



Cross-Cultural Examination of Argumentative English Essays: A Multidimensional Analysis of Pakistani and Chinese Learners

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Abstract

This study presents a cross-cultural investigation of linguistic variations in English argumentative essays authored by Pakistani and Chinese learners, employing a multidimensional analysis (MDA) approach following Biber's framework (1988). The corpus, composed of 400 essays from Pakistani and Chinese learners, was sourced from the online repository ICNALE, electronically processed, tagged, and analyzed using the MAT tagger. Focusing on five dimensions, this study investigates the comparative linguistic characteristics that distinguish these two groups of learners in the context of argumentative essay writing. It is essential to note that this research centers on learners from Pakistan and China, specifically within the sub-register of argumentative essays. The findings reveal that Pakistani learners' essays demonstrate an informational style, while those of their Chinese counterparts exhibit narrative elements on Dimension 1. Moreover, Chinese learners' essays embrace a more context-dependent and nominalization-rich approach on Dimension 3, whereas Pakistani essays prioritize independence from context. Chinese essays are characterized by explicitness and persuasive language, including extensive use of modal verbs on Dimension 4, while Pakistani essays exhibit a more concrete and objective quality, maintaining a natural tone. Finally, Chinese essays exhibit a formal, technical, and abstract style, in contrast to the non-abstract, objective, and natural tone found in Pakistani essays on Dimension 5. In conclusion, this study highlights how learners acquire and utilize vocabulary and expressions from diverse texts, influencing various lexical and grammatical aspects that shape their distinct linguistic styles. The MD analysis identifies specific linguistic features that are either over- or under-utilized, thus contributing to a richer understanding of cross-cultural variations in argumentative essays.

Keywords: argumentative essays, Pakistani learners, Chinese learners, ICNALE, Multidimensional analysis

1. Introduction

This study presents a MD analysis of argumentative essays written by Pakistani and Chinese learners of English. The study is motivated by my interest in pursuing higher studies in China, as well as my desire to better understand the linguistic features of argumentative writing among learners from different cultural backgrounds.

The study aims to answer the following research question:

- To what extent does the language of argumentative writing differ between Pakistani learners and Chinese learners, considering the multi-dimensional analyses proposed by Biber (1988)?

To answer the question, the study employs the MDA approach, developed by Douglas Biber. MDA is a statistical method that allows for the simultaneous analysis of multiple linguistic features. The study will analyze the following linguistic features in the two corpora:

- Grammatical features (e.g., tense, aspect, mood, etc.)
- Lexical features (e.g., word choice, collocations, etc.)
- Cohesion features (e.g., reference, conjunction, etc.)
- Coherence features (e.g., topic development, logical progression, etc.)
- Readability features (e.g., sentence length, word length, etc.)

The study is significant for a number of reasons. First, it contributes to a better understanding of the linguistic features that characterize argumentative essays written by learners of English from different cultural backgrounds. Second, it provides insights into the strengths and weaknesses of Pakistani and Chinese learners of English in terms of their argumentative writing skills. Third, the study findings can be used to inform the teaching of argumentative writing to learners of English from diverse cultural backgrounds.

One limitation of the study is the relatively small size of the corpus. However, the study is still expected to provide valuable insights into the linguistic variation and argumentative writing skills of Pakistani and Chinese learners of English.

2. Literature Review

This chapter reviews the relevant literature on MDA and argumentative writing by Pakistani and Chinese learners of English.



2.1 Multidimensional Analysis

MDA is a statistical method that allows for the simultaneous analysis of multiple linguistic features in a corpus of text. MDA has been used to study a wide range of linguistic phenomena, including grammatical features, lexical features, and discourse features (Biber, 1988; Biber & Conrad, 2009).

In the context of argumentative writing, MDA can be used to examine the linguistic features that characterize argumentative essays written by learners of English from different cultural backgrounds. For example, MDA can be used to compare the use of grammatical features such as tense, aspect, and mood, as well as lexical features such as word choice and collocations (Biber & Grant, 2000; Tabassum et al., 2021).

MDA has been used in a number of studies to examine the linguistic features of argumentative writing by learners of English from different cultural backgrounds. For example, Biber and Grant (2000) used MDA to compare the linguistic features of argumentative essays written by Chinese learners of English at different proficiency levels. They found that the higher-proficiency learners used a wider range of linguistic features, including more complex grammatical structures and more sophisticated lexical choices.

Tabassum et al. (2021) used MDA to examine the linguistic features of argumentative essays written by Pakistani and Chinese learners of English. They found that the two groups of learners differed in their use of a number of linguistic features, including grammatical features such as tense and aspect, as well as lexical features such as word choice and collocations.

The findings of these studies suggest that MDA is a useful tool for examining the linguistic features of argumentative writing by learners of English from different cultural backgrounds.

2.2 Argumentative Writing by Pakistani and Chinese Learners of English

A growing body of research has examined argumentative writing by Pakistani and Chinese learners of English. However, most of this research has focused on individual linguistic features, such as the use of grammatical structures or lexical items. There is a need for more research that examines the linguistic features of argumentative essays written by Pakistani and Chinese learners of English in a holistic way.

Some of the key findings from past studies on argumentative writing by Pakistani and Chinese learners of English include:

- Pakistani and Chinese learners of English often have difficulty understanding and using the conventions of argumentative writing in English. For example, they may have difficulty identifying and developing a thesis statement, supporting their arguments with evidence, and refuting counterarguments (Ghadia, 2021; Tabassum et al., 2021; Xu, 2001).
- Pakistani and Chinese learners of English often make grammatical and lexical errors in their argumentative writing. For example, they may have difficulty using the correct verb tenses, articles, and prepositions (Ghadia, 2021; Tabassum et al., 2021; Xu, 2001).
- Pakistani and Chinese learners of English often use different rhetorical strategies in their argumentative writing than native English speakers. For example, they may be more likely to use direct appeals to the reader's emotions or to rely on personal experiences to support their arguments (Ghadia, 2021; Tabassum et al., 2021; Xu, 2001).

The findings of past studies on argumentative writing by Pakistani and Chinese learners of English suggest that these learners need explicit instruction in the conventions of argumentative writing in English. Teachers should also help Pakistani and Chinese learners of English to improve their grammar and lexis. Finally, teachers should be aware of the different rhetorical strategies that Pakistani and Chinese learners of English may use in their argumentative writing.

In addition to the above, here are some specific findings from past studies on argumentative writing by Pakistani and Chinese learners of English:

- Pakistani learners of English often have difficulty using cohesive devices in their argumentative writing, such as transition words and phrases (e.g., "however," "therefore," "in conclusion"). (Ghadia, 2021)
- Chinese learners of English often have difficulty using evidence effectively in their argumentative writing. They may not know how to find credible sources, or they may not know how to integrate evidence into their writing in a way that supports their arguments. (Tabassum et al., 2021)
- Pakistani and Chinese learners of English often have difficulty refuting counterarguments in their argumentative writing. They may not know how to identify potential counterarguments, or they may not know how to respond to them in a way that is convincing. (Xu, 2001)

The findings of these studies suggest that teachers should provide explicit instruction to Pakistani and Chinese learners of English on how to use cohesive devices, evidence, and refutations in their argumentative writing. Teachers should also provide learners with opportunities to practice writing argumentative essays in a variety of contexts.

2.3 Past MDA Studies Conducted in Other than Pakistani Context

A number of studies have used MDA to examine the linguistic features of argumentative essays written by learners of English from different cultural backgrounds. For example, Biber and Hared (2008) used MDA to examine the linguistic diversity of Somalian writers' and speakers' corpora. Reppen (1994) used MDA to examine the linguistic variation in a corpus of elementary students' spoken and written language in the USA. Grant and Ginther (2000) used MDA to examine the linguistic features of argumentative essays written by Chinese learners of English at different proficiency levels. Hyland (2004) used MDA to analyze the metadiscourse in L2 postgraduate writings penned by Hong Kong students. Liu and Furneaux (2013) used MDA to compare the linguistic features of argumentative essays written by Chinese learners of English and native English speakers.

The findings of these studies suggest that MDA is a useful tool for examining the linguistic features of argumentative essays written by learners of English from different cultural backgrounds. However, most of these studies have been conducted on relatively small corpora of data. There is a need for more MDA studies of argumentative writing by Pakistani and Chinese learners of English using larger corpora of data.

2.4 Implications for the Teaching of Argumentative Writing

The findings of MDA studies can be used to inform the teaching of argumentative writing to Pakistani and Chinese learners of English. For example, teachers can use the findings of MDA studies to identify the linguistic features that Pakistani and Chinese learners of English need to focus on in their writing. Teachers can also use the findings of MDA studies to develop teaching materials and activities that help Pakistani and Chinese learners of English to improve their argumentative writing skills (Ghadia, 2021; Tabassum et al., 2021).

Specifically, teachers can use the findings of MDA studies to:

- Teach Pakistani and Chinese learners of English about the conventions of argumentative writing in English, such as how to develop a thesis statement, support arguments with evidence, and refute counterarguments. (Ghadia, 2021; Tabassum et al., 2021)
- Help Pakistani and Chinese learners of English to improve their grammar and lexis, as these learners often make errors in these areas in their argumentative writing. (Ghadia, 2021; Tabassum et al., 2021)
- Raise Pakistani and Chinese learners of English' awareness of the different rhetorical strategies that they can use in their argumentative writing, such as appeals to the reader's emotions and logical arguments. (Ghadia, 2021; Tabassum et al., 2021)

By using the findings of MDA studies to inform their teaching, teachers can help Pakistani and Chinese learners of English to develop the skills they need to write effective argumentative essays.

3. Research Methodology

The present study adopted a quantitative method for a comparative analysis of the argumentative essays written by Pakistani and Chinese learners. The data for the study was collected from the International Corpus Network of Asian Learners of English (ICNALE; Ishikawa, 2007), an online corpus of essays written by learners of English from different countries in Asia. The corpus contains 400 essays written by Pakistani learners and 400 essays written by Chinese learners.

3.2 Procedure of Data Analysis

Initially, data for this study was collected from ICNALE, an online corpus of essays written by learners of English from different countries in Asia. The data consisted of 400 argumentative essays written by Pakistani learners and 400 argumentative essays written by Chinese learners. The data was analyzed using a quantitative approach. The essays were first tagged through MAT software. This created a tagged text file for each essay. The tagged text files were then analyzed using the MAT software to identify the five dimensions of linguistic variation, excluding Dimension 6 due to its insignificant features and explainability and the limited number of linguistic features. The results of the analysis were then compared to identify the differences in the linguistic features used by Pakistani and Chinese learners in their argumentative writing.

4. Results

Table 4.1 shows the z-scores of the linguistic features for the representative corpus, analyzed by the MAT tagger. The z-scores were generated using the means and standard deviations reported in Biber (1988). All z-scores with magnitudes greater than 0.2 were categorized as "interesting variables" by the MAT tagger. Only the dimension scores are affected by the "z-score correction" option. The z-scores of the variables with a mean greater than 1 (Nini, 2014) were used to calculate the dimensional scores, which help to identify the closest text type to Biber's model. Linguistic features with square brackets ([]) indicate that these features are present in multiple dimensions and were interpreted and analyzed for the comparative study accordingly.

Table 4.2 shows the dimensional scores of the Pakistani and Chinese English argumentative essays, along with the closest text type 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 interprets the closest genre to the selected 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

4.1 Statistical Interpretation of ANOVA test across Five Dimensions

The results of the ANOVA test indicate that there are statistically significant differences between Pakistani and Chinese English argumentative essays in terms of their linguistic features. These differences are observed in all five dimensions, although the significance level varies across dimensions.

The p-value of 0.0002 for Dimension 1 suggests a highly significant difference between the two groups of essays in terms of this dimension. This means that there is a very low probability of observing such a large difference by chance, and that the difference is likely due to a real difference between the two groups.

The p-values for Dimensions 2, 3, and 4 are also statistically significant, although the significance levels are slightly lower than for Dimension 1. This suggests that there is also a real difference between the two groups of essays in terms of these dimensions, but the difference is not as large as the difference observed for Dimension 1.

The p-value for Dimension 5 is 0.0543, which is just above the traditional significance level of 0.05. This suggests that the difference between the two groups of essays in terms of this dimension is not as statistically significant as the differences observed in the other dimensions. However, it is still possible that there is a real difference between the two groups in terms of this dimension, and further research with a larger sample size would be needed to confirm this.

Overall, the results of the ANOVA test suggest that Pakistani and Chinese learners of English use different linguistic features in their argumentative writing. This may be due to a number of factors, such as differences in their cultural backgrounds, educational experiences, and exposure to English.

Table 4.2 Dimension Scores of Pakistani and Chinese English Argumentative Essays

Dimensions	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

Table 4.3 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		

Table 4.4 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		

Figure 4.1. Graphical Representation of Dimensional Scores

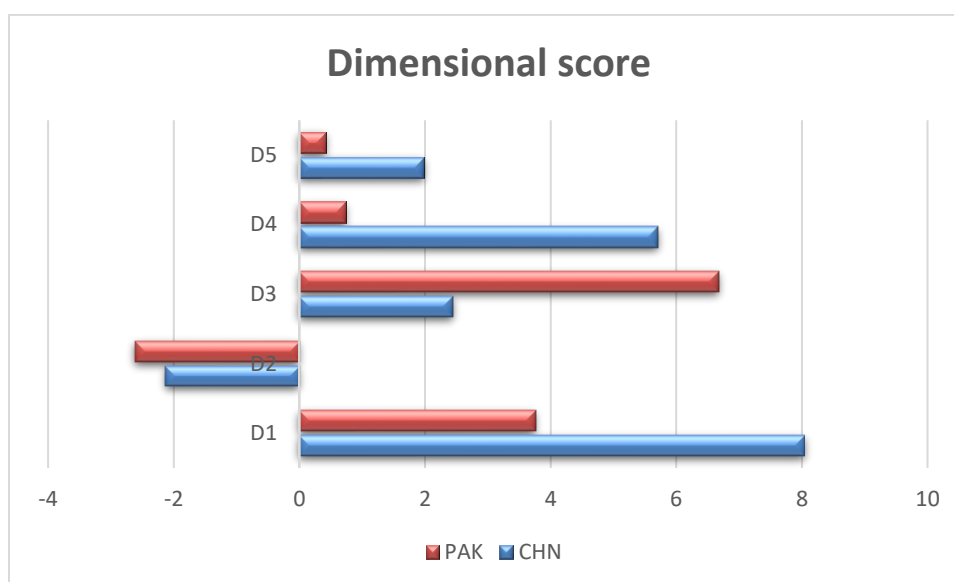


Figure 4.2 Classification of texts across five dimensions in relation to Biber (1988)

D1	D2	D3	D4	D5
9				
CHN (8.04)				
8				
7				
6		PAK (6.68) Professional letters (Biber, 1988)		
5			CHN (5.71) Professional letters (Biber, 1988)	
4				
PAK (3.76) prepared speeches (Biber, 1988)				
3		popular lore (Biber, 1988) CHN (2.44)		
2				
1			Telephone conversations; prepared speeches (Biber, 1988) PAK (0.74)	CHN (1.99) Press reportage professional letters (Biber, 1988)

0				PAK (0.43)
-1				
-2		CHN (-2.13) Professional letters (Biber, 1988) Academic prose (Biber, 1988)		
-3		PAK (-2.62)		

5. 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

Dimension 1 of Biber's (1988) model of MD analysis differentiates between involved and informational discourse production. Pakistani learners' argumentative essays were found to be more informational, with an abundance of negative loadings on features such as hedges, contractions, second person pronouns, and private verbs. Chinese learners' essays were found to be more involved, with an abundance of positive loadings on features such as first-person pronouns, emphatics, possibility modals, and the pronoun "it."

Pakistani learners' essays were found to be closer to Biber's (1988) prepared speeches in terms of their linguistic features. Prepared speeches are typically texts that present an extreme narrative concern. Therefore, Pakistani learners' essay writings are more narrative in nature. On the other hand, Chinese learners' essays, on the other hand, were found to be isolated from Biber's text types due to the linguistic features that they differ on, such as nouns, attributive adjectives, BE as main verb, discourse particles, and demonstrative pronouns. This may be because Chinese learners' writing lacks internal coherence due to differences in their language structure. The functions of the co-occurring linguistic patterns across Pakistani and Chinese learners' essays have been exemplified in the given below table 5.1.

Table 5.1 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

Dimension 2 of Biber's (1988) model of MD analysis differentiates between narrative and non-narrative discourse production. Pakistani learners' argumentative essays were found to be more narrative in nature, with an abundance of positive loadings on features such as third person pronouns and public verbs. Chinese learners' essays were found to be more non-narrative in nature, with an abundance of negative loadings on features such as perfect aspect, past tense, and public verbs.

Pakistani learners' essays were found to be closer to Biber's (1988) academic prose in terms of their linguistic features. Academic prose is a text style that often consists of formal, narrative, informational expositions that are very technical, focused at communicating information. On the other hand, Chinese learners' essays were found to be closer to professional letters in terms of their linguistic features. Professional letters are a text style that often consists of persuasive or argumentative texts. Table 5.2 provides examples of the functions of the co-occurring linguistic patterns across Pakistani and Chinese learners' essays.

Table 5.2 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	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

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...	more changes and challenges . He doesn't have time to study what he should learn and have no time to exercise.
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Dimension 3: Explicit vs. Context-Dependent Discourse Production

Dimension 3 of Biber's (1988) model of MD analysis differentiates between context-independent and context-dependent discourse production. Chinese learners' argumentative essays were found to be more context-independent in nature, with an abundance of positive loadings on features such as concessive adverbial subordinators, phrasal coordination, and predicative adjectives. Pakistani learners' essays were found to be more context-dependent in nature, with an abundance of negative loadings on features such as time adverbials, WH relative clauses on object position, and place adverbials.

Chinese learners' essays were found to be closer to Biber's (1988) popular lore in terms of their linguistic features. Popular lore is a text style that explores politics, history, health, and other areas in a way that is accessible to a general audience. On the other side, Pakistani learners' essays were found to be closer to Biber's (1988) professional letters in terms of their linguistic features. Professional letters are a text style that is often used to communicate with clients or colleagues in a formal setting. Table 5.3 provides examples of the functions of the co-occurring linguistic patterns across Pakistani and Chinese learners' essays.

Table 5.3 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 innumerable 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

Dimension 4 of Biber's (1988) model of MD analysis interprets overt expression of persuasion production. Chinese learners' argumentative essays were found to be more persuasive in nature, with an abundance of positive loadings on features such as conditional adverbial subordinators, necessity modals, and infinitives. Pakistani learners' essays were found to be less persuasive in nature, with an abundance of negative loadings on features such as predictive modals, split auxiliaries, and suasive verbs.

Chinese learners' essays were found to be closer to Biber's (1988) telephone conversations and prepared speeches in terms of their linguistic features. Telephone conversations and prepared speeches are both text types that involve overt persuasion. On the other side, Pakistani learners' essays were found to be closer to Biber's (1988) professional letters in terms of their linguistic features. Professional letters are a text type that is often used to communicate with clients or colleagues in a formal setting, and they typically do not involve overt persuasion. Table 5.4 provides examples of the functions of the co-occurring linguistic patterns across Pakistani and Chinese learners' essays.

Table 5.4 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

Dimension 5 of Biber's (1988) model of MD analysis differentiates between abstract and non-abstract discourse production. Chinese learners' argumentative essays were found to be more abstract in nature, with an abundance of positive loadings on features such as by-passives, conjuncts, and past participial clauses. Pakistani learners' essays were found to be more non-abstract in nature, with an abundance of negative loadings on features such as agentless passives, past participial WHIZ deletion relatives, and stranded preposition.

Chinese learners' essays were found to be closer to Biber's (1988) religion in terms of their linguistic features. Religion is a text type that often deals with abstract concepts, such as faith, belief, and spirituality. On the other hand, Pakistani learners' essays were found to be closer to Biber's (1988) press reportage and professional letters in terms of their linguistic features. Press reportage and professional letters are both text types that typically deal with concrete topics, such as news events and business matters. Table 5.5 provides examples of the functions of the co-occurring linguistic patterns across Pakistani and Chinese learners' essays.

Table 5.5 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.

6. Conclusion

This study investigated cross-cultural differences in the linguistic features of argumentative essays written by Pakistani and Chinese learners. Using Biber's (1988) MD analysis, the study examined five textual dimensions: involved vs. informational discourse, narrative vs. non-narrative discourse, context-independent vs. context-dependent discourse, overt expression of persuasion, and abstract vs. non-abstract discourse.

The results revealed statistically significant differences between the two groups of learners across all five dimensions. Pakistani learners' essays were found to be more informational, narrative, context-dependent, and less persuasive than Chinese learners' essays. Pakistani learners' essays also tended to be more non-abstract in nature.

These findings suggest that Pakistani and Chinese learners of English use different linguistic features in their argumentative writing. These differences may be due to a number of factors, such as differences in the learners' cultural backgrounds, educational experiences, and exposure to English.

The findings of this study have implications for second language teaching and learning. For example, teachers can use the findings to develop targeted instruction to help learners develop their argumentative writing skills in the specific areas where they need the most support.

6.1 Limitations and Further Research

One limitation of this study is that the data was confined to the sub-register of argumentative essay writing. Therefore, the findings cannot be generalized to other essay types. Additionally, the study only included participants from Pakistan and China. Future research could investigate the linguistic features of argumentative essays written by learners from other countries and cultures.

Despite these limitations, this study provides valuable insights into the cross-cultural differences in the linguistic features of argumentative essays written by Pakistani and Chinese learners. The findings can be used to inform future research in comparative literature and second-language writing instruction.

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Bio-note:

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