DISCOURSE MARKERS IN WRITING

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ÖZET

Yazma becerilerinin geliştirilmesi dil öğreniminin önemli ve karmaşık bir bölümünü oluşturmaktadır. Yazma literatürü, söylem belirleyicilerin yazma kalitesinin vazgeçilmez bir bileşeni olduğuna işaret etmektedir. Bu çalışma yabancı dil olarak İngilizce öğrenen Türk öğrencilerin söylem belirleyici kullanımlarını tanımlamayı amaçlamıştır. Çalışma Konya Selçuk Üniversitesi, Eğitim Fakültesi, İngilizce Öğretmenliği Anabilim Dalının 76 ikinci sınıf öğrencisi üzerinde yürütülmüştür. Veriler öğrencilerin kağıtlarından elde edilmiştir ve öğrencilerin yazdıkları beş paragraflı kompozisyonları kurulan cümle sayıları, kullanılan söylem belirleyici sayıları ve tercih edilen söylem belirleyici çeşitleri bakımından değerlendirilmiştir. Kağıtların analizi, yazma kalitesini geliştirmek için gelecekte yürütülecek araştırmalar için rehberlik edebilecek sonuçlar önermektedir.

Anahtar Kelimeler: Söylem belirleyiciler, Yazma becerileri, Yazma kalitesi, Ürün bakışı, Süreç bakışı.

ABSTRACT

Developing writing skills is an important and complex part of language learning. Literature on writing specifies in general terms that discourse markers constitute an indispensable component of writing quality. This study aimed at identifying the discourse marker usage of Turkish EFL learners. The study was conducted on 76 second grade students of Konya Selçuk University, Education Faculty, English Language Teaching Department. Data were collected from the students' papers, and the papers were evaluated in terms of number of sentences used, the number of discourse markers used, and the variety of the discourse markers preferred in a write five-paragraph essay. Analysis of the papers suggests guiding results for further research on developing writing quality.

Keywords: Discourse Marker, Writing skills, Writing quality, Product view, Process view.

INTRODUCTION

Developing writing skills has always been the most complex and difficult aspect of language teaching**.** Not only writing in the mother tongue but also writing in a second/foreign language has been important. There have been many approaches and methods in the field of writing and teaching writing. Depending on these different perspectives of writing, scholars adopted and applied many different techniques. In Raimes's (1983, p. 5) terms "There is no one answer to the question of how to teach writing in ESL classes. There are as many answers as there are teachers and teaching styles, or learners and learning styles". However, all depended mainly on the two basic concepts of writing - product and process view (McDonough & Shaw, 1998, p. 179). That is, approaches to writing have varied in terms of taking it mainly as a product, or process. Such a distinction resulted from the differences between the traditional

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approach that dealt with writing as a finished product, and the contemporary view that is interested in the process of writing rather than the product.

To be precise, in the past, researchers and teachers were only interested in the language learning processes of foreign language writing classes but not in their writing processes (Leki, 1992, p. 76). According to this view, mastering English Syntax and Morphology were emphasized and all problems of writing were to be solved by dealing with Linguistic competence, not through forming actual compositions. The traditional approach to writing and writing instruction was especially common until 1960s (Williams, 1989, p. 7). Teaching students punctuation, spelling, and correct usage was emphasized and the teachers commented on the finished products and graded them. Then, the teachers designed a class around spelling drills, vocabulary exercises and assigned models of writing. After applying such exercises, the class was given topics, and imitated the 'reading assignments' at home. As the teacher is interested in the finished form of the written product, he primarily points out the mistakes of spelling, punctuation, and usage errors. In the following stage, the teacher gives some advice on how a written product should be, and does some more exercises as much as needed. Not surprisingly, as is also stated by Cohen (1990, p. 105), success in getting high grades rather than achievement becomes important for the students in such a learning environment.

Therefore, some scholars, especially those who are adverse to the product view became interested in the process of writing in time to further understand the processes the writers go through. Researchers that question the effectiveness of the product view of writing argued that the finished product is in fact the result of a complex series of operations (Williams, 1989, p. 8). As is also pointed out by White (1989, p. 35), focusing on only grammar, and correctness is not found enough for dealing with writing. Instead, writing is seen basically as a process of four main stages: planning, drafting, revising, and editing (Seow, 2002). Thus, a writer is expected to go through stages such as pre-writing, writing, revision, and editing. Certainly, each stage has its own rules, activities, and behaviors to be displayed (Brown, 2001):

- In the pre-writing (planning) stage writers form ideas and organization in mind via various techniques such as reading, skimming and/or scanning a passage, brainstorming, listing, clustering, discussing on a topic, teacher initiated questions or probes, showing a strip of pictures, listening to a recorded speech, conducting some outside research etc.
- In the writing (drafting) stage writers refine the thesis, group the ideas, and pattern the paragraphs which were put in an order. Getting started through a free writing technique, or monitoring of one's own writing are some of the techniques to be applied when writing a text.
- In the revision stage expressions and organization of the text is revised. Peer-reviewing for content, using the teacher's feedback, reading aloud among peers (especially in small groups and pairs) for sharing feedback on the draft, and proofreading are some of the useful techniques for

revising the papers before reaching the finished product. After the revision, errors of surface grammar like spelling, punctuation and usage are corrected and the final form of the paper is produced. The last two stages provide the writers with some kind of continuous correction and editing (re-writing) until the writer feels that he has reached the final form of the text.

In such a view, the teachers are advised to focus on the process but not the finished product. That is, various operations and strategies applied during the completion of a writing task became important. Process view of writing suggested writing as a nonlinear process and benefited highly from the strategies of good writers (Williams, 1989, p. 9; Cohen, 1990, p. 105). For instance, good writers are found to take the purpose of the text into consideration, think about who will read it, and try to make clear their intentions, and the function of the text. In addition, they pay attention to word choice, paragraph development, punctuation, and how individual sentences sound. However, weak writers tend to assume the teacher, who already knows what the piece of writing is about, as the only reader of their essays. Therefore, their writing is likely to lack the identification of topic, and may be incoherent and confusing.

The process view asks teachers to intervene in the writing process. Specifically, the teachers are expected to help the writers during the time they are writing, in contrast to the teachers commented on the finished essays in product-viewed classes. The teachers are advised to do more than just grading the papers, and they are even asked to prevent the possible errors in the process. They are expected to guide the students in various ways, at least by increasing their awareness of content, audience, mechanics and so forth.

Although the word "writing" is quite an ambiguous term in that it may refer to different concepts and aspects, such ambiguity may result in situations between process of writing and written product, or composing aspects of writing and the secretarial aspects (good handwriting, spelling etc.) of writing. Whatever it may refer to, it is agreed that all aspects of writing and the written message should be taken into consideration, during the process of handling writing, equally and neither of the aspects predominates the other, especially for the lower levels of language teaching. Anyway we will rather be focusing on the composing aspects of writing as this study deals with advanced level learners.

Bowen & Marks (1994, p. 252) define writing as the most demanding of the language skills. That is, it requires more individual effort than other skills do. A writer is expected to produce a completely accurate, reduced range of structures because writing is more rule-bound. Then, come the value of style, avoiding ambiguity and limiting redundancy by organizing and writing carefully. Just at this point it is also worth reminding Raimes's (1983, p. 6) identification of the aspects of writing that contribute to the clear, fluent, and effective communication of ideas in writing as follows:

- Syntax : Sentence structure, sentence boundaries;

- Content: Relevance, clarity, originality, logic, etc.;
- Grammar: Rules for verbs, agreement, articles, pronouns, etc.;
- Mechanism: Handwriting, spelling, punctuation, etc.;
- Organization: Paragraphs, topic and support, cohesion and unity;
- Word choice: Vocabulary, idiom, tone;
- Purpose: The reason for writing;
- Audience: The reader/s;
- The writer's process: Getting ideas, getting started, writing drafts, revising etc.

Raimes's identification given above suggests a guiding analysis of the factors that play a role in the production of a written text. As our concern is not limited to a sentence but paragraphs and larger units of discourse in the composing process, dealing with cohesion and coherence parallel to this understanding is essential. The only thing a writer wants is to write good paragraphs. On the same topic, Corbett (1987, p. 82) gives three road signs for a well-written paragraph (unity, coherence, adequate development), neither of which can be separated from the others.

To be precise, paragraph unity mainly deals with the development of the topic, and every sentence in the paragraph should somehow contribute to the development of the idea. As another important characteristic of a good paragraph is coherence, knowing about cohesion and cohesive devices that constitute another important factor in making a text coherent is essential. As Halliday and Hasan (1976) put forward, the concept of cohesion is a semantic one, and it refers to relations of meanings that exist within the text, and that define it as a text.

Specifically, paragraph writing mainly consists of bringing a number of sentences together, and a writer puts structured units together to form a text where coherence plays a significant role. Meaning of coherence comes from the Latin word 'cohaerere' (co = together, haerére = to stick) (Corbett, 1987). As the word suggests, it helps the parts of a discourse stick together. A coherent composition gives the reader the opportunity to follow the writer's words from sentence to sentence and from paragraph to paragraph easily. The text has smooth flow that one sentence leads easily into the next sentence, and the sentences are well connected. In this respect, cohesive devices are the items to provide such a connection within the text.

Not surprisingly, at the sentence level, we can make use of syntactic relations to derive the meaning of a unit from the meanings of its parts. But above the sentence level, there are some other factors to be benefited from. Particularly in written discourse, punctuation, layout, and the discourse markers help to group sentences into paragraphs, and paragraphs into sections forming a hierarchical structure to the text. Swan (1995) gives a clearer definition of discourse markers and a list of some common ones, whereas many other linguists, writers and researchers may slightly deal with these items under

various names (signposts, connectives, sentence connectors, key words, transitions etc.):

> *"Discourse means 'pieces of language longer than a sentence.' Some words and expressions are used to show how discourse is constructed. They can show the connection between what a speaker is saying and what has already been said or what is being said; they can indicate what speakers think about what they are saying or what others have said.."* (Swan, 1995, p. 151)

Therefore, discourse markers are words or phrases -although they are grammatical units themselves -that function to signal how the current utterance relates to prior discourse, also contributing to the meaning of the message. They are best realized by being used at the beginning of clauses. In view of that, a preliminary list of discourse markers can be specified, in terms of their functions, as follows:

1- Focusing And Linking: With reference to, Speaking/Talking of/about, Regarding, As regards, With regard to, With respect to, In regard to, As to, As for

2- Contrasts:

a) Direct Contrast: However, Nevertheless, Mind you, Yet/Still/In spite of, Conversely, In contrast/In contrast to

b) Concession and Counter Argument: It is true, Of course, If, May, But, However, Even so, Nevertheless, Nonetheless, All the same, Still

c) Contradicting: On the contrary

d) Balancing Contrasting Points: While, On the other hand, Whereas

e) Dismissal of Previous Discourse: Anyway, At least, At any rate

3- Similarity: Similarly, In the same way, Likewise, By the same token

4- Change of Subject: By the way, Incidentally, Right, Now, O.K

5- Structuring: First(ly), First of all, Second(ly), Third(ly), Lastly, Finally, To begin with, To start with, In the first/second/third place, For one thing, For another thing

6- Adding: Moreover, Furthermore, In addition, As well as that, On top of that, Another thing, What is more, Besides, In any case, Also

7- Generalizing: On the whole, In general, In all/most/many/some cases, Broadly speaking, By and large, To a great extent, Apart from, Except for....

8- Exemplification: For instance, For example, In particular, Such as, e.g.

9- Logical Consequence: Thus, Hence, Accordingly, Therefore, As a result, Consequently, So, Then, That's why

10- Making Things Clear/Softening and Correcting: I mean, Actually, That is to say, In other words, I think, I feel, I reckon, I guess, In my view/opinion, Apparently, So to speak, More or less, Sort of, Kind of, Well, Really, At least, I am afraid, I suppose

11- Gaining Time: Let me see, Let's see, Well, You know, I don't know, I mean, Kind of, Sort of

12- Showing One's Attitude to What One Is Saying: Honestly, Frankly, No doubt

13- Persuading: After all, Look, No doubt

14- Referring to the Other Person's Expectations: Actually, In fact, As a matter of fact, To tell the truth, Well

15- Summing Up: In conclusion, To sum up, Briefly, In brief, In short, In summary

As indicated by Mc Donough & Shaw (1998, p. 181) writing can be dealt with in four levels where handwriting, spelling and punctuation constitute the first level, sentences, grammar, and word choice the second, paragraphs the third, and the overall organization the last. In other words, from the perspective of teaching writing, the students are assumed to learn firstly to write down words -a combination of letters-, and then to form sentences by using appropriate words with correct punctuation. And this is basically a matter of structure analysis not above the sentence level.

On the other hand, writing paragraphs or larger units of discourse requires aspects more than the patterns within the sentence level do. Therefore, this study mainly concerns writing above the sentence level, because efficient use of the discourse markers has proved to have great contributions to stick the sentences together, to have a cohesive, coherent and a unified whole. Besides, seeing and making the connections between ideas clear to the readers are related to clear thinking (Cavender & Weiss, 1987). In most cases, this is the successful way of affecting the reader in many respects (giving delight, a better understanding etc.) when reaching our purposes of writing the text.

On the same topic it is also worth reminding that Aparoff (cited in Rivers & Temperley, 1978, p. 320) calls the process basic to writing as 'purposeful selection and organization of experience'. Not surprisingly, a writer gives form to his thoughts on a paper in writing. He can do it in many different ways. Whatever the way is, he has the content that constitutes the discourse. Just as a river has a direction to go, discourse too flows in a composition. Thus, often a significant criterion for the readers to accept a writer as successful is the fluency that makes the discourse flow smoothly.

To sum up, as writers write their paragraphs or in a broader sense their essays, they are expected to make the point clear to the readers. At first, the writer has to narrow the topic, and then begin to explain it as detailed as possible. Nothing should remain vague. To do this, there are various ways to apply such as giving examples, concrete descriptions etc. The final aim is to form a well organized, unified, cohesive, coherent composition. That is why, discourse markers are found to play a vital role in writing whatever function they perform.

METHODOLOGY

This exploratory research was conducted at Selçuk University, Konya/TURKEY. 76 second grade students from the Department of English Language Teaching constituted the participants of the study. The students'

essays were evaluated in terms of discourse marker usage. Previously, the students had had writing courses for two terms. This study had been conducted during the 3rd term of their writing courses.

For the first half of the term, the students had writing courses with a product view. The courses were designed mostly depending on a text book; the students were taught the rules for composing, including the usage of discourse markers with some reading assignments. Then, they wrote their five-paragraph essays. The students prepared their papers considering the reading texts they had read previously in class. And then, they handed in their papers to be marked by the teacher. Consequently, they were handed the papers back to exchange views and discuss on if necessary. Correct writing was primarily emphasized as the product view does.

For the second half of the term, process-oriented writing courses were designed for the same students. During this period, the emphasis was on process. Classes became 'writing workshops' for the students to develop their thoughts. They shared their work with others, and the teacher intervened, just like a coach, during all stages of composition development -prewriting, writing and rewriting.

In an attempt to observe a comparison and contrast between the 5-paragraph essays written after product-viewed and the process-viewed writing courses, in terms of discourse marker usage, 152 essays (76 essays written after the product-viewed courses and 76 written after the process-viewed courses) have been analyzed and evaluated. Therefore, the data collected from the papers were analyzed and documented mainly in terms of the number of sentences written, the amount of the discourse markers used, and the variety of these expressions preferred.

FINDINGS
Amount of Sentences Written in Essays

Results pertaining to the number of sentences written after the product-viewed and the process viewed writing courses are presented in table 1:

Table 1. Amount of Sentences Written in Essays

	Number of Sentences	
After Product Viewed Courses	Minimum	9
	Maximum	50
	Average	25.77
	Total	1959
After Process Viewed Courses	Minimum	9
	Maximum	45
	Average	27.30
	Total	2075

As shown in table 1, the 76 essays written after the product-viewed courses contained totally 1959 sentences. The essay with the lowest number of

sentences consisted of 9 sentences, while the one written in the maximum number of sentences had 50. Consequently, the average number of sentences written to construct an essay has been 25.77.

On the other hand, although there is no change in the minimum number of sentences used in an essay, the maximum number of sentences written after the process viewed courses decreased to 45. However, a 5.92 % increase in the total number of sentences in the 76 essays from 1959 to 2075 can be observed. Accordingly, increase in the total number of sentences written brings an increase at the same degree in the average number from 25.77 to 27.30. what is more significant about the results on the amount of sentences written is that the findings suggest a more homogenous and balanced distribution in the number of sentences written after process viewed courses. Appendix A presents a more detailed table of data about the number of sentences written, frequencies, and percentages.

Amount of Discourse Markers Written in Essays

Table 2 presents data on the number of discourse markers preferred by the students, after the product viewed courses and the process viewed courses, to compose their essays.

Table 2. Amount of Discourse Markers Written in Essays

		Number of Discourse Markers
After Product Viewed Courses	Minimum	2
	Maximum	20
	Average	10.56
	Total	803
After Process Viewed Courses	Minimum	6
	Maximum	25
	Average	13.86
	Total	1054

Table 2 shows that students used totally 803 discourse markers in the 76 papers written after the product viewed courses. They used the discourse markers at varying degrees that the one who preferred the minimum number of them had 2 while the paper which contained the maximum number 20. That is, the essays contained 10.56 discourse markers on average.

However, evaluation of the essays written after the process viewed courses suggests an increase in the number of discourse markers used. To be precise, parallel to the increase in the number of sentences written to compose an essay, the total number of discourse markers increased from 803 to 1054 in the essays written after the process-oriented courses. Likewise, the minimum number of the discourse markers used to indicate the relationships between the sentences rose up to 6 while the maximum number of usage rose up to 25. Accordingly, the number on average use rose up to 13.86, which signals an approximate increase of 31.25 % in the usage of discourse markers in the essays written after

the process viewed courses. A more comprehensive table of the amount of discourse markers used with their frequencies and percentages is presented in Appendix B.

Variety of Discourse Markers Used

During this study, we also attempted to analyze the variety of the discourse markers in the students' essays -both after the product oriented courses and the process oriented courses:

Table 3. Variety of Discourse Markers Used

Variety of Discourse markers used			
	Minimum	Maximum	Total
After Product-viewed Courses	2	12	97
After Process-viewed Courses	4	15	151

As shown in table 3, we have observed that the students preferred 97 different discourse markers in their 76 essays written after the product viewed courses. The paper with the minimum variety contained just 2 different discourse markers while the one with the maximum variety had 12 different discourse markers.

As with the essays composed after the process viewed writing courses, an increase in the variety of the discourse markers used can be observed. To be precise, the students totally used 151 different discourse markers in their essays. The essay with the minimum number of variety had 4 different expressions while the one with the maximum variety contained 15 different discourse markers. The data obtained from the essays suggest a 55.67 % increase from 97 to 151 in the usage of different discourse markers in total as well as the development seen in the minimum and maximum number of different expressions preferred by the students for their essays. Appendix C presents a table of data about the variety of discourse markers used, their frequencies, and percentages.

CONCLUSIONS AND SUGGESTIONS

Writing, as a productive skill, has been an area of interest to many researchers, especially for its increasing importance parallel to the technological developments all over the world. No matter why we deal with writing, from the most individual purposes to the most social ones, the significance of writing can not be denied. Just as it is in every kind of production in life, everyone can easily recognize that writing, too, displays some certain difficulties and problems. Especially when writing in a foreign language, the matter signals a more complex series of trouble spots.

However, it is rarely the case with writing that it is just the sounds put into letters; instead, as Rivers & Temperley (1978) puts it, logic and development of an idea become indispensable requirements to be aware of as well. That is, the way the writer's thought falls naturally into paragraphs and his making use of logical connectives and other elements to provide with the internal relationship

within the discourse will be important. Therefore, having a discourse on a paper calls for means for showing the relationships within the discourse and connecting the parts of the discourse. In other words, a well developed written discourse, and discourse markers appear to be indispensable requirements for each other.

Therefore, it seems logical to search for ways to improve writing fluency through developing the usage of discourse markers, as part of the methodology to be used for helping students to break the barriers around them. When seeking for ways to help the students break the barriers around them which keep them in a suffering limitation in terms of expressing thoughts and feelings, looking for the answer behind the two famous views of teaching writing (the traditional product-view, and a relatively new process-view) seems to be a logical direction to go.

As the name suggests, the product-view of writing concentrates on the finished product and completely emphasizes correctness whereas the process-view focuses on bringing students' potential of thinking and writing into action.

One of the conclusions to be drawn from the results of this study seems to be that these results suggest that a process view of writing could be preferable over the product view in terms of sentence construction, which is central to developing the discourse. Specifically, there has been approximately a 6 % increase in the total number of sentences written after the process viewed courses, when compared to the essays written after the product viewed courses.

Another significant finding of this study is that the results display a 31.25 % progress in the total number of discourse markers used after the process oriented courses. To be precise, the increase in the amount of discourse markers used (31.25 %) is more than five times higher than the increase in the number of sentences produced (6 %). Such a difference in the rate of increase between sentence construction and discourse marker usage makes it possible to claim that process-viewed 'writing workshops' are likely to help students in showing relationships within their written discourse, in addition to supporting them in having a larger discourse.

Similarly, the results suggested a 55.67 % increase in the variety of discourse markers, in the essays written after the process viewed courses. Therefore, the 55.67 % increase in the variety of discourse markers preferred by the students suggests that moving from a product-view of writing to a process-view of writing also has a positive effect on enriching students' choice of discourse markers. To be precise, students are found to be using more and different discourse markers in their essays after process viewed writing courses.

Certainly, it is not likely to claim that just designing a process viewed writing course means to be the only way to achieve excellent papers; instead, more research needs to be conducted on the effects of process view on developing writing. Deeper research regarding the effects of certain techniques peculiar to the process view of writing seems to be a supportive start for looking for ways to find out the ideal methodology for developing writing skills. Besides, adopting rather an eclectic view may also be purposeful for challenging

students' potential, or a teacher at the same time may need to apply some certain activities to master some grammatical patterns required because a weakness of the process-view is that it is quite flexible against erroneous choices.

To sum up, no matter what technique we prefer and no matter how we apply it, research on writing suggests that saving our students from memorizing and repeating particular patterns or slogans needs to be one of the major concerns in developing writing. In order to achieve improvement in writing quality, students need to learn how to produce new ideas and then learn how to express them effectively. Not surprisingly, effective usage of discourse markers is an indispensable part of attaining cohesive, coherent and unified pieces of written texts.

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APPENDIX A
Amount of Sentences Written in the Essays

Essays written after product-viewed courses				Essays written after process -viewed courses			
Number of sentences	Frequency	Percent	Cumulative percent	Number of sentences	Frequency	Percent	Cumulative percent
50	1	1.315	1.315	45	2	2.631	2.631
45	1	1.315	2.631	44	1	1.315	3.947
42	1	1.315	3.947	42	3	3.947	7.894
38	2	2.631	6.578	41	1	1.315	9.210
37	2	2.631	9.210	38	3	3.947	13.157
36	2	2.631	11.842	36	1	1.315	14.473
35	1	1.315	13.157	35	2	2.631	17.105
34	3	3.947	17.105	33	2	2.631	19.736
33	5	6.578	23.682	32	4	5.263	25.00
31	4	5.263	28.947	31	2	2.631	27.631
30	4	5.263	34.210	30	3	3.947	31.578
29	6	7.894	42.105	29	4	5.263	36.842
28	1	1.315	43.421	28	3	3.947	40.789
27	1	1.315	44.736	27	3	3.947	44.736
26	3	3.947	48.684	26	12	15.789	60.526
25	2	2.631	51.315	25	5	6.578	67.105
24	1	1.315	52.631	24	1	1.315	68.421
23	5	6.578	59.210	23	5	6.578	75.00
22	5	6.578	65.789	22	2	2.631	77.631
21	2	2.631	68.421	21	3	3.947	81.578
20	8	10.526	78.947	20	2	2.631	84.210
19	2	2.631	81.578	19	5	6.578	90.789
18	3	3.947	85.526	18	3	3.947	94.736
17	2	2.631	88.157	17	1	1.315	96.052
16	2	2.631	90.789	16	1	1.315	97.368
15	3	3.947	94.736	13	1	1.315	98.684
12	2	2.631	97.368	9	1	1.315	100%
10	1	1.315	98.684	Total:2075	Total:76	Total:100%	
9	1	1.315	100%				
Total:1959	Total:76	Total:100%					

APPENDIX B
Amount of Discourse markers Used in the Essays

Essays written after product-viewed courses				Essays written after process -viewed courses			
Number of Discourse markers	Frequency	Percent	Cumulative percent	Number of Discourse markers	Frequency	Percent	Cumulative percent
20	1	1.315	1.315	25	1	1.315	1.315
19	2	2.631	3.947	24	2	2.631	3.947
18	1	1.315	5.263	23	3	3.947	7.894
17	1	1.315	6.578	22	1	1.315	9.210
16	1	1.315	7.894	21	5	6.578	15.789
15	5	6.578	14.473	20	2	2.631	18.421
14	3	3.947	18.421	19	3	3.947	22.368
13	8	10.526	28.947	18	2	2.631	25.00
12	5	6.578	35.526	17	2	2.631	27.631
11	11	14.473	49.999	16	7	9.210	36.842
10	6	7.894	57.894	15	4	5.263	42.105
9	7	9.210	67.105	14	4	5.263	47.368
8	10	13.157	80.263	13	4	5.263	52.631
7	7	9.210	89.473	12	5	6.578	59.210
6	4	5.263	94.736	11	4	5.263	64.473
5	2	2.631	97.368	10	11	14.473	78.947
4	1	1.315	98.684	9	3	3.947	82.894
2	1	1.315	100%	8	8	10.526	93.421
Total:803	Total:76	Total:100%		7	3	3.947	97.368
				6	2	2.631	100%
				Total:1054	Total:76	Total:100%	

APPENDIX C
Variety of Discourse Markers Used in the Essays

Essays written after product-viewed courses				Essays written after process -viewed courses			
Variety of Discourse markers	Frequency	Percent	Cumulative percent	Variety of Discourse markers	Frequency	Percent	Cumulative percent
12	3	3.947	3.947	15	2	2.631	2.631
11	8	10.526	14.473	14	3	3.947	6.578
10	5	6.578	21.052	13	2	2.631	9.210
9	8	10.526	31.578	12	3	3.947	13.157
8	10	13.157	44.736	11	10	13.157	26.315
7	17	22.368	67.105	10	13	17.105	43.421
6	12	15.789	82.894	9	4	5.263	48.684
5	7	9.210	92.105	8	14	18.421	67.105
4	3	3.947	96.052	7	13	17.105	84.210
3	2	2.631	98.684	6	9	11.842	96.052
2	1	1.315	100%	5	1	1.315	97.368
	Total:76	Total:100%		4	2	2.631	100%
					Total:76	Total:100%	