Topical Structure Analysis in Egyptian University Students' Argumentative Essays
Noha Omaya Shabana(*)

Abstract
This study examines the topical structure analysis of 25 argumentative essays of first-year university students in Arab Academy for Science and Technology and Maritime Transport (AASTMT). It specifically examines the internal coherence of the students’ essays by examining the internal topical structure and its three basic elements which are parallel, sequential, and extended parallel progressions employed by the sample students. The repetition of keywords and phrases is investigated using Lautamatti’s (1987) framework for the topical structure analysis (TSA). The findings of the study reveal that parallel progressions were the mostly employed with a percentage of 37.26%, followed by sequential progressions with a percentage of 35.62%, and extended parallel progressions with a percentage of 27.12% respectively. These findings suggest that students find difficulty in achieving coherence because of their poor lexical resources as L2 learners. It is recommended that instructors use the TSA as a strategy in teaching both intermediate and advanced academic courses. Consequently, the students’ familiarity with the TSA would contribute to enhancing coherence in their essays.

Keywords: Topical structure analysis, coherence, Argumentative essays.

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تحليل البنية الموضوعي الداخلي للمقالات الجدلية
لدى طلبة الجامعات المصرية
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الملخص

تهدف هذه الدراسة إلى تحليل التماسك الداخلي لتمسك البنية النصي في عينة من 25 مقالاً جدلي لطلاب السنة الأولى في الأكاديمية العربية للعلوم والتكنولوجيا والنقل البحري. تفحص هذه الدراسة على وجه التحديد التماسك الداخلي لمقالات الطلاب عن طريق فحص الهيكل الموضوعي الداخلي للبنية النصي وعناصره الأساسية الثلاث التي يستخدمهم الطلاب وهى التعاشق المتوازي، التفاعلات المتتابعة، والتفاعلات المتتالية. تم فحص تكرار الكلمات والعبارات باستخدام أداة لوتامباتي (1987) لتحليل الهيكل الموضوعي الداخلي للبنية النصي (TSA). تكشف النتائج التي توصلت إليها الدراسة إلى أن الأغلبية من الطلاب يستخدمون التفاعلات المتوازي في البنية النصي الداخلي (37.2%). يشبه في الاستخدام التفاعلات المتتالية بنسبة (35.62%), في حين أن نسبة استخدام من قبل الطلاب كانت للفعالية المتتالية بنسبة (27.12%). وضح من هذه النتائج أن تحقيق التماسك الداخلي للبنية النصي يتطلب صعوبة لدى الطلاب عند تعلم اللغة الثانية بسبب ضعف الموارد المعجمية. وتقترح هذه الدراسة باستخدام كاستراتيجية في تدريس مختلف المقررات الدراسية بمستوى النص المتوسطة (TSA) والمتقدمة مما يساهم في تعزيز التماسك الداخلي للبنية النصي في مقالات الطلاب.
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Introduction

Achieving coherence in written texts is a major difficulty that faces students. It is considered difficult for both native and non-native English speakers (Almaden, 2006). They both have the same target which is to help readers understand the logical connections between different parts of their texts through creating coherence (Grape & Kaplan, 1996; Almaden, 2006). Nevertheless, “the challenge of producing coherent texts is even more intense for these second language learners who come from a different cultural background” (Almaden, 2006, p. 129). This is why L2 learners experience the pressure of transferring their own culture writing conventions into the second language writing discourse (Zainuddin and Moore, 2003). Furthermore, finding a relation between the writer and the reader in addition to establishing a connection between clauses, sentences, and paragraphs are the keys to successful written texts (Liangprayoon et al., 2013; Almaden, 2006).

The Research Problem

A common problem that is widely noticed by both teachers and researchers is the frequent use of transitional signals in some students’ writings without achieving coherence in their texts (Cheng & Steffensen, 1996; Almaden, 2006). This is because students usually “focus more on the lexical and sentence levels rather than on the discourse level” (Almaden, 2006, p. 128). In order to achieve coherence in a written discourse, writers should not only link sentences to each other, but should also have logic and sense in their argument development (Wingate, 2011; Almaden, 2006).

All of the above mentioned problems necessitate adopting certain strategies in order to achieve coherence in a written text. Furthermore, it is necessary to teach ESL and EFL students the concept of textual coherence in writing in order to fully comprehend it and be able to produce well-written texts (Liangprayoon et al., 2013). Among these strategies is Lautamatti’s (1987) topical structure analysis, which is considered one of the most effective methods in teaching students how to detect coherence problems in their writings (Connor, 1990; Connor & Farmer, 1990; Barabas & Jumao-as, 2009; Liangprayoon et al., 2013).
Theoretical Background

Lautamatti’s Framework

Lautamatti (1978) used TSA to determine the thematic development in paragraphs in a written discourse. According to Lautamatti, readers expect a certain meaningful structure of a written text. They expect a related, coherent piece of discourse. Furthermore, the written text consists of sentences that are composed of topics and subtopics ordered in a particular sequence of ideas. This relationship between sentences and discourse topics and subtopics is called the topical development of discourse (Lautamatti, 1978). Moreover, TSA was developed by Lautamatti in order to describe coherence in written texts “focusing on semantic relationships that exist between sentence topics and the overall discourse topic” (Connor and Schneider, 1989, p.413). The process of the topical progression is defined by Lautamatti (1978) as follows:

Sentences in discourse can be thought of as contributing to the development of the discourse topic by means of sequences that first develop one subtopic, adding new information about it in the predicate of each sentence, and then proceed to develop another. (P.72)

Topical Structural Analysis (TSA) is an analytical tool that measures the coherence of texts by tracking the progression of themes and rhemes and their development in each sentence throughout a written discourse. Connor (1990) describes TSA as a means to analyze the organizational patterns and coherence of a text. According to Almaden (2006) students achieve coherence when they focus more on ‘thought progression’ or on the relationship between ideas. Without this relation between concepts and ideas in a text, any written discourse would be rather ‘plain’ and hard to understand or process by readers (Almaden, 2006). Thus by establishing a relationship between lexical and semantic items of a written text in addition to its concepts and ideas, a coherent piece of writing is achieved. TSA “has enabled ESL researchers and teachers to describe student writing by going beyond the sentence to the discourse level” (Connor and Schneider, 1989, P.423). It has been argued as well that TSA is a suitable framework to explain differences between high and low-rated essays (Connor, 1990).
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There are three basic elements of TSA which are parallel progression, sequential progression, and extended parallel progression. In parallel progression, the sentence topics are semantically identical. In sequential progression, the sentence topics are always different, as the comment of the previous sentence becomes the topic of the next sentence and so on. In extended parallel progression, a parallel progression may be temporarily interrupted by a sequential progression (Lautamatti, 1987).

Several researchers adopted and added to Lautamatti’s TSA in their attempts to analyze the thematic and topical style of writings of individuals (Almaden, 2006). Connor and Schneider (1988) investigated whether TSA would affect a reader’s judgments of the quality of writing. In their study, they examined 15 high rated compare and contrast essays, and another 15 low rated essays. Their results showed no significant differences between high and low rated essays regarding the proportion of parallel and extended parallel progressions. However, a significant difference was found between these two groups regarding the proportion of the Sequential progression were high rated essays used it more than low rated essays. One interpretation of their results was the length of the essay in the sense that the longer the essay was, the more opportunities there were for the writer to use sequential progressions. A follow up study was done by Connor and Schneider (1989) to check if these differences between high and low rated essays were independent from essay length. The results showed again that high rated essays used more sequential topics and less parallel topics than low rated essays. Connor and Schneider (1989) suggested that lacking criteria for identifying sentence topics was the reason behind differences across studies between what counts as parallel, sequential or extended parallel progression.

Connor and Schneider’s (1989) results were different from a study by Witte (1983) regarding the use of sequential progression in low rated essays. They explained that difference by a reinterpretation of what sequential progression is. Witte (1983) related the more use of sequential progression to low rated essays which indicates less coherence in a written text. The more new sentence topics are
introduced, the less developed topics are in a written text, which complicates the discourse and makes it hard to follow (Connor and Schneider, 1989). On the contrary Connor and Schneider’s (1989) results suggest that sequential progression may help in elaborating on previous topics as long as they are related to that topic, despite the difference in form, and thus can contribute to the coherence of a written text. They also agree that sequential progression would characterize low rated essays if they were indirectly related or totally unrelated to the topics of previous sentences which would result in failure in achieving coherence.

Furthermore, in a comparative study of academic paragraphs in English and Spanish, Simpson (2000) used TSA in analyzing 40 paragraphs written by experts in the field of humanities in both languages. The results of her study revealed that the Spanish rhetoric was different from the English rhetoric in being elaborate in style. Spanish writers used long sentences and many clauses, unlike the English writers who tended to have more repetition of keywords and phrases in their writings. Moreover, she added to Lautamatti’s three types of sentence progression, a fourth type of progression which is extended sequential progression. It is when the rheme element of one sentence becomes the theme element of a non-consecutive sentence. According to Simpson’s (2000) analysis, this fourth progression appeared in the Spanish texts, where they used it as a strategy to link ideas together within their paragraphs. Spanish writers are found to prefer describing the topic and providing examples for elaboration, rather than repeating the topic immediately.

Another recent study using Lautamatti’s TSA to investigate its relation to students’ coherence in writing is one by Almaden (2006). It was conducted to determine the types of progressions used by Filipino first-year university students in their attempt to achieve coherence in their writing using the TSA proposed by Lautamatti. According to Almaden’s (2006) results, parallel progression was the type of progression used the most by all students indicating weak thematic development mostly through repetition of key words and phrases in successive sentences. Students were not able to repeat these key words and phrases in non-consecutive sentences or across paragraphs, nor were they able to achieve more sequential
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progressions through taking the theme of one sentence as the theme of the succeeding sentence. This finding agrees with Simpson’s (2000) where both English and Spanish writers used more parallel progressions in their writings. Despite writing essays of one rhetorical pattern, students employed different styles in their writings, especially in connecting ideas between sentences and within paragraphs. Also, the frequency of the most predominant progressions used in their writings varied, which means that “second language learners of one culture do not limit themselves to only one topical structure but employ different combinations of patterns of progression made available for them in their desire to impart meaning” (Almaden, 2006, p.150).

The study by Barabas & Jumao-as (2009) aimed at exploring the common and least type of progression used by Cebuano multilingual students in their writings. Twenty students of a Bachelor of Science in Accountancy were required to write a definition essay each. Their results showed that Cebuano ESL students employed mostly the sequential progressions in the selected paragraphs for the analysis. Moreover, Barabas & Jumao-as’s (2009) results attest that coherence is crucial in order for a written text to be successful, and that Lautamatti’s (1989) TSA framework is a valuable determiner of the students’ coherence and thematic development in their writings.

Contrary to examining the thematic development in students’ academic writings, a study by Carreon (2006) aimed at examining the topical development of students’ personal journals. Carreon used TSA in investigating cohesion in 20 journals of two ESL composition classes. She involved Lautamatti’s (1978), and Simpson’s (2000) different types of progressions referred to earlier in this review. Her TSA results indicate no use of parallel progression, limited use of extended parallel progression, and more use of sequential progression. Carreon claimed that, the intermediate to advanced language level of her students helped them refrain from the constant repetition of the key topics in their journals. Moreover, the paucity of the extended parallel progression occurrence was attributed to the personal and informal nature of the journals, which
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did not oblige the students to write in a well-structured pattern that offers a closure to the readers by employing extended parallel progressions. Finally, Carreon argued that employing more sequential progressions indicated full awareness of the content, where the students freely elaborated and expressed their personal opinions on the subject matter.

In addition to investigating and analyzing the students’ coherence in writing using TSA, other recent studies have investigated the effectiveness of implementing TSA into writing instruction (Liangprayoon et al. 2013). In their study, they investigated TSA instruction and its effect on enhancing the writing quality of university students. Moreover, they sought to trace the thematic development of skilled and unskilled writers, through exploring the proportions of the different types of progressions in the students’ essays. Results indicate that coherence was higher in the experimental group that was taught TSA with the process approach in instruction, unlike the control group which was taught through the process approach only. Moreover, sequential progression was the mostly employed progression by both skilled and non-skilled writers in both groups, whereas parallel progression was slightly higher in successful writers than less successful writers. Furthermore, extended parallel progression was employed most by high proficiency writers than by low proficiency writers. The study concluded that students’ coherence improved in their writings after learning TSA, which enhanced their writing quality.

It can be concluded from this review of literature in regards to using TSA whether as a method of analysis or as a method of instruction, that TSA is a valid and reliable method in determining thematic development and coherence of the students’ written compositions. Consequently, it is of prominent importance that students and teachers acquire some knowledge about this method in order to be able to produce coherent developed arguments.

Research Question

The present study addresses one question which is:

What are the most prevailing types of progressions that characterize the argumentative essays in a sample of Egyptian University students of the AASTMT?
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Significance of the Study

As highlighted by the reviewed literature, there is a pressing need for unraveling the thematic development that characterizes the EUS argumentative essays. Since the focus of the present study is to detect coherence in the students' essays that appear to be problematic for EUS as non-native English speakers, the results of the present study are significant to many stakeholders including faculty members, students, English courses designers and English language instructors in departments of English that offer English courses for specific purposes (ESP). Significance is related to a variety of educational objectives including teaching and learning purposes. In relation to teaching, highlighting the topical development that characterizes the EUS argumentative essays will help teachers in revisiting the coherence problems of students' essay writing and will give them instructional insights to developing English writing Curricula in schools and universities. Compiled data of the current study will shed light on the most and least prevailing types of progressions in the EUS argumentative essays, and consequently will benefit teachers in improving instruction on the areas of weaknesses. In relation to learning, orienting the students to the (TSA) will enhance the internal coherence of their essays, which will consequently improve their writing quality.

In summary, the contribution of the present study is in detecting coherence through the topical structure analysis of the EUS argumentative essays. The current study is of considerable practical value. Compiled data from the study is expected to generate useful pedagogical recommendations and practical implications for improving coherence in the argumentative writing of undergraduate EUS.

Subjects

Using the convenient sampling technique, 25 first semester, upper-intermediate undergraduate students in the faculty of Engineering for the academic year 2012-2013 with age range from 16 to 18 were selected. Their level of language proficiency is determined by a placement test given by the English Department in AASTMT. There are no native speakers of English in the current
All students speak English as their second language. First year students in particular were chosen as they only receive the argumentative essay instruction during this year before they move to more specified ESP courses.

Argumentative essay writing is taught in ESP II, and the course book used is Oshima and Hogue’s (2006). The students receive a two-90 minute writing classes per week. They are taught different genres of academic essays such as compare and contrast, cause and effect, and argumentative essays. Special attention is given to the argumentative genre in particular with an average of two classes during the whole course. Teachers explain the organization of the argumentative essay. Moreover, they explain the components of an argumentative essay as indicated in Oshima and Hogue (2006). Furthermore, students do not receive pre-readings regarding the topic they write about. They only discuss the topic of argumentation with their teachers prior to writing their essays.

Instruments
The coherence of the sample essays is analyzed according to Lautamatti’s (1987) topical structure analysis for detecting coherence and organization of a written text (TSA). This tool detects coherence through the relationships between sentence topics and overall discourse topics and by investigating the use of the three different types of progressions in the sentences namely parallel, sequential, and extended parallel (Lautamatti, 1987). Table 1 describes the function of each of the three types of progressions. In addition, the table includes some examples for each progression, adopted from Connor and Schneider (1990) for illustration.

Table 1.

<table>
<thead>
<tr>
<th>Type of Progression</th>
<th>Function</th>
<th>Example (Connor &amp; Schneider, 1990, p. 413)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parallel Progression</td>
<td>topics of successive sentences are the same</td>
<td>1) Over 500 million bags are handled on airplane flights each year. 2) Sometimes that luggage is lost, delayed or damaged.</td>
</tr>
</tbody>
</table>
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<table>
<thead>
<tr>
<th>Sequential Progression</th>
<th>topics of successive sentences are always different.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airline employees</td>
<td>sometimes are to blame.</td>
</tr>
<tr>
<td>passengers</td>
<td>In many cases, passengers themselves are to blame.</td>
</tr>
<tr>
<td>Airline employees</td>
<td>It is not surprising that lost luggage is the number</td>
</tr>
<tr>
<td>one complaint in the airline industry.</td>
<td></td>
</tr>
</tbody>
</table>

Lautamatti (1987) explains the three basic elements that are essential in identifying the thematic progression or sequence of sentences. The first one is the initial sentence element ISE, which comes first in a sentence. It may come in whatever type or form; it could be the subject of the sentence or any introductory phrase. The second element is the mood subject, and it functions as the grammatical subject of the sentence. The topical subject is the third element, and it refers to the topic of the sentence or the idea being discussed in a clause. It does not have to be the grammatical subject of the sentence. It could come in any other lexical form, yet still could be referred to as the topical subject since it is directly related to the discourse topic. For the purposes of this study, the researcher only identifies the topical subject in each independent clause.

Data Analysis and Procedures

Sampled essays were collected and read then the number of sentences were counted for each essay for the purpose of sentence identification. In the process of the analysis of the argumentative essays in regards to TSA, only the independent clauses were used in detecting the topical development of the sample essays. Consequently, the researcher had to further code the independent clauses in each sentence for the purpose of identifying the topics of each independent clause, since the students included complex sentences in their essays. As a result, the (a, b, c) coding was added next to the initial number of each sentence in order to identify the independent clauses of each essay.

Finally, an interrater agreement was performed in order to limit subjectivity. Six essays were randomly chosen by the
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researcher for the interrater. The researcher and the interrater have the same background in teaching academic writing, and in particular the argumentative genre. They teach students at the university level, and use Oshima and Hogue’s (2006) book in teaching academic writing.

The sample students’ essays were typed in order to facilitate the topical development analysis, and they were copied with the students spelling and grammatical mistakes. The numbers of independent clauses and sentences per essay were counted in order to establish differences on the face value of the data. A clause is defined as a unit of thought that consists of both a subject and a predicate, and it could be dependent or independent (Simpson, 2000). On the other hand, a sentence defines one unit of thought, and it can consist of either a single clause or series of clauses as per each case.

The first step in the analysis was to identify all the topical subjects of each independent clause in all the essays. The second step was to construct a diagram corresponding to the topical structure of the essays, where the topical subjects were plotted in this diagram to recognize the type of progression, topical depth and topical development. The relations of the sentence structure and the discourse topics were charted using the three types of topical progression. Furthermore, the researcher applied the same diagram format in reporting the topical depth and development of each sentence, as provided in literature (Liangprayoon, et al., 2013; Barabas & Jumao-as, 2009; Connor and Schneider, 1989; Lautamatti’s, 1978). This diagram is constructed by placing the topical subject of each independent clause of parallel progression exactly below each other. Then, sequential topics are indented progressively. Finally, topics of extended parallel progression are placed under the parallel topics to which they refer. This progressive indentation on the charts, represent the topical depth. The following figure illustrates the topical development of a students’ essay in relation to the three progressions, followed by a table illustrating the number of occurrence of each progression in this essay- (see table 2).
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Figure 1. Topical Structure Analysis of Essay Number 1

Figure 1 shows that essay one contained 14 independent clauses, with only two topics. It can be noticed that the writer employed mostly the parallel progression (9), (3) extended parallel, and only (1) sequential progression as shown in table 2. Consequently, these results mean that the initial topic was not developed since the writer resorted to repetition of topics all through the essay.

Table 2.
The Number of Occurrence of Each Progression in Essay 1

<table>
<thead>
<tr>
<th>Item</th>
<th>Number of occurrence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parallel Progression</td>
<td>9</td>
</tr>
<tr>
<td>Sequential Progression</td>
<td>1</td>
</tr>
<tr>
<td>Extended Parallel Progression</td>
<td>3</td>
</tr>
</tbody>
</table>

Inter-rater agreement

The disagreement between the raters was mainly in identifying the topic of each independent clause, as each topic was not necessarily the topical subject of the sentence. Deciding the topic of each independent clause required a certain amount of intuition, and was not thought of as being the same by two different raters, due to
their different perspectives (Dumanig et al., 2009; Simpson, 2000). Subsequently, for each one of the 6 essays, a final agreement was reached in relation to the focus of each independent clause. The two raters discussed the topic progression of each essay and agreed on one set of topics for each essay. The rest of the analysis of the three different types of progressions was based on this set of topics.

**Findings and discussion**

The quantitative numerical data are analyzed by calculating the frequencies and percentages of occurrence of the three types of progression according to Lautamatti’s (1987) TSA. The data collected from the students’ argumentative essays describes the physical and internal structure of the paragraphs. The total number of independent clauses and topics are identified as indicated in the following table.

**Table 3**

*Summary of Topical Development in the Students’ Essays:*

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total No. of Clauses</td>
<td>390</td>
<td>---------</td>
</tr>
<tr>
<td>Total No. of Topics</td>
<td>155</td>
<td>---------</td>
</tr>
<tr>
<td>Parallel Progression</td>
<td>136</td>
<td>37.26%</td>
</tr>
<tr>
<td>Sequential Progression</td>
<td>130</td>
<td>35.62%</td>
</tr>
<tr>
<td>Extended Parallel Progression</td>
<td>99</td>
<td>27.12%</td>
</tr>
<tr>
<td>Total No. of Progressions</td>
<td>365</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

Table 3 indicates that there are 390 independent clauses in the students’ argumentative essays. There are also 155 new topics being introduced in 390 clauses. The three types of progressions identified by Lautamatti’s (1987) (TSA) are all manifested in the students’ argumentative essays. However, Table 3 indicates, in addition, that of the three progressions, parallel progression was prevalent in the students’ argumentative essays (37.26%), where the sentence topics are semantically identical. This finding confirm the results of the study conducted by Almaden (2006), which revealed that parallel progression was the most type of progression used by all students. This topical structure analysis indicates weak thematic development mostly through repetition of keywords and phrases in successive sentences. It is also observed that most essays that employed more
parallel progression introduced the topical subject in the first independent clause in the initial position. This topical subject is repeated in the succeeding clauses. Students used nouns, pronouns, and noun phrases in referring to their topical subject introduced in the initial clause.

It can further be gleaned from table 3 that the EUS employed 35.62% of sequential progressions in their essays, in which topics of successive sentences are always different, as the comment of one sentence becomes the topic of the next, or is used to derive the topic of the next sentence. Among the 25 essays, only 8 employed more sequential progression than parallel progression or extended parallel. This result manifested that EUS are not able to show a logical succession of their ideas. The majority failed in increasing the number of new topics in their essays.

Moreover, it can be derived from table 3 that there is a small difference in the percentage of usage between parallel progression and sequential progression. This shows that some students also employed sequential progressions which helped in achieving coherence in their essays. Furthermore, it can be gleaned from the same table that students used extended parallel progression the least. It is noticed that the majority of the appearance of this type of progression is on the concluding parts. This means that students were able to pull back to their main idea in the initial clause. That is, students introduced a topical subject in the initial clause, then sequentially introduced other ideas, but in the closing sentences, they were able to pull back to the initial clause or their main idea as shown in figure 2 below.

Figure 2. Topical Structure Analysis of Essay Number 22:
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It can be derived from figure 2 that the writer started the essay by using “spanking children” as the main topic in clause (1a), and ended the essay using the same topical subject “it” which refers to spanking children that was already introduced at the beginning of the essay.

On the other hand it is noticed that some essays are incoherent mainly because of either not employing the extended parallel progression, or because of the paucity of extended parallel among the other progressions. This is noticed in the following example of essay number 5, figure 3.

(1) Spanking
   (2) parents
   (3) corporal punishment
   (4) punishing
   (5a) a certain amount of corporal punishment
   (5b) such practice
   (6a) Boys
      (6b) Mothers
      (6c) Toddlers
   (6d) Parents from lower income groups
   (6e) Parents who have more education
      (6f) Religious conservatives
      (6g) Some groups
   (7a) Opinions
      (7b) Public attitudes
   (8a) It (Spanking)
      (8b) a lot of ways

Figure 3. Topical Structure Analysis of Essay Number 5

What is problematic in this essay is that the writer is not able to go back to “spanking” which is the main topic in clause (1). The writer instead introduced another topic in (8b) which is the concluding clause of the essay namely “a lot of ways”. Thus there was no closure of this essay. It only had incoherent succession of topics that were not
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able to go back to its topical subject in the initial clause.

Furthermore, essay number (6) is an example of the least occurrence of extended parallel progression in student’s essays as shown in figure 3.8. What is problematic in this essay is that almost no extended parallel progression is employed except for only two which are (3b-5a) and (1a-4a). This can be attributed to the difficulty of composing in L2, or the students’ lack of lexical resources. What is worth noting is that the writer employed eight sequential progressions as opposed to only 4 parallel progressions. This indicates topical development where the rheme of one clause would be the theme of the following one.

Figure 4. Topical Structure Analysis of Essay Number 6:

It is worth mentioning that sometimes students employ more sequential progressions in their essays, yet still the topic is not well developed. This results in complicating the discourse and makes it hard for the reader to follow. For example the (TSA) in essay (5) referred to in figure 3, the writer employed 9 sequential progressions against only 4 parallel progressions, and 3 extended parallel progressions. The number of new topics introduced in this essay is 12, whereas the number of independent clauses is 17. Despite the number of new topics introduced in this essay, it yielded less coherent.

It can be noticed from figure 3, that the writer is not focused,
and introduced many new, unrelated topics. The writer starts by introducing the initial topic “spanking” in clause (1), followed by another new topic in clause (2) “parents”, followed by parallel progressions in (3-4), (4-5a), and (5a-5b), and then a series of different topics in clauses (6a), (6b), (6c), (6e), (6f), (6g), (7a), (7b), (8a), and (8b), indicating incoherence in the essay. This finding is congruent with Connor and Schneider (1989), where they also agree that the sequential progression could characterize low rated essays in some cases if they are indirectly related or totally unrelated to the topics of previous sentences which would result in failure in achieving coherence. Moreover, it is congruent with the results of Witte’s (1983) study, which characterized the low rated essays by using more sequential progressions. Witte (1983) claims that, the more new sentence topics are introduced, the less developed topics are in a written text. This indicates less coherence in a written text.

Another example is essay (2), where the writer heavily employs the sequential progression and shows no use of the parallel progression. It is worth mentioning that the essay lacks topical depth and is incoherent through introducing new topics in each clause. The result is total diversion from the main topic “spanking children” and an incoherent, incomprehensive piece of writing. The following figure shows the topical development of essay (2).

(1a) Spanking
   (1b) Parents child relationships

(2) Children who are spanked

(3) Spanking children

(4) Male

(5a) Worry

(5b) It (being spanked)

(6) It (when authority figure spank)

Another example is essay (2), where the writer heavily employs the sequential progression and shows no use of the parallel progression. It is worth mentioning that the essay lacks topical depth and is incoherent through introducing new topics in each clause. The result is total diversion from the main topic “spanking children” and an incoherent, incomprehensive piece of writing. The following figure shows the topical development of essay (2).

(1a) Spanking
   (1b) Parents child relationships

(2) Children who are spanked

(3) Spanking children

(4) Male

(5a) Worry

(5b) It (being spanked)

(6) It (when authority figure spank)

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Figure 5. Topical Structure Analysis of Essay Number 2
Figure 6 is an example of the topical development of an essay using mostly parallel progression.
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Figure 6. Topical Structure Analysis of Essay Number 14: Example of Topical Development of an Essay Using Mostly Parallel Progression:

In this essay, the writer started by introducing “what would come to your mind” as the main topic in clause (1). In clause (2), “this topic” served as the main topic which is a sequential progression, taking the comment of the previous clause “spanking children” as its topic. In clause (3), “hitting or spanking children” served as the topical subject which is parallel to the main topic in clause (2). In clause (4), “this” served as the main topic which is still in reference to the main topic in clause (3). The “hitting them” in clause (5), also refers back to the main topics of the preceding clauses (3) and (4). In clause (6a), “hitting or spanking children” served as the main topic which is parallel to the main topics in clauses (2), (3), (4), and (5). In clause (6b), “this” which serves as the main topic, still has parallelism to the main topics in clauses (2) to (6a). Again “this” in clause (7), functions as the topical subject and refers back to the main topics in clauses (2) to (6b). The “beating children” in clause (8), functions as the topical subject and is still in reference to the main topics in clauses (2) to (7). In clause (9), “hitting children” is the topical subject and still refers to the previously mentioned main topics of the preceding clauses from (2) to (8). In clause (10a), the writer used “hitting” as the topical subject which still refers to the preceding clauses. Finally the writer used a new topic “we” in clause (10b) as the topical subject of the last
sentence which serves as a sequential progression. Thus, the convention of this essay mostly follows the parallel progression.

It can also be noticed from figure 6 that the writer did not use any extended parallel progressions. This emphasizes the fact that in the concluding sentences, some EUS were not able to pull back to the initial topic mentioned at the beginning of the essay, and thus provided no proper closure, which yielded an incoherent written text.

It is worth mentioning that, sometimes using more parallel progression is advantageous and indicates more topical depth. Employing more parallel progressions in written texts indicates strong topical focus. This is shown for example in essay number (15), figure 7, where there are 7 parallel progressions against 4 sequential progressions. Despite using only 5 new topics in this essay amidst 16 clauses, yet it is well developed without heavy use of repetitive keywords. The writer started the essay by talking in general about the topic explaining that spanking children is an important issue to discuss, and then moved to the second paragraph explaining the point of view of the proponents of spanking children. Afterwards in the third paragraph the writer explained the counterargument of the opponents of spanking children, then finally showed his/her opinion in the concluding paragraph.

(1a) many Issues
(1b) People
   (2) the methods of disciplining g (spanking)
   (3) this issue
       (4a) Those
   (4b) This
   (5) Physical punishment
   (7) Physical punishment
       (8a) they (those who don’t agree)
(8b) it (Spanking)
       (9) they (those who don’t agree)
(9a) this issue (spanking)
(9b) it (this issue)
(11) spanking & physical abuse
(12) it (Spanking)
(12a) it (Spanking)

**Figure 7.** Topical Structure Analysis of Essay Number 15
Topical Structure Analysis in Egyptian University Students' Argumentative Essays

The pie chart in figure 8 shows the comparison and the percentages of the three types of progressions after analyzing the EUS sample essays. As this figure indicates, a significant majority of the students employed the parallel progression. The second largest proportion goes to the sequential progression with a moderate use of 26%. A small minority of students employed the extended parallel progression with a percentage of 27%.

Figure 8. Percentages of the three types of Progressions

Relating the results to the Research Question

In order to answer the research question concerning the most prevalent type of progressions utilized by the EUS, Lautamatti’s (1987) TSA is used. Results indicate that parallel progression is the type of progression employed most by the students in their argumentative essays by repeating words, nouns, and pronouns. The second type of progression employed most by the students is the sequential progression, where students increased the number of new topics introduced in the essay. It is also indicated that extended parallel progression is the least employed by the students in their essays, where they use it in their concluding sentences.

In describing how the above mentioned types of progression are utilized in the sample students’ argumentative essays, it is observed that the majority of students who employed mostly the parallel progression introduced their topical subject in the initial part of the sentence, making the word both the topical and grammatical
subject of the sentence. The students frequently repeated this word or the reference of this word to the following sentence and shifted to the next sentence by introducing another topical subject. Students who employed mostly sequential progressions in their essays increased the number of new topics introduced in each sentence. Nevertheless, students who are able to employ a good number of extended parallel progressions in their essays, repeated their initial topics by using parallel progression at the beginning of their essays, then increasing the number of new topics by employing sequential progression, and finally going back to their initial topical subject that is mentioned and repeated earlier in the essay by referring to it again in the concluding sentences.

Employing more parallel progression or sequential progression in the students’ sample essays is not a determiner of high quality essays. This is because employing mostly parallel progressions mean that students repeated the topical subject several times down to the concluding sentence. Moreover, employing more sequential progressions mean that students increased the number of new topics introduced in each sentence, which made the essay less coherent. Moreover, it is because EUS are second language learners, it is difficult for them to find the right words that would help them organize their thoughts and ideas in their essays which contributed to the difficulty of achieving coherence. In order for the essays to be coherent and of high quality, students should learn how to logically and clearly introduce their ideas and topical subjects. Ideas in their essays should be clear from the beginning of the essay and down to the concluding sentences. The shift from one topical subject to another should be performed in a smooth pattern from one sentence to the other.

The results of the study are in disagreement with the results of Barabas and Jumao-as (2009), Carreon (2006), and Connor and Schneider (1990), where their EFL students employed mostly the sequential progression unlike the EUS who participated in this study and employed parallel progressions and sequential progressions comparably, with a slightly higher percentage of the parallel progression (PP: 37.26%, SP: 35.62%). Barabas and Jumao-as (2009) for example, attributed their results of the high sequential
Topical Structure Analysis in Egyptian University Students' Argumentative Essays

progression percentage (44.83%) to the expository rhetorical mode and the text types the students wrote. Their EFL students were assigned classification, and compare and contrast types of essays, which postulate that students would add details and give examples of the topic in their essays in order to develop their ideas. Consequently, the sequential progression is mostly employed since it helps in developing topics by adding details elaborating on an idea.

However, Connor and Schneider (1990) attributed their results to the length of essays factor, and its relation to the quality of the essays, where the longer the essay is, the higher quality it achieves. Moreover, they believed that the various interpretations of what stands as a sequential progression have contributed to their results, where some researchers like Witte (1983) related the low rated and less coherent essays to their excess use of sequential progressions. Furthermore, presenting a great number of new discourse topics results in complicating the discourse topic of the essay, and causes less topical development. On the other hand, Connor and Schneider (1990) claim that employing sequential progressions aids in elaborating on previous topics in the form of different, yet related topics that follow logically from previous ones in the essay. In their opinion, coherence in written texts is achieved when sequential topics are related to preceding topics together with the discourse topic of the whole composition.

Furthermore, Carreon (2006) attributed her results of employing more sequential progressions to the journal type of writing where students are familiar and fully aware of their personal content they include in their writings, unlike the unfamiliar topics of academic writing. This enabled them to explore and elaborate on the subject well, which affirmed using different sequential topics.

Moreover, the results of the current study are not in line with that of Liangprayoon et al., (2013), where their students succeeded in maintaining a good balance between the use of parallel progressions and extended parallel progressions (25% and 23% respectively). Consequently, their essays were perceived as of high quality, and more coherent. On the contrary, the EUS had a low percentage of the extended parallel progressions employed in their essays, as opposed
to a high percentage of the parallel progressions (27.12% and 37.26% respectively), which indicates a gap between the use of extended progressions and parallel progressions.

Furthermore, the results of the current study are in disagreement with Carreon’s (2006) results, where her students employed ‘zero’ parallel progressions in their journals. On the contrary, the EUS sample employed excessively the parallel progression in their argumentative essays (136 times). Carreon (2006) explains that her students belong to the intermediate to advanced language learners’ category, which in her opinion was the reason behind not employing a single parallel progression in their journals. Carreon (2006) argues that the students who constantly repeat the same topic of their initial sentence element mostly belong to the beginners’ language learners’ category. This again is in disagreement with the current research, where the EUS sample belongs as well to the upper-intermediate language learners’ category, yet employed the parallel progression and sequential progression with a similar frequency, only slightly higher in the usage of parallel progression (PP: 37.26%, SP: 35.62%).

Nevertheless, Barabas and Jumao-as (2009) results indicate that their EFL students’ use of extended parallel progression is small in percentage (19.31%), which is congruent with the results of the current study, where EUS used extended parallel progression the least (27.12%). The difference in percentages in both studies could be attributed to the sample number, where the present study used 25 essays, as opposed to a sample of 20 paragraphs in Barabas and Jumao-as (2009). Moreover, their results are also in agreement with the current study results in that there was a small difference in percentage of usage between the sequential, and the parallel progressions. This result shows that the EUS sample used an appropriate amount of sequential progressions as well in their essays.

**Implications of the study**

The results of the study are significant to many stakeholders: faculty members, students, and English-Language instructors. Understanding the topical structure that characterize the EUS argumentative essays will enable teachers and academic writing courses designers to pay attention to the strengths and weaknesses of
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the internal coherence of the students’ essays. Moreover, increasing teachers’ awareness of monitoring the thematic development in the students’ essays has positive effects on enhancing the students’ coherence in their writings. Therefore, the practical implications of the results of the present study can be summarized as follows:

1- In regards to analyzing the TSA in the sample of EUS argumentative essays, the total number of topics is 155 whereas the total number of clauses is 390. This indicates less topical development and more repetition of the initial subject or the keywords, and thus makes the EUS argumentative essays less coherent. The repetition of keywords shows lack of lexical resources. Consequently, students should improve their vocabulary and lexical items in order to enable them as L2 learners to be more productive and fluent.

2- Moreover, it is highly recommended for instructors to introduce TSA as one of the strategies in teaching intermediate and advanced academic writing courses. Students should be familiarized with the TSA framework in order to be able to increase coherence in their writings. In this light, teachers should encourage more use of the other types of progressions that are rarely used by students in order to increase the quality and coherence of their written texts. In addition, ESL teachers should strive to enrich the students’ bank of vocabulary instead of focusing on writing short sentences with good grammar. Enriching students’ vocabulary will enable them to produce more words in sentences.

3- Fragments and dependent clauses are noticed to be many in the sample of the EUS essays. Thus, ESL instructors should teach students how to distinguish between types of sentences such as simple, compound and complex, in order to use them effectively in building a comprehensive argument. Furthermore, instructors should give the students enough time to revise their writings in order to avoid any grammatical or lexical mistakes that would eventually affect the coherence negatively and hence the development of the argument.
Noha Omaya Shabana

Suggestions for Future Research

In order to reach more generalizable conclusions on the characteristics of the EUS argumentative essays, linguistic devices such as the syntactic complexity of the sentences, the number of words, and the type of phrases, should be investigated as well. Moreover, further research is needed to cover other rhetorical dimensions, language proficiency levels, and writing tasks. Finally, future studies should consider other genres of academic writing together with the argumentative one, especially in analyzing (TSA), in order to determine the proportion of topical progressions in other rhetorical genres as well.

Furthermore, EUS should employ more sequential progression in their essays than parallel progression in order to achieve coherence. According to the study by Connor and Schneider (1989), highly rated essays were those that showed a high proportion of sequential progression. Consequently, this indicates well developed topics, and further elaboration on previous topics as long as they are related to that topic.
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References