variety and comparative study of argumentative texts. This research can identify various lexical grammatical aspects that writers employ, and which serve as the fundamental source of variety in their language. Findings could have implications for second language teaching and learning by shedding light on how learners acquire new words and expressions from reading different texts. The results of this study are constrained in that they cannot necessarily be applied to other types of essays. The data was restricted to one sub-register of essay writing, namely, argumentative essay writing. Moreover, it is restricted to only two countries i.e., Pakistan and China. The findings from this study could be helpful for future research on comparative literature and second-language writing instruction.

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Appendix 1. Factor Loading Across Pakistani English Argumentative Essays

Dimension 1		Dimension 3	
Positive Features	**Scores**	**Positive Features**	**Scores**
Split infinitives	1000.00	Predicative adjectives	3.19
Total other nouns	2.15	Phrasal coordination	1.85
Pro-verb do	2.03	WH relative clauses on subject position	1.65
Amplifiers	1.77	Nominalizations	0.16
Causative adverbial subordinators	1.59	Pied-piping relative clauses	0.09
Possibility modals	1.51	That relative clauses on subject position	0.00
Analytic negation	0.98	**Positive Features**	**Scores**
Pronoun it	0.75	Concessive adverbial subordinators	-0.13
Sentence relatives	0.75	Place adverbials	-0.53
Existential there	0.44	WH relative clauses on object position	-0.53
Emphatics	0.24	Time adverbials	-1.11
Present tense	0.19	Total adverbs	-1.91
Downtoners	0.12	**Dimension 4**	
Direct WH-questions	0.00	**Positive Features**	**Scores**
Positive Features	**Scores**	Necessity modals	1.81
Attributive adjectives	-0.16	Infinitives	0.80
Discourse particles	-0.17	Conditional adverbial subordinators	0.27
Average word length	-0.18	**Positive Features**	**Scores**
Demonstrative pronouns	-0.27	Suasive verbs	-0.35
WH-clauses	-0.30	Predictive modals	-0.67
Be as main verb	-0.44	Split auxiliaries	-1.12
Independent clause coordination	-0.46	**Dimension 5**	
Hedges	-0.46	**Positive Features**	**Scores**
Total prepositional phrases	-0.49	Conjuncts	0.94
Indefinite pronouns	-0.55	Other adverbial subordinators	0.45
First person pronouns	-0.57	Past participial clauses	0.00
Contractions	-0.61	**Positive Features**	**Scores**
Second person pronouns	-0.62	By-passives	-0.15
Subordinator that deletion	-0.66	Agentless passives	-0.38
Stranded preposition	-0.70	Past participial WHIZ deletion relatives	-0.58
Private verbs	-1.06	Stranded preposition	-0.70
Type-token ratio	-2.13		

Dimension 2	
Positive Features	**Scores**
Third person pronoun	1.16
Public verbs	1.06
Synthetic negation	0.12
Positive Features	**Scores**
Present participial clauses	-0.35
Past tense	-1.12
Perfect aspect	-1.37

Appendix 2. Factor Loading Across Chinese English Argumentative Essays

Dimension 1		Dimension 3	
Positive Features	**Scores**	**Positive Features**	**Scores**
Possibility modals	3.43	Predicative adjectives	2.73
Sentence relatives	2.75	Concessive adverbial subordinators	0.63
Emphatics	2.21	Phrasal coordination	0.52
Direct WH-questions	1.33	WH relative clauses on subject position	0.50
Pronoun it	0.99	That relative clauses on subject position	0.38
Downtoners	0.75	Place adverbials	0.00
Amplifiers	0.65	**Negative Features**	**Scores**
Analytic negation	0.56	Nominalizations	-0.43
Total other nouns	0.54	Pied-piping relative clauses	-0.45
First person pronouns	0.52	WH relative clauses on object position	-0.53
Existential there	0.44	Time adverbials	-0.74
Causative adverbial subordinators	0.35	Total adverbs	-1.64
Pro-verb do	0.34	Dimension 4	
WH-clauses	0.30	**Positive Features**	**Scores**
Second person pronouns	0.22	Necessity modals	2.71
Hedges	0.15	Infinitives	1.86
Subordinator that deletion	0.15	Predictive modals	0.76
Attributive adjectives	0.14	Conditional adverbial subordinators	0.68
Private verbs	0.02	**Negative Features**	**Scores**
Split infinitives	0.00	Suasive verbs	-0.06
Negative Features	**Scores**	Split auxiliaries	-0.24
Present tense	-0.09	Dimension 5	
Average word length	-0.10	**Positive Features**	**Scores**
Independent clause coordination	-0.15	Conjuncts	2.63
Stranded preposition	-0.26	Other adverbial subordinators	0.27
Contractions	-0.28	By-passives	0.00
Demonstrative pronouns	-0.29	Past participial clauses	0.00
Discourse particles	-0.35	**Negative Features**	**Scores**
Be as main verb	-0.53	Stranded preposition	-0.19
Indefinite pronouns	-0.55	Agentless passives	-0.30
Total prepositional phrases	-0.84	Past participial WHIZ deletion relatives	-0.61
Type-token ratio	-0.84		

Dimension 2	
Positive Features	**Scores**
Present participial clauses	1.59
Negative Features	**Scores**
Synthetic negation	-0.13
Third person pronoun	-0.48
Public verbs	-0.70
Past tense	-1.16
Perfect aspect	-1.25