

A COMPARATIVE ANALYSIS OF DISCOURSE MARKERS IN NON-NATIVE ENGLISH TEXT

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Abstract

This study examines the use of Discourse Markers (DMs) in the writing of BS English and Mathematics undergraduate non-native learners of English. According to Fraser's Taxonomy, discourse markers are classified into four categories: 1) contrastive, 2) elaborative, 3) inferential, and 4) temporal markers. This study aims to investigate the awareness and functions of DMs in the academic writing of undergraduate learners. For analysis, the researcher applied a mixed-method research design and purposive sampling technique. For data collection, persuasive essays were voluntarily written by learners from both departments. The total number of participants was 100. The essays were based on forty different topics. All participants completed this task as an assignment. The data were submitted within the assigned time. The reason was that the focal point was to analyze the use of DMs rather than the reliability of the text. Afterward, the frequency of DMs was examined with the help of AntConc software. The interpretation of these analyzed markers indicated the facilitation or hindrance in the writing of these learners. This comparative study provides valuable evidence not only for learners but also for language teachers regarding the awareness, accurate use, and classification of DMs in academic writing.

Keywords: *Discourse Markers, BS English and BS Math, Fraser's Taxonomy, Contrastive, elaborative, temporal and inferential Discourse Marker*

Introduction

1.1 Defining the Discourse Markers

Writing is considered a very challenging task for non-native learners of English. This present study suggests the use of Discourse Markers: “an expression which signals the relationship of the basic message to the foregoing discourse” in an academic written text (Ali & Mahadin 2016). The use of DMs connects the ideas and information in any kind of written discourse. It is not only used for appropriate writing techniques but also significant for the reader's understanding. In their writing, this expression connects the reader and the writer's ideas and information. On the other hand, the misuse and overuse of DMs create hindrances in comprehension. It can create ambiguity and overgeneralization. It shows that the use of this specific technique in writing skill engages the readers in a meaningful way. To investigate these linking words and phrases, this research is concerned with the functional classification of DMs of Fraser's (2006).

Table 1

Fraser's (2006) Model of Discourse Markers

Contrastive markers	Elaborative markers	Inferential markers	Temporal markers
But, alternatively, although, contrariwise	And, above all, also, alternatively, analogously	So, after all	Then



Contrary to expectations, conversely, (this/that), even so, however, in spite of (this/that), in comparison (with, this/that), in contrast (to this/that)	Besides, by the same token, correspondingly, equally, for example	All things considered	After
	For instance, further (more), in addition	As a conclusion	As soon as, before
		As a consequence (of this/that)	Eventually, finally
		As a result (of this/that)	First

1.1.1 *Classification of the Discourse Markers*

For analysis of the functional class of Discourse Markers, the four different types are markers are categorized:

In the Contrastive markers, the words or phrases are: *but, alternatively, and in spite of* are included. Elaborative markers deal with: *and, for instance, equally* are mentioned the Fraser's Taxonomy. The third type which is the Inferential markers includes: *As a conclusion, so, after all*, are mentioned. Then, the Temporal markers highlight the use of *then, eventually, after, first* in order to make the discourse more coherent. So, the central focus of this research is to analyze Fraser's Taxonomy which is the contribution of 2006.

1.2 **Statement of the Problem**

The problem of discourse markers in learner's writing are still present. To enhance the clarity of the text, the coherence is significant for comprehensible understanding. In writing, the excessive and inappropriate use of the DMs makes the informal and disorganized structure of the context. To maintain the overall quality of the text, the appropriate use of the DMs is essential for non-native English students.

This study will examine the use of Discourse Markers in graduated non-natives of English. The focal point of this study is to find out the specific types of DMs in the writing skills of undergraduates. For this research gap, a comparison of BS English and BS Math students of GIFT University will participate in the collection of data.

1.3 **Research Objectives**

The objectives of this research are as follows:

- To investigate the difference in the frequency of Discourse Markers used in the written compositions of non-native English students.
- To examine the functions of Discourse Markers in facilitating or creating hindrances in the writing of non-native English speakers.



1.4 Research Questions

This study seeks answers to the following research questions:

1. What is the difference in frequency of Discourse Markers used in written composition of non-native English students?
2. What is the function of the DMs to facilitate or create hindrances in non-native English speakers?

1.5 Significance of the Study

The researcher suggests that to decrease the misuse of DMs, the following points are more effective for non-natives of English:

- For the awareness of DMs, the instructor should be trying to engage students by doing writing exercises. To write essay writing, by using DMs practice either in a story or narrative form. During class tasks of writing, the emphasis should be on a process-oriented approach rather than a product-oriented approach. It reflects the vitality of DMs to make coherence in any writing.
- Additionally, teachers need to let the students that DMs only make relationships in text-explicit but, they do not build the connection within the text. For the significance of this research, conversation can be somewhat cohesively managed by DMs. Thus, teaching students how to create cohesive and semantically coherent discourse not just by employing DMs correctly and remedially, but also by utilizing other cohesive devices is an important concern of this study.
- The misuse of DMs, forms, and appropriation must be taken into examination for effective clarification of meaning. For this, designing some exercises for learners to determine the correct usage in context is one of the best ways to make meaning, form, and clear appropriation.
- This study also signifies the selection of which category of DMs to teach first must be taken into consideration. It implicates the learner's motivation for learning how to utilize DMs, whether they must use them in formal or written discourse, are the most important factor of this research.

1.6 Synopsis

This research work is classified into five chapters. Chapter One is an *introduction* that presents the main features of this dissertation. Chapter Two is a *Literature Review* that explains the relevant previous research according to this study. It also covers the theoretical framework of this study, which will emphasize Fraser's (2006) model of DMs. Then, it will highlight the research gap that will be different from the previous relevant studies. Chapter 3 is a *Research Methodology* that will describe the collection of data and the procedure for how the selected data can be analyzed with the help of a theoretical framework. Chapter 4 is a *Data Analysis* and it will explain the research gap of your study that will differentiate this present study from other relevant studies. Chapter 5, *Conclusion* will highlight the gaps and the table of data analysis. This chapter will also explain the implications and recommendations for further analysis.

Literature Review

Shen (2007) conducted a study to examine the similarities and differences of DMs. In this study, one-way ANOVA was highlighted to find out the gap in the three groups. In the analytical framework, 3 groups (JNNS, CNNS and NS) of universities were involved based

on 300 compositions and written discourse for the analysis that consisted of native and non-native speakers. The objective of this study was to find out the vitality of DMs in understanding the text and their differences among these three groups. The results assessed that NS used 86 kinds of DMs, JNNS, 40, and CNNS 51. It was based on the frequency. The frequency was very huge and different. This result shows that JNNS and CNNS have incomplete knowledge about DMs as compared to NS. It implies that teachers should make a greater effort to achieve an in-depth understanding of DMs.

Fuller (2003) examines a study to investigate the use of discourse markers between native and non-native speakers in different contexts such as speech, interviews, and conversation. In it, ANOVA was mentioned to elaborate on the use of DMs in different contexts. In the analytical framework, the first data was interviewed and conducted by native English speakers. The second context was the elicited narrative and the third was the casual conversation. It was based on the six native and non-native English speakers respectively. The objective of this study is to analyze the semantic relationship and the truth conditions with the use of DMs. The results indicate that native speakers used “oh” and “well” excessively in conversation context; while non-natives do not show this difference. It shows that non-natives used the markers according to the context. It also investigates that both speakers have different modes of speaking in multiple contexts.

Dumlao and Wilang (2019) examine a study to investigate the use of DM variations in the L1 and L2 users of English. In their study, Fraser’s taxonomy (functional approach) on discourse markers was considered to analyze the data. In the analytical framework, 24 participants’ academic essays were voluntarily taken to analyze the DM. The purpose of the study was to find out the notable differences among them. The results were demonstrated based on the manual frequency with the help of Fraser’s Taxonomy. The conclusion explores that L1 users of English used 39 DMs in the written text specifically, the elaborative markers; while the L2 English user’s writings show the excessive use of DMs. It was visible that the researcher investigated that L2 users of English show the overuse of DMs. So, this concluding statement implies the awareness of the use of DMs should be very magnificent for writing any type of context.

Asik and Cephe (2013) examined the discourse markers produced by non-native English speakers and their occurrences in spoken English by contrasting them with those used in spoken discourse by native English speakers. This research is a corpus-based study mainly quantitative analysis. It was conducted by the use of descriptive statistics to find out the categorization of DMs through frequency counts. This study aims to explore the necessity of DMs in the spoken discourse of non-native speakers of English. For analysis, the data was collected from two distinct corpora: a research corpus from the Michigan Corpus of Academic Spoken English (MICASE) for native data, and a research corpus created especially for the current study for non-native data. For the native and non-native speakers, the 20 students were involved as undergraduate students and they were doing it by presentation on different topics. Data analysis has been done on the frequency of DMs compared to the overall word count in each corpus. The results show that Turkish non-native English speakers do not use DMs in their spoken speech sufficiently or efficiently, as compared to native speakers.

Albeshar, Farid et al. (2017) conducted a study on Discourse Markers (DMs) in primary and secondary schools regarding the EFL classes. This study aims to find out the specific three (ok, so, and) discourse markers in the natives and non-natives. To find out this functional distribution, the qualitative and quantitative analyses of the recorded transcriptions were collected to examine the use of DMs. For analysis, typical and other discourse organization classrooms were arranged for the primary and secondary students randomly. To find the gap, the stimulating environment of the classroom context was clear and was reflected very coherently. For frequency, the specific corpus-based framework was selected. The results mentioned the diversified use of DMs was equally used in transitions, specifically the “ok” that provides help to non-natives in the classroom environment and interaction with others. So, this result highlights the structure for EFL teachers about the use of DMs for proper arrangement.

Vickov and Jakupcevic (2017) investigates the study of how non-native (Croatian) EFL teachers utilize discourse markers (DMs) when talking with primary and secondary school students. This study is based on qualitative and quantitative methods to examine the reading of transcripts and using the AntConc software for more detail. This study aims to provide additional information on the roles and applications of DMs in teacher-student conversations in Croatian EFL at two competence levels, especially in the last years of primary and secondary education. In the research methodology, two 45-minute classes were recorded for each teacher. Three of the teachers were recorded while teaching classes in the final year of primary school and three in the final year of secondary school. The teachers were provided the digital voice recorders. The classes depend on different language activities and the focal point was the listening skills. None of them had lived longer than a year in an English-speaking country or were native English speakers. The results of this study indicate that there is not much difference in the methods of teachers DM use with primary and secondary school learners.

Shimada (2014) conducted a study about the use of discourse markers in the speech of Japanese learners of English. In this study, qualitative and quantitative analysis of the learner corpus data was mentioned. To find out the DMs use, the researcher collected the corpora of the native and non-native English learners' speech. The data was collected with EFL learners that were from the Louvain International Database of Spoken English Interlanguage (LINDSEI) and also for native English speakers from the NICT JLE Corpus. The first data was a spoken corpus. It was based on the interviews produced by university undergraduates with different L1 backgrounds. All were higher intermediate and advanced students of English. The spoken corpus was also categorized into 11 sub corpora. The interview timing was 15 minutes and it was classified into further three questions. The first question was to warm up for the topic understanding. Then, free and informal discussion with the interview was the second question and last was a picture description. For the speech analysis, he used the specific methodology called Contrastive Interlanguage Analysis. Then, the frequency rates highlighted a huge difference between native speakers of English and Japanese learners. After this finding, both approaches were used in order to achieve the specific use of DMs in different speeches. This finding shows the results of this study is that Japanese learners used "so" discourse markers more frequently as compared to non-native English learners. Additionally, those learners also used



interpersonal and cognitive function markers such as "you know, I mean" more and "just" in less frequent ways. This research suggests that the language instructors should design the appropriate input about DMs for the Japanese learners.

Yulita, Rukmini et al. (2021) conducted a comparative study with the use of Discourse Markers in English speeches between the native and non-native learner of English. This study aim was to analyze the function of DMs and how the speakers used them in their speeches. It employed a qualitative approach to analyze the spoken discourse study. In methodology, the data was collected in the form of videos of English speeches performed by natives and non-natives of English. All videos were taken from YouTube Channels. For analysis, some steps were considered important such as transcribing the videos, data identification, division of DMs according to Frasers 2009 model, counting the whole use of DMs and data interpretation. This qualitative study showed the clear differences between the native and non-natives speakers. The results showed that total DMs produced by non-natives was 301 utterances, while native- speakers were 269 utterances. It showed the use of DMs in English speech was obligatory. Meanwhile, it also highlighted the excessive use of DMs rather than natives. This research implies the use of DMs could give advantage to English teaching and learning processes.

Trillo (2002) examined a study about the pragmatic fossilization of discourse markers in non-native speakers of English. In this study, corpus -based analysis is mentioned. The aim of this research was to explore the possible origins, it's characteristics and it's implications in the second language. In research methodology, two groups of natives and non-natives were selected for data collection. These two random groups based on the children and the adults. The finding is that to analyse the extent exposure of the DMs. In order to establish the comparative parameter shows the three perspectives. The result highlights the three different perspectives such as the different rate of development for language, action-based approach and lack of interaction-based approach. It signifies the interactionist approach to demonstrate the DMs in non-native speakers of English.

This study examines the significance of Discourse Markers in EFL writing. In this study, the quantitative method was used in an adapted form of survey. This research purpose is to determine teacher perspectives on the use of DMs in the development of their adult EFL students' writing abilities in Saudi Arabia. The researchers updated the questionnaire. The original questionnaire by Fung was based on speaking and listening skills. In it, the focus was to better understand the participant's thoughts on the usage of DMs in writing. On the general questionnaire design's advantages and disadvantages from the insider perspective, 20 ELT practitioners from Mainland China, Hong Kong, Taiwan, and England monitored and observed the questions and provided input. The questionnaire was based on five different conditions and each one contained five items. Descriptive statistics (mean and standard deviation), confidence intervals, and test hypotheses were used to examine the data. The results of this study show that generally speaking, Saudi EFL teachers who teach adult EFL learners in writing believe that DMs are a necessary part of effective free-flowing writing.

Research Methodology

3.1 Research Design

The domain of this research paper is a *mixed-method* approach. This researcher used qualitative and quantitative methods, because, the data was presented in the form of words, sentences, clauses, or phrases. Firstly, the "Qualitative methods are human and social science methods that offer several traditions. These traditions may be the type of method for collecting analysis data, and written reports, or the overall design which includes all phases in the research process" (Creswell, 1944). It is also known as methods of research that make use of sources of information such as words that have been spoken or written, along with their character and attitude. Moreover, those who want to learn more than they already know may find this analysis useful.

Secondly, the role of the quantitative approach in this research shows statistical data. This enhances the validity of the research and it allows the researcher to provide clear evidence by reducing the biased potential in the analysis. So, the mixed method is considered a powerful toolkit. Both approaches complement each other's strengths and weaknesses. For comprehensive understanding, the researcher used the quantitative method, particularly, Antconc software, to analyze the frequencies and categories of DMs in persuasive essay writings. Then, the researcher used the qualitative approach to interpret the analyzed and collected markers in non-native English students.

3.2 Sampling

Purposive sampling is also an approach in which the researcher uses his or her judgment to select members of the general population to take an active role in the research study. It is also referred to as subjective, judgmental, or selective sampling. The non-probability sampling technique known as "purposeful sampling" is used when the researcher makes the decisions about which items to include in the sample. Researchers frequently think that by applying good judgment and obtaining an appropriate sample, they may save time. The researchers must consider these people's distinctive features to assess their study question. In other words, the subjects are chosen by the researchers "on design." When you need to acquire significantly from limited data and are knowledgeable enough about the subject to recognize which topics are crucial to your research, use purposive sampling. This strategy can assist you in concentrating on a particular subpopulation, key players in a method, typical situations, or unique cases.

3.3 Data Collection

The data was collected with the fulfillment of the following requirements.

- The selected topic was "persuasive essays" which was based on multiple types of essay titles. All the participants did this task as a graded activity.
- It was randomly collected data according to the academic rules and regulations.
- The instructor allowed the use of artificial intelligence such as paraphrasing tools, chatgpt, or any other tool. All electronic devices were allowed. The focus was the data collection about DMs rather than the discourse validity.
- The participants did this task with their intellectual ability as well as the use of artificial intelligence and submitted it according to the rules of the target language.
- All the participants mentioned their actual names and IDs in the file.

- The data was collected in soft form such as the use of Gmail and Google Classroom. Every participant submitted this task in the form of an MS Word file via the G mail ID and Whatsap.
- Each student did this task within the assigned timing and submission date.

3.4 Sample Size

For the sample, the students were selected from the BS English and BS Math's department of GIFT University. There was not any emphasis on demographic details such as age, gender, ethnicity, etc. The data was collected with a private institution and the focus point was to collect the data with the nature of the study. The recruitment process was the announcement in the communication channel or via the help of Google Classroom before one day of collection. The instructor informed the participants to consider the graded activity. Based on this specific announcement, all the students participate actively for the sake of grades. To achieve the research objectives, the sample size was 100 participants from each department. Importantly, the participant's consents were also highlighted to achieve accurate results. It means the voluntary nature of the students was also included. It was a cross-sectional study because it was collected with participants at a single point. It shows the different errors of the participants at the same time. It also shows the short period or cross-sectional study. All the participants did this activity within the maximum time at the same duration as every participant to achieve the objectives of the research.

3.5 Data Analysis Procedure

This research follows the following steps:

Firstly, the selection of the topic was the primary step. The researcher thought about the errors of the non-native English speakers in writing. The writing skill was considered preferable because it was convenient for the researcher to analyze the errors in written discourse. Also, all the educational departments graded the student's academic records from written work. Also, the "use of discourse markers" was selected for this study. Then, the secondary concern was the data collection. The researcher thought that the data would be collected from both different departments to make a comparative study. For it, BS English and BS Math's undergraduates of GIFT University were selected.

Secondly, the researcher took permission from those department teachers. They easily allowed and announced to the participants that this writing would be their graded activity. Before writing, the prior concern was the instructions. According to the academic rules and regulations, the English instructor collected the data from those students. All the students participate in it. This same method was implemented on the Math's learners. According to the student's consent and the teacher's assigned task, all the participants did it.

After data collection, the researcher analyzed the whole data according to Fraser's Taxonomy with the help of AntConc software. The researcher mentioned every category of discourse marker in the collected data. The varieties of DMs are highlighted for results. Importantly, it was based on every student's writing. The reason is that all types of DM errors were present. It shows the misuse and overuse of the DMs.

After that, the AntConc software analyzed the frequencies of every category of the DMs. The frequency of the DMs from the non-natives of English and Math's learners was analyzed separately. Then, the researcher analyzed the high and low frequencies of DMs categories. Then, the researcher interprets the specific analyzed markers within 2 to 5

maximum examples from the collected data. This comparative analysis indicates the difference in the writing of the two different departments.

To conclude, the researcher analyzed the facilities and hindrances of DMs in both departments writing and frequency rate for rationale and implications. This analyzed data was the clear evidence for the results. After achieving the results, the researcher explained the errors of DMs to the participants for further improvement in their writing. So, this study implicates the vitality and appropriate use of DMs for non-native English and Math's students.

Data Analysis

According to Fraser's Taxonomy, the classification of *contrastive* discourse markers in the data collection of GIFT University students are as follows:

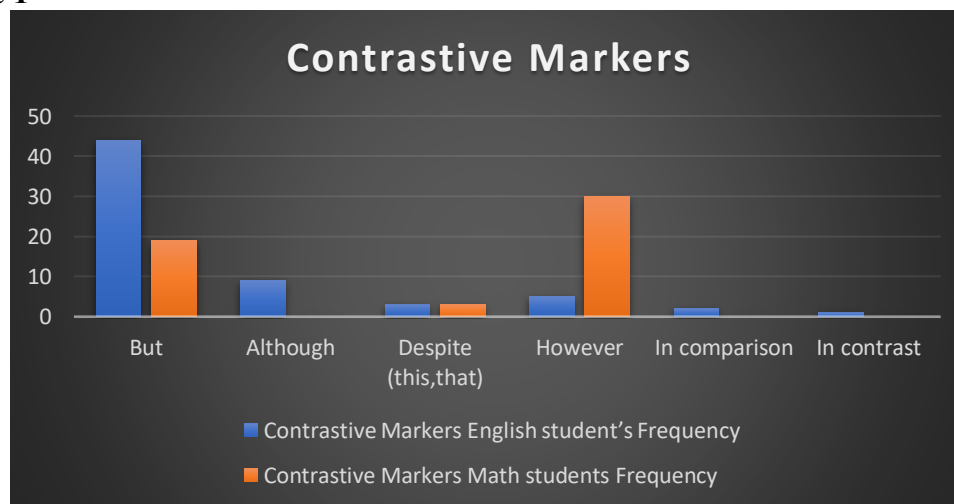
4.1 Contrastive Markers

Contrastive discourse markers are considered the main linguistic elements or signals in communication. It shows the differences, contradictions, flow, or clarity in any discourse. In the persuasive essays of English students, the analyzed contrastive discourse markers are *but, although, despite, however, in comparison, and in contrast*.

Table 2

Markers	Contrastive Markers	
	English students Frequency	Math students Frequency
But	44	19
Although	9	0
Despite (this/that)	3	3
However	5	30
In comparison	2	0
In contrast	1	0

Figure 1





As in the above table, the 6 contrastive discourse markers were present in the writings of the English student's writings and 3 in the Math students. The first DM was "but" in it.

Example 1

Technology plays a vital role in our lives, especially in institutions, but it has many drawbacks that create problems for our youngsters.

This example shows a contradiction and also connects the two parts of the sentence. It is also showing the two opposite points in one sentence. So, this powerful tool is used to explain the different dimensions of verbal (speaking or writing) communication.

Example 2

Equalizing the support of men and women is not only needed by law but also by financial necessity.

It is showing a focus between two viewpoints. Here, this marker is an emphasis on the ideas or the speaker's point of view. This versatile tool is used to enhance the discourse clarity between the contrastive views, concessions, and shift or balanced ideas in a sentence.

The second contrastive discourse marker used in the English learner writings is "although".

Example 3

This essay will examine both viewpoints and make the case that, although money can affect some elements of pleasure that are temporary, it cannot ensure long-term happiness. This example shows a condition or contrasting ideas. It is showing the persuasive argument and clears the understanding of multiple views or circumstances in the communication.

Example 4

Although spending money and buying the things you find attractive can provide you fleeting moments of pleasure, but it ultimately leads to loneliness and a never settling craving for more.

It tells us the significance of this marker at the beginning of a sentence. For capturing the reader's attention and smooth transition, this marker is used. It also shows the coherence and contrastive ideas in communication for effective understanding.

The third discourse marker analyzed in the writing is "despite".

Example 5

But despite of all the benefits, face-to-face learning is still even more effective and comparatively easy to use.

Here, this marker illustrates the ability to pursue the aims as well as the strength and continuous success.

Example 6

Many specialists warn about the negative consequences violent video games may have on children, despite the claims of some parents that video games have no impact on their children.

It highlights the unfavorable circumstances and challenging nature of the circumstances. It is an ability to introduce contrastive views and adverse conditions in communication.

The fourth contrastive discourse marker is "however" in the written essays.

Example 7

However, the question appears: which of the two carries an incredible impact?



It shows the preceding statement and highlights the exceptions. By signaling the transitions, this marker is indicating a connection or coherence in written discourse.

Example 8

However, they play a critical role in specifying students' strengths, weaknesses, and understanding styles

Here, it creates the complexity that has been previously mentioned. By adding the contrasting conditions in communication, this marker is used. Although it is used at the end of a paragraph, it serves as a strong emphasis indicating a shift and enhancing the rhetorical effect in written work.

The fifth contrastive discourse marker is the “in comparison”.

Example 9

The treatment of women's support in comparison to men's help is one area that needs addressed

It shows the differences between the two points. By using this marker, it adds clarity in different perspectives It also structures the sentence and adds the emphasis between them.

Example 10

In comparison with relying on books only, there are so many new ways to explain a topic In it, a comparison between the two ideas is explained. It also draws attention with the help of a comparison between two contrastive perspectives.

“In contrast” is the final contrastive discourse marker that is mentioned in the English student's writings.

Example 11

Official channels, in contrast, make an effort to offer thorough news coverage by covering a variety of stories and viewpoints

It is used to shift in focus and emphasize the difference. It aims to guide the reader with the help of different arguments and facilitate clear information.

In comparison, contrastive discourse markers are also mentioned in the writings of the “Math” students.

In their writings, the “Math” students also used “but” or contrastive discourse marker.

Example 12

Moreover, promoting inclusive beauty standards is not just a matter of individual well-being but also one of social justice and equity.

In Math learner writing, this discourse marker connects the two sentences as well as focuses on the desired situation in the sentence. It also shows the limitation of the previous sentence and enhances the clarity with the help of additional context.

Example 13

In conclusion, making education free for everyone is not only a matter of equity and social justice but also a smart investment in the future of individuals, communities, and society as a whole.

It shows the vitality of “but” discourse markers. This signal is used to structure the sentence and introduce a shift or future planning. This intention also shows the change for the future plan or decision.

“Despite” is the second contrastive discourse marker that is highlighted in the essays writing of the Math students.

Example 14

However, despite these challenges, it is possible to rediscover the art of listening and reap its numerous benefits

In this sentence, the “despite” discourse marker. It shows the contradiction with the previous sentence. Basically, it is used to aware the shift in focus. It also shows the relationship between the two different complex ideas as in this sentence.

Example 15

This phenomenon explains why lottery winners often report no significant increase in long-term happiness despite their newfound wealth

It shows the same signal. In this sentence, it also shows the unexpected relationship between the two different ideas. Here, it is used in the contradicting perspectives and also for further exploration and consideration.

“However” is the third contrastive discourse marker that is mentioned in the writings of Math students.

Example 16

However, it's important to note that not all vegan or vegetarian diets are automatically healthy

This signal is used to effectively navigate the difficult perspectives and introduce the previous perspectives that have been stated in the essay. It also engages the reader's attention with different points of view.

Example 17

However, Reddit is not without its challenges

This marker indicates the previous assumptions and explains the difficult circumstances and challenges with the help of this balanced perspective in this sentence.

4.2Elaborative Discourse Markers

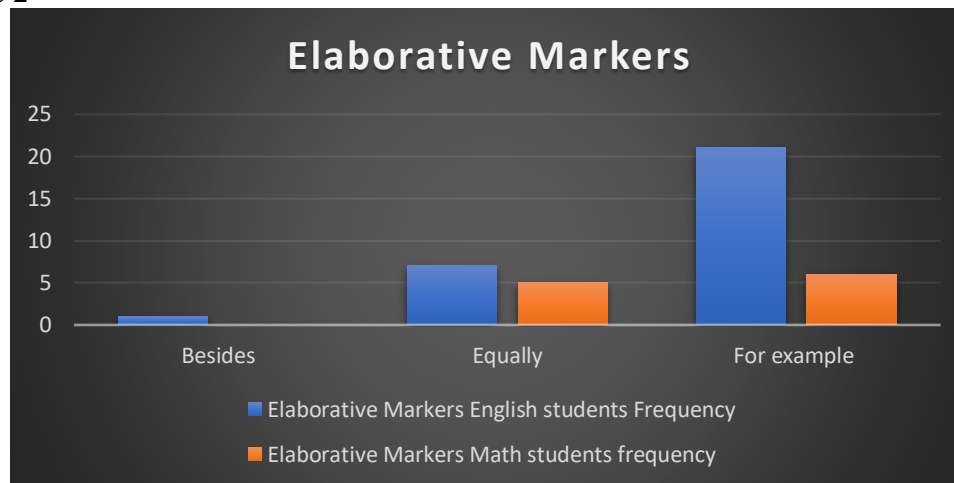
Elaborative discourse markers are defined as such words and phrases that are used to indicate the additional information, interpretation, and understanding of the whole statement. It offers further details and evidence for elaboration.

In the writings of English students of GIFT University, the elaborative discourse markers are as follows:

Table 3

Markers	Elaborative Markers	
	English students Frequency	Math students frequency
Besides	1	0
Equally	7	5
For example	21	6

Figure 2



The first elaborative discourse marker is “besides” in their essays.

Example 18

Besides of the tuition fees, it requires many other expenses like buying books and help books and the activities or projects that students make require a good amount which is not affordable for all but in online learning students can take material from any online learning source and do their work on different websites which are free of cost and submit their work either by Gmail or in google classrooms.

In this marker indicates the multiple reasons that are related to the topic of the essay. At the start of this marker strengthen the clarity in the argument and enrich the discourse with the help of relevant additional points for comprehension of all arguments.

Secondly, another marker is “equally” in the elaborative markers.

Example 19

Maintaining human rights depends on the fundamental idea that women's support should be treated equally to men's support.

Here, the vitality of this marker is to balance the structure as well as the importance of the previous sentence. It is mentioned in the sentence to indicate the subsequent and the preceding idea's significance. Both points play an equal role in this sentence.

Example 20

We ought to respect each other equally since we are all human beings with inherent gifts.

In this sentence, this discourse marker explains the importance of the respect element. This marker indicates the reinforcement of the rule of equality. It also shows the essential nature and equitable treatment of others.

“For example” is the third elaborative discourse marker that is present in their essay writings.

Example 21

For example, during the COVID-19 pandemic period, it was very beneficial.

This marker clears the perspective with justification and illustration. This signal is used to explain the perspective with concrete examples and enhance the persuasiveness of the multiple arguments.

Example 22

For example, in the 5th semester, we mostly used to watch short videos to understand some philosophical concepts which were very difficult to understand from the books. It supports the preceding statement and the deep understanding. This signal elaborates the point with the help of concrete examples.

In comparison with the “Math” students, 2 elaborative markers are also highlighted with frequencies.

The first elaborative discourse marker that is used in this sentence is “equally”.

Example 23

Therefore, it is imperative that women's support is treated equally to men's support in all spheres of life.

In it, it signifies the equality between the two points. It shows that both points of view are equally important. Basically, it also compares the two different elements and maintains the parallel or balance between them.

Example 24

In conclusion, treating women's support equally to men's is not only a matter of basic human rights and social justice.

It shows the similar vitality between their rights and creates cohesion.

“For Example” is another discourse marker that is present in the essays of the Math students.

Example 25

For example, women may require additional support in areas such as reproductive health, childcare, and protection from gender-based violence, but this does not diminish the importance of addressing men's needs in these areas as well.

This presented marker signals the logical and evidence to the arguments and create a coherence in the structure of discourse.

Example 26

For example, while some people may find comfort in seeking emotional support from friends and family, others may prefer to cope independently or seek professional help from therapists or counselors.

This marker indicates the transition, emphasis, and coherence. It also enhances the clarity of the text in communication and elaborates the reader's specific instances for comprehension.

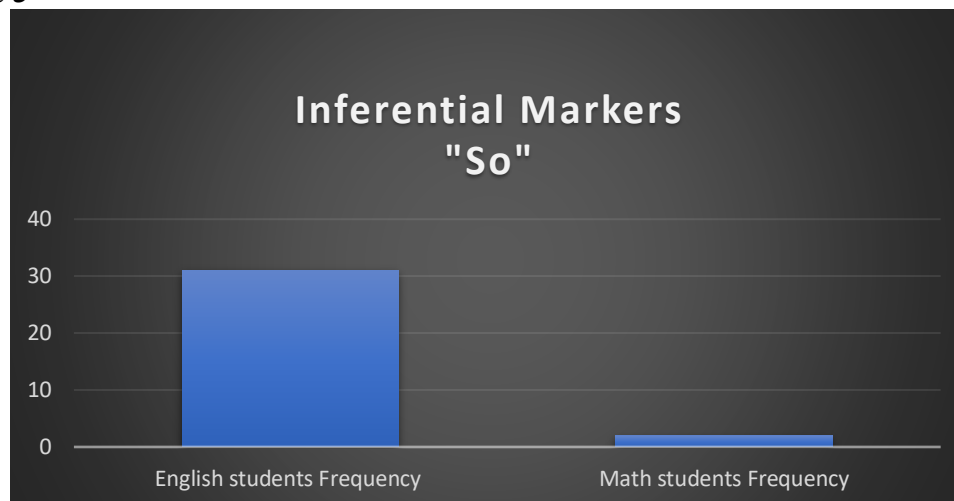
4.3 Inferential Markers

Discourse markers that are used to convey a message, such as a conclusion or an inference from a sentence, are known as inferential discourse markers. The use of these markers is to indicate the links and relationships between thoughts and utterances in written or spoken communication. The researcher found the inferential discourse markers in the writing of English students, are “so”.

Table 4

Markers	Inferential markers	
	English students Frequency	Math students Frequency
So	31	2

Figure 3



The above table shows that only one inferential discourse marker is found.

Example 27

So, permitting the students to use their systems during lectures will not make them critically strong..

This example indicates the collaboration and connect equal utterances. This marker is used in this sentence to start an explanation that is implied or concluded.

Example 28

So, the educational departments should pay attention to this issue and limit the use of technology..

This example shows a link between the previously discussed issue and the suggested plan of action, highlighting the fact that the issue represents an explanation or basis for the advice.

In the writings of “Math” students, the analysis of these markers are:

In comparison, Math students used “so” only two times.

Example 29

So, how can we promote inclusive beauty standards in practice?

This example establishes a connection between the question concerning its practical application and the issue of creating inclusive beauty standards.

Example 30

While some TV shows may inadvertently perpetuate stereotypes due to lack of awareness or sensitivity, others may do so intentionally for comedic effect or to cater to certain audience preferences.

Rather, "so" is used in this sentence to contrast two different circumstances or situations.

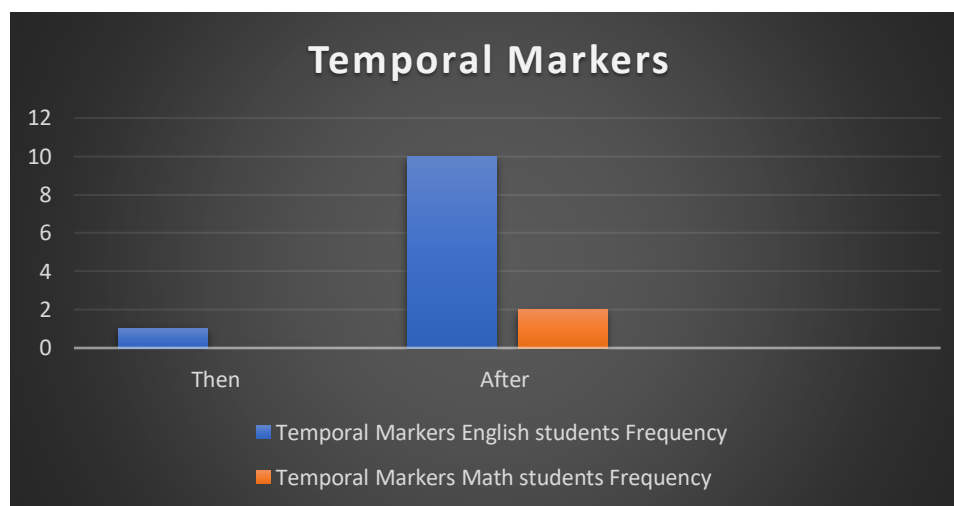
4.4 Temporal markers

A term that refers to time is called a temporal word. In writing, temporal terms have been used as transitions. Temporal discourse markers are words or phrases that can help indicate the time, sequence, or temporal connections between various concepts, sentences, or events

within a discourse or discussion. By providing temporal context, these markers help in the sequence and coherence of language.

The researcher found the temporal discourse markers in the writing of English students, are then, after.

Temporal Markers		
Markers	English students Frequency	Math students Frequency
Then	1	0
After	10	2



The above table shows that only one temporal discourse marker is found.

Example 31

Materialistic people then spend more to deal with the stress which results from excessive spending of money, thus leaving the person in a constant loop of momentary and shallow happiness before the stress takes over his mind again.

The temporal markers are used by speakers and writers to demonstrate the temporal connection between consecutive events.

In Math students, there is no use of the temporal discourse marker “then”.

The second temporal discourse marker in the writing of English students is “after”.

Example 32

For instance, children who had poor conscientiousness and high neuroticism tended to become more aggressive after playing violent video games.

This marker shows the development or arrangement of the events. It facilitates the idea that one event happens later in time than another.

Example 33

Thus, after the closure of educational institutions during the COVID 19 pandemic, the provision of online education has had a great impact on the health of learners and saved many lives.

It gives the reader a temporal context so they may comprehend the order of events and the cause-and-effect link between them.

In comparison, the Math students also used the temporal marker like “after”.

Example 34

The constant desire for more stuff can lead to feelings of dissatisfaction, stress, and anxiety, as individuals become trapped in a cycle of consumption, always chasing after the next shiny object in an attempt to fill a perceived void in their lives.

The word "after" in this sentence helps to describe an endless cycle in which people are constantly chasing after the next desirable object in order to satisfy their cravings. The idea of continuous trying or finding is conveyed, while a specific temporal order of events is not always specified.

Example 35

As a result, individuals may find themselves trapped in a cycle of consumption and competition, always chasing after the next acquisition in search of fulfillment, only to find themselves perpetually dissatisfied and unfulfilled.

There is an implied cause-and-effect relationship in this sentence. The word "after" emphasizes the chase that follows getting caught in the cycle of conflict and consuming, which helps to establish the temporal order of these events.

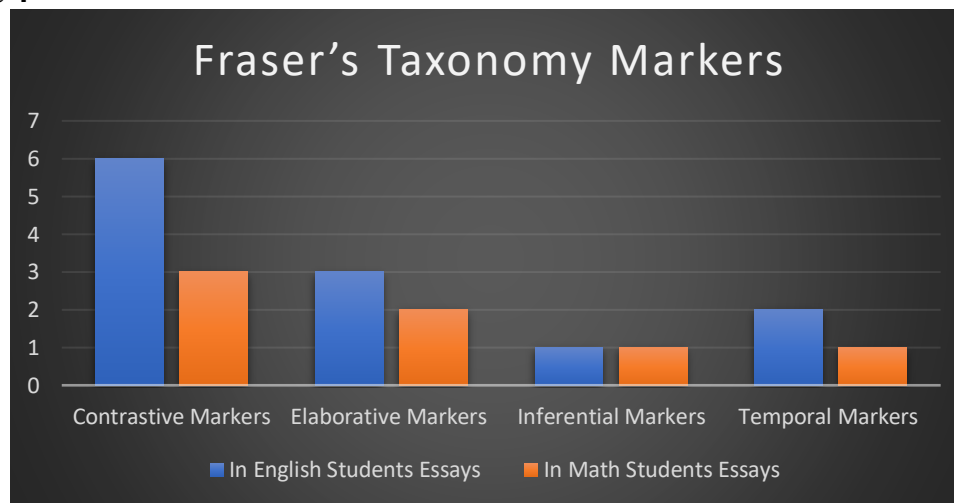
4.5 Results and Discussions

4.5.1 Results

Table 5

Fraser's Taxonomy Markers	In English Students Essays	In Math Students Essays
Contrastive Markers	6	3
Elaborative Markers	3	2
Inferential Markers	1	1
Temporal Markers	2	1

Figure 4





In the writings of English students, the use of discourse markers was 31 percent. On the other hand, the Math students used almost 18 percent. The English learners used the “contrastive markers” more in essays; while the other students used the same markers in high quantity as compared to the other categories. Then, English students used the “elaborative markers” more as compared to the Math students. The third category was “inferential markers”, both learners used it at an equal frequency rate. The last marker was “temporal markers”, so, the English students used more as compared to the Math students. This result shows that the English learners used the classification of Fraser’s Taxonomy of Discourse Markers with high frequency as compared to the Math students. It shows that the English students knew cohesive writing. The Math student's writing shows an emphasis on precision and concise structure. They were English learners and they used more discourse markers as compared to Math students. It shows that both department students used all categories of discourse markers.

4.5.2 Comparison of DM Use Between the English and Math Students

According to the Fraser’s Taxonomy, the first is a “contrastive” marker. English students used the but (44), although (9), despite (3), however (5), in comparison (2) and in contrast (1). On the other side, Math students used but (19), despite (3), and however (30) DMs. It shows that both disciplines used “three” same discourse markers. It shows the influence of the popular contrastive discourse markers in education. It may be widely used in written communication.

Secondly, the discourse marker is “elaborative”. English department learner's written persuasive essays show the besides (1), equally (7), and for example (21) discourse markers. Math student's essays show the equally (5) and for example (6) DMs. In this type, both department learners used the “two” same DMs. The use of these two markers in the writings indicates the vitality that these two same markers are used to structure the discourse, transition between the points, and enhance the clarity for the reader.

The third marker is an “inferential” discourse marker. In the persuasive essays of English learners, there was only one “so” DM. This same marker was also found in the writings of the Math students. In English, so (31), while in Math this marker was found only two times. It shows a stylistic convention and consistency in communication. That’s why, English department learners used more time to maintain a logical connection between the different perspectives as compared to the Math students.

The “Temporal” marker is the fourth category in Fraser’s Model of DM. Both disciplines used this marker in their writings. In English learners, then (1) and after (10) times. In comparison, only “after” was used in two times. It shows that the temporal markers were mentioned in rare frequency as compared to the other markers. However, English learners still used more time as compared to the Math students.

The frequency of discourse markers is higher that used mostly by the English students as compared to the Math students for example English students mostly used DMs like but, although, despite, however, in comparison and in contrast that shows the background knowledge of English students that they know about DMs and they know how to used it in sentences in communication. While, the Math students only used some DMs in their sentences like they used but, despite, however, the frequency of these DMs are less as



compared to English students. So, it is shown that they are not much understanding about DMs.

The goal of this study is to improve understanding of language use in communication between English students and Math students, with a particular emphasis on discourse. It aims to increase knowledge of techniques that improve communication effectiveness and it is shown by the researchers that English students understand the various strategies of DMs while Math students are not much awareness about the strategies of DMs. This study intends to offer insights that can be used to enhance communication quality in a variety of contexts by investigating these elements.

4.5.3 Discussion

According to the Fraser model students are not much aware about all the categories of DMs. They used the common discourse markers in the essay writing. In Chapter 4 the interpretation and function of all the collected markers with their frequencies are mentioned. It illustrates in the written communication of the both departments learners of GIFT University This is evident in how they use DMs in their writings.

To some extent, they have awareness about DMs, because mostly students used DMs in their persuasive essays to make relationships in their ideas and to make coherent structure. It means that the students used DMs in written communication to clarify the understanding of reader.

According to the findings it is clear that both students used few same DMs in their writings. It shows that due to the education system they have awareness only of these DMs. This concept is clear to the researcher after reading their essays about how many ideas are written by students and they justify it. Some of the students have no idea about effective reading and writing. But the majority of English students have awareness as compared to Math students. Because, due to the academic system English students get more opportunities while Math students do not have such language facilities of language learning. On the other hand, Math students only used the general markers and emphasis on logical reasoning.

Conclusion

To conclude, the first question has been addressed the difference in the frequencies of discourse markers in the writings of BS English and Math students. The analysis shows that English department students used 30 percent DMs; while, Math learners used 17 percent DMs. In Fraser's Taxonomy, the total DMs were 39 in numbers. English learners used total 12 DMs and other used only 7. The first department used the but, although, despite, however, in comparison, in contrast, besides, equally, for example, then, after and so markers.

On the other hand, Math students used but, despite, however, equally, for example, so and after markers. Both learners used six similar DMs in persuasive essays. The high frequency reason of the English students is the departmental influence and the nature of subject, so much so English department focuses on communicative, interpretative, and analytical skills which require such a DMs. In contrast, Math students' emphasis on logical reasoning, precise expression as well as problem solving which may not demand DMs for clarity and coherence.

The second question has been addressed that DMs may create facility and hinderances in

both discourses. For evidence, in example 5, 14 and 33, both learners mentioned two DMs at one time. It indicates that some of the learners find difficulty that when they are supposed to use DMs. In other examples, it shows the students are facilitated in the correct use of DMs. It might be happened, due to the use of online tools instead of self-writing.

There are notable differences in the frequency of Discourse Markers (DMs) among non-native English-speaking pupils. This variation shows how subject matter and departmental focus effect the use of DM in written compositions. DMs can be a barrier for non-native English speakers while also being as a facilitator of coherence and clarity. While some students might find it difficult to utilize DMs appropriately as shown by instances of simultaneous usage or inconsistent usage. In the writings of other students, DMs help them organize their thoughts and efficiently convey meaning in their writing.

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