Information Structuring in Learner Texts: a Possible Relationship Between the Topical Structure and the Holistic Evaluation of Learner Essays

Nida Burneikaitė, Jurgita Zabiliūtė

Abstract. The present paper sets out to investigate coherence in written texts of Lithuanian learners of English. Intermediate learner essays were analysed with the purpose of establishing a possible relationship between the holistic evaluation of the essays and the type of information structuring used by the learners. Topical structure analysis (Lautamatti, 1978) was employed to determine the type of information structuring.

Analysis has shown that sequential progression is a predominant type in both high-rated (50%) and low-rated (40%) essays, which may suggest that ***sequential progression*** has little or no direct impact on the holistic evaluation of the essay. Results have also shown that as many as 30% of high-rated essays use extended parallel progression, and as many as 40% of low-rated essays use parallel progression, which may suggest that the use of ***extended parallel progression*** contributes to the overall *higher rating* of the essay, and the over-extensive use of ***parallel progression*** contributes to the overall *lower rating* of the essay. The study implies that the use of the three types of topical structure should be carefully balanced to produce a coherent and thus readable essay.

Introduction

In EFL contexts holistic evaluation of learner texts is common practice, however, it is often questioned in relation to reliability and validity. Holistic evaluation is also seen as too global to indicate particular strengths and weaknesses of learner texts. Halliday and Hasan (1976) noted that although, as a rule, we know whether any piece of language is a text or not, at times the distinction between a text and a collection of unrelated sentences is a matter of degree, and often we come across instances about which we are uncertain, something that is familiar to most teachers from reading their students' compositions.

To help the teachers make sound judgements and enable them to point out the strengths and weaknesses of a student composition, specific information is needed about the linguistic characteristics of texts that give rise to a particular judgement. Research into the quality of learner writing with the aim of establishing linguistic features that contribute to the overall good or poor quality of learner text is necessary.

What are the linguistic characteristics of effective texts and ineffective texts? Flower (1984) has noticed that effective writers do not simply express thought, but transform it in certain complex but describable ways for the needs of a reader; conversely, ineffective writers are merely "expressing themselves" by offering an under-processed version of their own thought. This allows us to assume that students who are poor writers have difficulty communicating their meanings in reader-friendly form; they have problems with the semantic meanings of sentences and their sequencing in the text to develop the overall theme. In other words, they have difficulty achieving coherence.

The object of investigation in this paper is the quality of Lithuanian learner written texts. The paper is an attempt to examine coherence in student essays with the aim of establishing how different patterns of information structuring affect the overall quality as perceived by the reader.

Coherence as a Key Indicator of Text Quality

Coherence seems to be a key indicator of the quality of text as it deals with the global and local meanings of the text and the deep organisational logic of the text.

The model of text construction below (adapted from Grabe and Kaplan, 1996: 81) serves as a handy reference as far as components of text organisation are concerned. Four potentially independent components existing on two levels are identified: two on the sentential level (syntax and semantics) and two on the textual level (cohesion and coherence) with a major division at both levels between the surface structure (syntax/cohesion) and the deep structure (semantics/coherence). This division may be seen generally as constituting a form-meaning distinction. A fifth component – the lexicon – is a diffuse component underlying the other four. Together, these five components comprise the elements of text structure – the fundamental building blocks from which all texts are constructed. Figure 1 illustrates a simplified version of Grabe and Kaplan's model of text construction.

Sentential	**Syntax**	**L E X I C O N**	**Semantics**
Textual	Cohesion		Coherence

Figure 1. A Model of Text Construction Adapted from Grabe and Kaplan (1996: 81)

Cohesion and coherence can be seen (Grabe and Kaplan, 1996) as controversial by nature: the surface structure in

texts (cohesion) does not necessarily provide a perfect match with the deep organisational logic of the text (coherence). This is the case firstly because language is ambiguous and no set of formal linguistic means can provide all the information necessary for the construction of the logic of a text, and also because different writers employ the formal means of text organisation differently, depending on their purpose, their intended reader's awareness of the genre conventions, and their linguistic proficiency.

These factors together suggest that, while it is relatively easy to explore the surface forms of cohesion, the nature of coherence is much more difficult to discern. Subsequently, while it may be relatively easy for teachers to identify the strengths and weaknesses of student texts as far as cohesive links are concerned, it may be extremely difficult for them to identify those features that make the text coherent/incoherent.

This task is made even more difficult by the dynamic nature of coherence. Although the term coherence means "sticking together", which implies a static state, coherence, in fact, is a dynamic feature because it has to do with movement: movement of information and ideas, movement of the reader's changing perceptions and knowledge. In a good essay, each idea in a paragraph relates to the main idea of the paragraph and also to other ideas in the same paragraph; the main idea of that paragraph is, in turn, related to the overall thesis of the essay. This requires that, as the text unfolds, the points made should progress in a logical sequence from the beginning till the end of the essay, with links shown between the points and with the overall thesis. How and whether this is achieved in learner essays should be a matter of concern for both teachers and researchers.

The importance of coherence in teaching writing is currently not given due emphasis. This may be observed in the textbooks and teachers' overwhelming preoccupation with cohesion and relatively little attention to matters of coherence (Witte and Faigley, 1981). However, there is no evidence to suggest that a large number (or a small number) of cohesive links will positively affect the overall quality of the written text. Although both cohesion and coherence contribute to the effectiveness of writing, it can be claimed that cohesion is of secondary importance as it refers to the surface mechanisms that hold the text together, whereas coherence is of primary importance as it refers to the underlying semantic relations that allow a text to be understood.

Research into Coherence of Learner Texts

Research exploring coherence of texts has focused on macrostructures (or text themes), logical relations among clauses and text units, and information structuring in texts (given-new information, topic-comment, theme-rheme, focus-presupposition structures). All these subsets of coherence notions have proved important for research on writing as well as for writing instruction (Grabe and Kaplan, 1996).

A number of investigations have been carried out to examine whether and how coherence is achieved in learner texts. In a study of high school writing Bamberg (1983) found that a text was judged coherent when the writer announced the topic, established a context for information, and followed an organisational plan. He argues that structural connections are more significant than lexical ties and that a global unity of meaning should be achieved before the writer starts producing actual sentences.

Brostoff (1981) identifies three causes of incoherent writing: failure to make logical connections between ideas, failure to form a well-structured hierarchy of relationships among ideas, and failure to make relationships clear to the reader. He suggests that writing programmes should first of all address these causes.

Informational structure research of learner texts has been carried out along several lines. One major line is represented by topical sentence structure, developed by Lautamatti (1978), using topic-comment analysis to examine written discourse. Her theory of topical development in discourse examined the relations between the topic of discourse, the topical subject of a sentence, the syntactic subject, and the initial sentence element. Noting that these three notions do not always overlap, she explored the various possible patterns in written texts. This approach is important in that it shows that certain patterns of topical progression may be more readable than others.

Another line of research in sentence-based functional discourse analysis centres on the topic and given information. Following Lautamatti (1978), Witte (1983a) developed a topical structure approach to study differences in high- and low-quality writing. Looking for topical and sequential chaining patterns in student essays, Witte found that low-rated essays did not provide enough appropriate given information and forced the reader to make too many inferences. Low-rated essays used fewer sequential chaining patterns, making it harder for the reader to perceive main topics in the essay. Such texts were not reader-friendly. Overall, differing patterns of topical structure appeared to provide good predictors of student writing quality.

The Present Study

The present study attempts to investigate the quality of Lithuanian learner texts by examining the relationship between the information structuring in learner essays and the holistic evaluation of those essays. The study aims to determine whether any particular type of information structuring results in the overall higher quality of the text.

The data for this study were 58 randomly selected intermediate learner essays written in English by Lithuanian secondary school leavers as part of their entrance examination to the Department of English Philology, Vilnius University, in 1998 and 1999. The task of the entrance examination writing paper required to write an argumentative essay of no more than 230 words on a given topic. The time allotted for this task was 30 minutes. The following types of essay titles were given to choose from:

(1) Why is it important to know the history of your country/family?/ to have a room of your own?/ to watch news on television?

(2) Why do people have hobbies/parties?/ go to the theatre/cinema?/ listen to classical music?/ read books?

The essays were assessed by lecturers of Vilnius University, whose experience varied in teaching and assessing writing. A multiple assessment scale adapted from Tribble (1996) was used. The total/maximum score was 20 points, consisting of 4 points for *content*, 4 points for *structure and logical organisation*, 5 points for *vocabulary*, 5 points for the *use of language*, 2 points for *mechanics*.

As there was no record of how structure and logical organisation was rated by the assessors, or whether any other descriptors (such as content) were used to rate coherence, this study considered holistic evaluation to be a reliable source of information regarding the overall effectiveness of a written piece. It was assumed that global coherence was an implicit criterion used by the assessors in judging the quality of the essay and giving it a holistic evaluation. The holistic evaluations of the essays selected for the research ranged from five to nineteen points. The essays were grouped into three groups: low-rated essays (from five to nine points), medium-rated essays (from ten to fourteen points), and high-rated essays (from fifteen to nineteen points).

Method: Topical Structure Analysis (TSA)

As the study involved measuring coherence as an indicator of learner text quality by establishing patterns of information structuring in learner essays in relation to the holistic evaluation of these essays, the method chosen for the analysis was topical structure analysis (TSA), originally developed by Lautamati in 1978, and drawing on the theory of theme and rheme. TSA looks at how the discourse topic and subtopics are manoeuvred to produce clarity in composition; it focuses on the semantic relationships that exist between sentence topics and the discourse topics, progressively building meaning. Lautamatti (1978) identified three progressions of topics:

(1) parallel progression (the topics are semantically co-referential);

(2) sequential progression (the topics are always different and come out of the comment of the previous sentence; and

(3) extended parallel progression (a parallel progression temporarily interrupted by a sequential progression).

Topical structure analysis focuses on the semantic relationships that exist between the sentence topics and the overall discourse topic (Grabe and Kaplan, 1996). Through topical structure analysis, these relationships can be studied by looking at sequences of sentences and examining how topics in the sentences work through the text to progressively build meaning. TSA appears to be a most suitable method for analysing coherence as it considers both global coherence (the meaning of the essay) and local coherence (how sentences building meaning in relation to each other and the overall thesis) of the text.

The following steps help to explain the process involved in the topical structure analysis:

(1) numbering each sentence in the passage;
(2) highlighting the topic (word or phrase) in each sentence;
(3) drawing a diagram of the passage sentences;
(4) establishing the type of progression.

Figure 2 illustrates topical structure analysis and presents the topical structure diagram showing the three types of sentence progressions in a sample essay.

Sample Topical Structure Analysis

Essay Title: Why is it Important to Have a Room of your Own?

1. A human being is like a bird that has its own space, house.

2. Every animal has its area in the Earth as well.

3. That is why every person prefers having his own corner, which can become the most valuable for his heart.

4. It does not matter what kind of room I have at home.

5. My feelings are the most important.

6. First of all I have to feel safe in my room.

7. Secondly, I need this space of being alone when it's really necessary.

8. Furthermore, when I feel depressed, discontented and confused I always have to use my diary, which I can keep only in my own room.

9. On the whole, I think that a person can dream, cry or even cope with sorrow and be happy only in his own room.

10. There are only some ideas on this topic.

11. And finally I would like to add that people who have not got their own room lose a half of personal feelings, keep their suffer inside and do not know what a real only your and nobody's else room means.

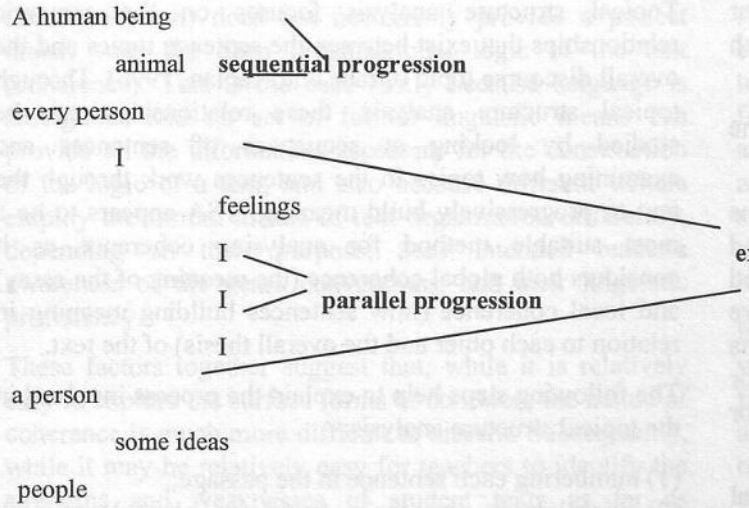

Figure 2. Three Types of Sentence Progressions

In the study, all the instances of the three progressions were identified and counted in all the essays within each category (low-rated, medium-rated and high-rated) and added up to establish the overall ratio of each progression within each category.

Results: Relationship Between Holistic Evaluation and Topical Structure of Learner Essays

The topical structure analysis of each essay involved identifying sentence topics, charting the progress of sentence topics, and determining sentence progression. In this kind of analysis three types of progressions of sentences were identified: parallel, sequential and extended parallel. In the parallel progression, the sentence topics are semantically co-referential; in sequential progression, the sentence topics are always different, as the comment of the previous sentence becomes the topic of the next sentence; and in extended parallel progression, a parallel progression is temporarily interrupted by a sequential progression.

Presented below are the results of the TSA in the three groups of essays.

Low-Rated Essays

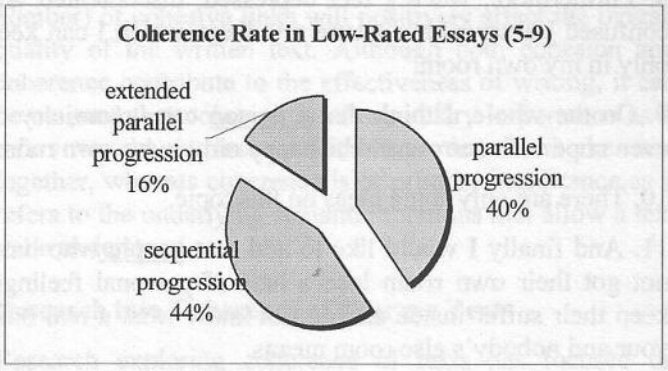

Figure 3. Topical Structure in Low-rated Learner Essays

Figure 3 shows that in low-rated essays the rate of sequential progression is 44%, the rate of parallel progression is 40%, and the rate of extended parallel progression is 16%.

This kind of distribution of the different sentence progressions in low-rated essays implies that the extensive use of sequential progression (developing too many new topics) results in excessive digressions to the point of irrelevance; the extensive use of parallel progression (dwelling too long on one subject) results in unnecessary repetitiveness and redundancy; and the sparse use of extended parallel progression (insufficient reference to the main thesis) results in a lack of focus – all of which have an adverse effect on the overall quality of a written text.

Medium-Rated Essays

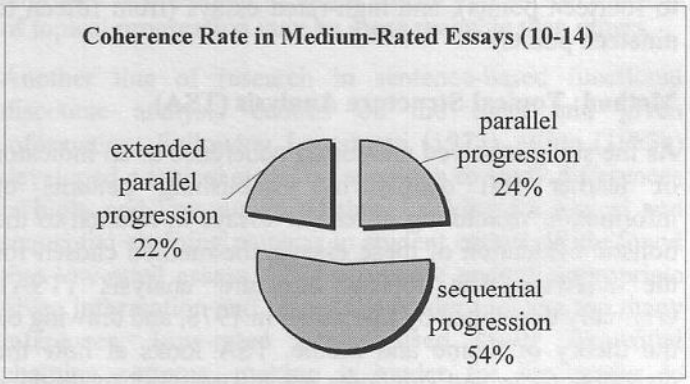

Figure 4. Topical Structure in Medium-rated Learner Essays

Figure 4 shows a different distribution of sentence progression types in medium-rated essays: the rate of sequential progression is 54%, the rate of parallel progression is 24%, and the rate of extended parallel progression is 22%.

If we compare the topical structuring of medium-rated essays with that of low-rated essays, we may notice that the rate of parallel progression is considerably lower in medium-rated essays (24%) than in low-rated essays (40%). This implies that a more sensible use of reference to one particular subtopic allows for a more adequate development of other subtopics (note a higher rate of sequential progression).

The rate of sequential progression is much higher in medium-rated essays (54%) than in low-rated essays (44%). A higher rate of sequential progression indicates that the topic idea is much more developed by providing supporting details in middle-rated essays than in low-rated essays. This does not produce the impression of the author digressing too much (as was the case in low-rated essays, although the ratio of sequential progression was lower),

because after each digression the author refers back to the main thesis (note a high increase in the rate of extended parallel progression).

The use of extended parallel progression is a little higher in medium-rated essays (22%) than in low-rated essays (16%), which suggests that medium-rated essays adhere to the focus more consistently and thus express the main thesis more clearly.

High-Rated Essays

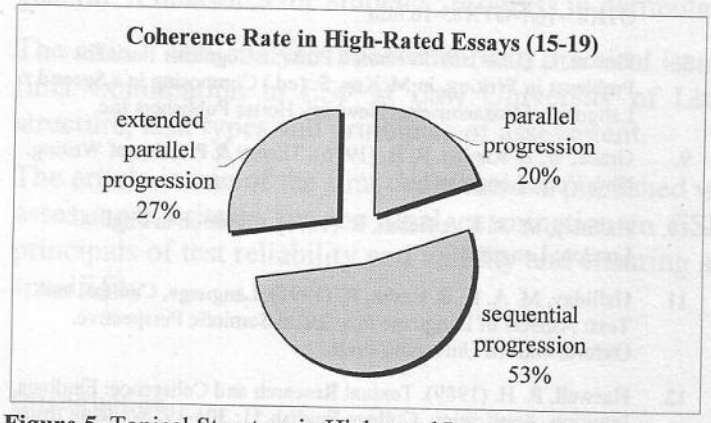

Figure 5. Topical Structure in High-rated Learner Essays

Figure 5 shows that in high-rated essays the rate of sequential progression is 53%, the rate of extended parallel progression is 27%, and the rate of parallel progression is 20%.

It may be claimed that effective writers achieve coherence by developing the thesis through the extension of the main topic by a series of additional subtopics (sequential progression), by consistently referring back to the main thesis to maintain focus and global unity (extensive parallel progression), and by giving sensible attention to detail within each subtopic (parallel progression).

Discussion, Conclusions and Further Implications

The results of the study, summarised in Figure 6, show that there is a relationship between the ratio of different types of sentence progression in learner essays and the holistic evaluation of those essays.

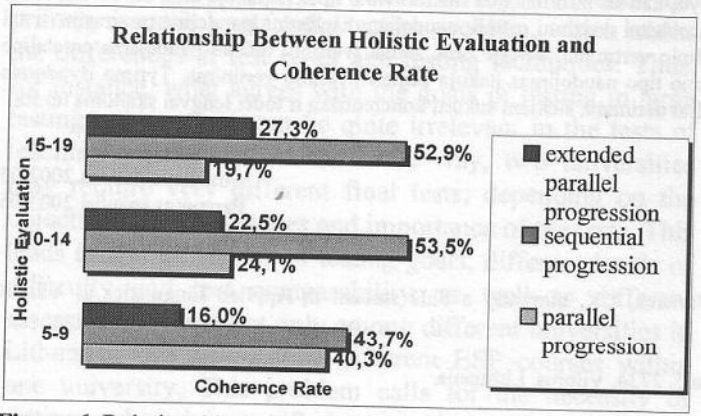

Figure 6. Relationship Between Holistic Evaluation and Coherence Rate

Essays are perceived as better quality texts and receive a higher holistic evaluation when the use of parallel progression is in good balance with the use of extended parallel progression. Conversely, essays are perceived as poor quality texts and receive lower holistic evaluation when the use of parallel progression is over-extensive, and the use of extended parallel progression insufficient. As the rate of sequential progression is similar in differently rated essays, it implies that the use of sequential progression has no decisive impact on the overall quality of text.

The impact of the different sentence progression types on the quality of text may be summarised as follows:

(1) The use of parallel progression, where sentence topics are semantically co-referential, is perceived by the reader as repetition of the same topic in the essay and reinforcement of the idea, but, if used over-extensively and at the expense of extended parallel progression, may produce the impression of redundancy.

(2) The use of sequential progression, where semantic topics are always different, typically derived from the content of the comment in the previous sentence, is perceived by the reader as development of individual topics by adding details to an idea. If used sensibly, and in good balance with the other types of progression, it may add to the overall good quality, whereas too much development for a sentence topic, especially if it is not directly linked to the thesis statement of the essay, may distract the reader from the main idea.

(3) The use of extended parallel progression, where the writer returns to a topic stated earlier in the essay and in this way clearly shows the link between the different subtopics and also between the overall discourse topic, is perceived by the reader as good focus and explicitness of expression. Absence or sparse use of extended parallel progression may produce an overall impression of an unfocused text which lacks global meaning.

The study shows that effective student writers take advantage of some writing strategies in their essay organisation which differ from those used by less effective writers. This implies that emphasis needs to be given to the teaching of effective writing strategies and means of achieving coherence, namely, a balanced use of sentence progression types with a particular focus on extended parallel progression. Teaching student writers to analyse their own writing and transform it can give less effective writers the tools for improvement. In an EFL classroom, students could benefit most by using the topical structure analysis to revise their first draft, as suggested by Connor (1984). This coherence check would help students sort out their ideas and make improvements if necessary.

The study also has its implications for assessment. In order to achieve a higher degree of objectivity in the evaluation of written texts, descriptors of coherence could be formulated more explicitly and included into the existing assessment scales. In this way, coherence/incoherence would be easier to establish.

The present research has its limitations in that it only investigated a small number of essays (58), which is not

substantial enough for making highly reliable inferences. Also, only holistic evaluation was taken into consideration, without distinguishing among the different assessment scale descriptors, such as vocabulary or accuracy, which could have been decisive determiners in the assessors' holistic judgements. Finally, the paper did not take into account the educational backgrounds of the writers, which might have partly explained why some students were more successful than the others at using certain way of information structuring in achieving coherence.

Further research is necessary to investigate the patterns of information structuring in learner essays written in English and learner essays written in Lithuanian, followed by an analysis of information structuring in effective texts written by good Lithuanian writers. In this way a contrastive analysis of L1 and L2 writing could be carried out with regard to patterns of information structuring in texts, which would make it possible to identify sources of writing problems for Lithuanian learners of English and suggest ways in which Lithuanian learners of English could improve their writing quality.

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Informacijos struktūrinimas besimokančiųjų tekstuose: ryšys tarp teminės struktūros ir holistinio rašinių vertinimo

Santrauka

Darbe tyrinėjama lietuvių studentų angliškai parašytų tekstų koherentiškumas. Analizuojami vidurinio (intermediate) lygmens mokinių rašiniai, siekiant nustatyti galimą sąsają tarp holistinio rašinių vertinimo ir rašinyje panaudoto informacijos struktūravimo tipo. Informacijos struktūravimo tipui nustatyti taikomas tematinės struktūros analizės metodas (Lautamatti 1978). Analizė parodė, kad ir aukštą įvertinimą ir žemą įvertinimą gavusiuose rašiniuose dominuoja (atitinkamai 50 proc. ir 40 proc.) sekos progresija. Tai leidžia manyti, kad šis informacijos stuktūravimo tipas neįtakoja arba beveik neįtakoja rašinių holistinio vertinimo. Rezultatai taip pat parodė, kad net 30-tyje proc. aukštai įvertintų rašinių naudojama išplėstinė paralelinė progresija, ir tai leidžia manyti, jog šis informacijos struktūravimo tipas įtakoja aukštesnį rašinio vertinimą. 40-tyje proc žemai įvertintų rašinių naudojama paralelinė progresija, ir tai leidžia manyti, jog dažnas šio tipo informacijos struktūravimo tipo naudojimas įtakoja žemesnį rašinio vertinimą. Tyrimo išvadomis remiantis, galima teigti, kad šie trys tematinės struktūros tipai turėtų būti subtiliai derinami, siekiant sukurti koherentišką ir todėl lengvai skaitomą tekstą.

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