DISCOURSE ANALYSIS OF GRAMMATICAL COHESION DEVICES IN STUDENT EXPLANATION TEXTS

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Abstract: This study aims to investigate the use of cohesive grammatical devices in twelfth-grade students’ explanation texts and to explore the types of grammatical cohesion specifications in their essays. The analysis of grammatical cohesion is based on the conceptual framework proposed by Halliday and Hasan (1976). The sample consists of [...] 20 selected [...] out of [...] 33 of the twelfth grade Senior High School Level in [...] Al Ikhlash Islamic Boarding School West Java. The research uses descriptive and analytic studies by assigning students to write the texts. The result shows that 146 cohesive grammatical items were found in students’ explanation texts. The reference occurs 68 times which has 46.5 of percentages. Conjunction occurs 53 times with 36.3% percent. Substitution occurs 23 with 15.7% percent. Ellipsis occurs two times with the lowest rate of 1.3%. This result revealed that all four types of grammatical cohesion appear in students’ explanatory texts. The most dominant was the reference and conjunction; on the other hand, ellipsis was the smallest presentation among grammatical cohesive, and only a few students used them, h. However, there are subtypes of cohesive devices that do not exist in students’ explanation texts from all of those devices: they are clausal substitution, adversative conjunction, and verbal and causal ellipsis. The results also indicated that the lack of grammatical cohesion devices used in terms of the generical structure of explanation text, knowledge, and ability in writing leads the college students to use inappropriate grammatical cohesion devices to be applied to this type of text. Thus, this study gives teachers feedback that the discussion on the structural writing of texts and the use of coherence and cohesion should be more intensive.

Keywords: A Discourse Analysis, Grammatical Cohesion, Students’ explanation text.

1. Introduction

One of the most critical factors in creating written texts is the mastery of discourse analysis because analysis has an important influence on drawing attention to the art of language, which puts the user’s knowledge of phonological, grammatical, and lexical resources into action every time the language user achieves successful communication (Johansson & Lindgren, 2021). Moreover, there are four basic skills in English, including; listening, reading, speaking, and writing (Shaby & Love, 2021). These basic skills play an equally important role in learning English of the above essential arts. However, writing is a skill
that is not easy to master for students. To produce easy-to-understand, well-formed sentences and correct language, students must pay more attention to the primary language arts factors above. According to Salim et al. (2021), students must understand how to convey ideas, thoughts, and opinions in various forms of writing. Writing ability is one of the most important aspects for students, especially twelfth-grade students, because it will be their college education benchmark (Syarif and Sunubi 2019).

Writing activities for students aim to remember and explore things and solve problems. This writing activity is expected to be carried out outside the classroom, not only inside. Students are expected to have good writing. One of the indicators is to write using cohesive grammar that is good and correct. Cohesion is one of the arts of writing skills that must be possessed. According to Ahsanuddin and Ma’shum (2021), grammatical cohesion is used in associating sentences to write coherently. Cohesion and coherence are essential in written discourse; the aim is to make excellent and orderly texts and make it easier for students to understand and absorb the information conveyed. The term cohesion is often also juxtaposed with language learning. And it is part of the language system. This is also interpreted as a language unit that provides continuity to the text. Non-structural relations are relations that help the reader to connect (Nunan, 1993). Richards in Rostami and Gholami (2016) reveal that cohesion is a linguistic, grammatical relationship between unequal text units that can also be referred to as the relationship between different sentences or between parts of the sentence that are not the same.

According to Halliday and Hasan in Afzaal et al. (2019), to support the information above, cohesion can be delivered partly through grammar, partly through lexical or grammatical cohesion—several types of grammatical cohesion units, including grammatical cohesion references, substitutions, ellipsis, and conjunctions. At the same time, reiteration and collocation are included in lexical cohesion. Both reveal that cohesion refers to the relationship of meaning in the text. Hasan and Halliday also explain that cohesion is the unity of purpose between units in a text and several important teams expressing opinions. Referring to some of the views above, the author can review that the similarities in a text are the text’s unity. They are all emphasized in a text. Those all have their respective roles in creating a good and orderly puzzle that is also useful for determining whether the sentence is reasonable. It all happens when two supportive combinations can form sentences that are both useful and understandable at the same time.

Creating a good paragraph is not easy. In this case, a lack of proficiency in grammar will affect the results of writing that are not coherent. Many students lose their way of connecting ideas and even abuse grammatical cohesion tools in writing. Students’ diminishing knowledge and ability to use grammatical cohesion devices is a serious problem. In line with Afrianto (2017), the lack of understanding and awareness of cohesion, especially regarding the grammar of cohesion devices, impacts the misuse of the improper grammar of cohesion devices. Therefore, implementing and learning grammatical cohesion devices effectively and regularly will affect cohesion and good writing quality.
Based on the explanation above, the researcher focuses on analyzing the grammatical cohesion devices used in students’ explanation text; the reason for choosing student explanation text is to determine the quality of understanding, knowledge, and ability of grammatical cohesion devices used at the higher education level. This analysis identifies students’ explanation text. Therefore, the purpose of this analysis by the researcher is to examine the sets of grammatical cohesion in using explanation texts and identify their role in influencing the written discourse on student quality.

Many researchers researched several studies investigated the discourse analysis of grammatical cohesion devices in students’ texts, such as those conducted by Emilia et al. (2018), researching the cohesion of exposition texts. This research is conducted qualitatively, particularly text analysis, of the eleventh graders of Bandung, Indonesia. The researchers used systemic functional linguistics (SFL) to analyze the texts that 32 students wrote, and six were chosen to represent low, mid, and high achievers. They found out that the texts have all elements of exposition. Moreover, some cohesive devices were employed in the text with 48 conjunctions and 47 references, while the ellipsis and substitution were reported as minor occurrences.

In addition, Trisnaningrum et al. (2019) examined the analysis of the use of grammatical cohesion in students, “writing academic essays as part of discourse analysis”. This study explored the knowledge of grammatical cohesion device specifications in academic writing essays for students in higher education. The findings reveal that 1048 sets of grammatical cohesion are used in reports. Another finding showed that the highest use of grammatical cohesion devices was references and conjunctions, with 53.53%. The data also explains that students are more closely related to authorities and meetings than substitutions and ellipsis. The results also clarify that the lack of grammatical cohesion tools used in terms of understanding, knowledge, and ability in writing causes students to use the wrong grammatical cohesion device.

Moreover, Priangan et al. (2020) researched cohesion and coherence in an argumentative essay by a university student at Syekh Nurjati state Islamic Institution, Cirebon. They used discourse analyses as a research design. Five argumentative essays have been chosen and analyzed using Halliday and Matthiessen’s (2014) theory that contributes to the cohesion of the text, remarkably cohesive devices. This study found that university students in that institution tend to use references more often than other devices, with 532 in 755 occurrences of cohesive grammatical devices in the essays.

All the studies above found almost similar things in cohesive grammatical voices, namely reference, and conjunction, dominating the students’ text. At the same time, substitution and even ellipsis have the lowest percentage in the students writing. According to the researcher analysis, the use of cohesive devices will depend on several things, firstly the ability of the writer, in this case, the student, secondly how much experience they have in using grammatical devices, and finally, of course, cannot be separated from the role of the teacher in helping students so that a
written work is achieved, which is characterized by being cohesive and coherent.

The newest thing in this research differs from the previous related study, it aims to find cohesive grammatical devices in twelfth-grade students’ level in explanation texts in one of the boarding schools in Kuningan, West Java, Indonesia. In addition, this study also aims to explore the types of grammatical cohesion specifications so that this present study will contribute to proving that mastery of grammatical cohesion affects writing quality.

Therefore, based on the research background, the researchers formulated some related questions into some questions that are: what kind of grammatical cohesion is there in the students’ explanation text? And what is the most commonly used grammatical cohesion device in the student’s explanation text? In line with the research question, the purpose of this study is meant to find out which cohesive grammatical device that mostly found in the student’s explanatory text, which the students created cohesive grammatical device the most, and to find out how good the quality of their student’s writing explanation texts.

2. Literature Review

Writing is a communication process that uses a traditional graphic system to convey messages to readers. Therefore, the composition or placement of language is the basic foundation of writing that must be considered. Different ideas will produce other languages. In English, organizing means classifying ideas into specific groups and arranging them logically (Khadawardi, 2020). Before and during writing, there are times when it is essential to organize the ideas. Writing needs to be more effective and logical; discourse analysis is necessary for the cohesive grammatical means of writing. Gerot and Wignell in Kurniawan et al., (2021) Cohesion refers to the connections within the discourse itself, and consistency refers to the links that readers or listeners can make according to knowledge outside the address. Therefore, a cohesive is an unstructured relationship that aims to help texts relate to each other. The linked text flows information reflected in choosing vocabulary or connecting words that support text relationships.

According to Halliday and Hasan in Afrianto (2017), discourse cohesion devices are divided into lexical and grammatical cohesion groups. The grammatical cohesion includes references, substitutions, ellipsis, and conjunctions. Reference is a condition where one component cannot be interpreted semantically unless mentioned as another component in the text., Conjunctions are used by the author so that the reader can relate the ideas previously presented, the reader can relate to the previously presented ideas., Substitution is intended to replace a word with another, and ellipsis is the omission of an item (Bahaziq, 2016).

According to Johnson and Verdicchio (2017), the author must use a cohesive device to allow connections between ideas. This can be done through explicit language or vocabulary tools. In their work on cohesion in English, Halliday and Hasan in Parazaran (2015) reveal that writers often use cohesive devices to direct readers through a text. Appliances can be grouped as grammatical forms of
cohesion or lexical cohesion. Abdalla (2017) argues that cohesion is formed on the semantic relationship between lexical and grammatical units in a text. In addition, appropriate lexical and grammatical cohesion can match what is being said and what will be said. In addition, Parazaran and Motahari in Johnson and Verdicchio (2017) explain that cohesion has an important influence in making text unity and is also a regulator in a text. Then, Halliday and Hasan revealed that cohesion is a semantic concept. And it refers to the binding of meanings that exist in the text and what constitutes it as a text.

Halliday and Hasan in Tulus Wibawati and Musthafa (2019) reveal that among the various kinds of cohesive grammatical devices are substitution, reference, ellipsis, and conjunction. Almutairi (2017) explains that the definition refers to something else for them to interpret. T, and the reader must sort out what signs are identify the signs mentioned outside and inside the text. Reference refers to the use of anaphoric, cataphoric, and exophoric. He also revealed that substitution is when a word/phrase can be changed in other words. Substitution can be in the form of several nominal (same, one, and one), verb or verbal forms (do), and clause (no, so).

Furthermore, according to Paltridge in Canagarajah (2018), the ellipsis is an idea to remove part of a sentence assuming that the previous sentence will further clarify the meaning. Then, the last set is the reference conjunction for words, for example, and, finally, however, and in conclusion, which brings together phrases, clauses, or parts of a text in such a way that they express the logical-semantic connection between them. As a reference, the above expression lists Halliday's cohesion devices and Hasan's conceptual arrangement, quoted in Afrianto (2017). In summary, referring to the explanation above, in this research, the researcher examines and checks the students’ text results according to the grammatical cohesion device used the researcher examines and checks the students’ text results according to the grammatical cohesion device used in this research. Grammatical cohesion of the device is an integral will prove the quality of the coherent written text.

3. Methodology

Method and Design of the Research

This study took a qualitative approach and employs a descriptive research design. The researchers used descriptive and analysis methods to explore students' knowledge and abilities in utilizing grammatical cohesion devices in written texts. The data was collected through primary data collection, which is an observational method. The primary data in this research is the twelfth-grade students’ texts. The techniques of data analysis techniques which process consist of data reduction, data presentation, and deriving conclusions or verification. In this research, the data was analyzed by installing employing the framework of Halliday and Hasan's grammatical cohesion device. The data were chosen to observe the student's ability in writing and their mastery of the use of the cohesive grammatical device. Here are the further explanation of the data collection and the data analysis:
The Technique of Data Collection

A total of twenty students’ texts from the twelfth grade were chosen to become the data in this research. The data were chosen to observe their ability in writing and their mastery in the use of the cohesive grammatical device. The steps included collecting students’ daily text writing, calculating every cohesive device in their writing, and classifying them based on their subtypes.

The Technique of Data Analysis

Research data was examined through the results of student essays by assigning them to write simple present explanation texts. The stages of exploring the data were as follows:

1. Collect data on students’ writing assignments.
2. Calculate each cohesive grammatical aspect of each student’s writing and enter it according to its grouping in each table.
3. Naming the cohesive device through the formula;
   \[ P = \frac{N}{T} \times 100\% \]
   
   \( P \) = percentage
   \( N \) = Types or sub-types of grammatical cohesive devices
   \( T \) = Total Grammatical devices produced by students
4. Assessing the correctness and incorrectness of cohesive devices in students’ writing.
5. Classifying the kinds of grammatical cohesion devices specification by inputting the examples of grammatical cohesion devices in students’ essays.

Findings

This section used the data to answer the research problem stated. The data provided answers the most grammatical cohesion devices used by the students, describe the types of grammatical cohesion specifications in their essays, and, finally, analyzes the writing quality. The first data shows the frequent grammatical cohesion devices used by the twelve-grade of Al-Ikhlash boarding school in Kuningan, west-java in their text writings are shown in the table below:

<table>
<thead>
<tr>
<th>Type of Grammatical Cohesion</th>
<th>Students’ Grammatical Devices Use</th>
<th>Students’ Cohesion in Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>References</td>
<td>68</td>
<td>46.5%</td>
</tr>
<tr>
<td>Substitution</td>
<td>23</td>
<td>15.7%</td>
</tr>
<tr>
<td>Conjunction</td>
<td>53</td>
<td>36.3%</td>
</tr>
<tr>
<td>Ellipsis</td>
<td>2</td>
<td>1.3%</td>
</tr>
<tr>
<td>Total</td>
<td>146</td>
<td>100%</td>
</tr>
</tbody>
</table>

Based on the table, reference is the most frequent grammatical cohesiveness device used by the twelve-grade students of Al-Ikhlash, with 46.5% of all grammatical cohesion devices. The second type of cohesive grammatical device is in conjunction with 36.3%. Meanwhile, substitution was used 15.7%, while ellipsis received only 1.3%. To obtain more detailed information, the researcher provides the cohesive grammatical devices used by the twelve-grade students of Al-Ikhlash into specific types and sub-types of the cohesive grammatical device.

This result draws into the assumption that twelve-grade students cannot apply the use of grammatical cohesiveness devices to their writing. Because from a total of 20 students, only 146
cohesive device items appeared in the students’ texts, it was also found that almost all students could not finish the text in a few paragraphs. This shows how weak the students in this study were in writing and the weaknesses in the understanding structure. The teacher’s instructions are less than optimal, causing this to happen. In addition, the table also shows an uneven distribution in the use of cohesive device subtypes by students. The following is a distribution diagram of grammatical cohesive device usage distribution in each subtype. The first diagram shows the distribution of the reference that illustrates the following:

The pie chart above shows that demonstrative reference is the most dominant subtype with 62%, followed by personal 31% and comparative 7%. The result indicates that the students have enough experience to apply the reference in their writing. The second chart will illustrate as follow:

In a conjunction pie chart, additive conjunction has the most frequent, additive 66.1%, temporal 28.3%, causal 5.6%, and adversative 0%. The chart shows that student additive conjunction is the most dominant subtype used by the students, followed by temporal, causal, and no adversative found in the text. Next is the substitution that will draw in the chart below:
The chart shows that the students use only verbal substitution and a few nominal to connect their words and sentences. Moreover, there is no causal found in their text. The result shows the lack of students’ mastery of grammatical cohesion devices knowledge, especially in this subtype and the ellipsis that will be present in the chart pictured below:

The chart shows that nominal ellipsis appeared in the student’s text only twice. Lastly, the research provides detailed descriptions of grammatical cohesion devices used in detail. The description can assume the level of familiarity, knowledge, and comprehension of college students toward grammatical cohesion devices in writing. For more details, the description of grammatical cohesion device use can be shown as follows:

<table>
<thead>
<tr>
<th>Type of grammatical cohesion devices</th>
<th>A subtype of grammatical cohesion devices</th>
<th>The kinds of grammatical cohesion devices in reading text of English National Final Examination</th>
<th>The number of grammatical cohesion devices uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>References</td>
<td>Personal</td>
<td>I, me, my we, our, us, she, her, he, him, his, it, they, them, their</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>Demonstrative</td>
<td>this, that, there, now</td>
<td>42</td>
</tr>
<tr>
<td></td>
<td>Comparative</td>
<td>more, less, better</td>
<td>5</td>
</tr>
</tbody>
</table>
Based on the research’s analysis, this limitation occurs because students’ writing quality is still far from ideal; it is characterized by only very few cohesive device items in their writing and the uneven distribution of devices. They have difficulty developing their writing due to a lack of vocabulary, so they cannot fulfill the writing structure, namely introduction, processing content, and conclusion. Because of that, subtypes like comparative reference, temporal conjunction, and causal substitution did not exist in the data that took from students writing.

4. Discussion

This section will discuss the finding. The result reveals that the most dominant of the four types is the cohesive reference device, where all the subtypes appear, namely personal, demonstrative and comparative reference. Bahaziq (2016) explains that reference is a condition where one component cannot be interpreted semantically unless mentioned as another component in the text. The students used demonstratives in the form of this student’s explanation text. This happens because the explanation of the text explains more about the third object, even though personal references appear quite dominant; this happens because students in the text do not understand the structural proportions of the text. According to Wagner et al. (2020), the ideal explanatory text consists of a preliminary description and then explains claims, evidence, and reasons; conclusions can be made with the author’s opinion but with a smaller portion. This is what distinguishes between explanatory text and procedure text. These results mean that students have not been able to use references correctly.
Furthermore, additive conjunction appears the most because students do not have enough ideas to develop their writing. The minimal use of temporal conjunctions indicates this. A conjunction is a word or group of words that connect two constructions grammatically the same, namely: words, phrases, or clauses, so that they play a role in building the cohesion of a text (Akbulut, 2020). From the results of this study, it can be assumed that most students cannot build good connections in their writing. Students’ writing becomes weaker because they cannot present substitutions and ellipsis. Only subtypes of verbal substitution and nominal ellipsis appear in students’ texts in the research data. According to Aurel and Hsieh (2020), substitution is intended to replace a word with another; an ellipsis is the omission of an item. Both occur because students are not very familiar and do not have sufficient knowledge to explain texts.

The results mean that students are not mastering cohesive grammar, affecting their writing ability. In this study, students’ texts were very monotonous, and there was a lot of repetition of personal refs, demonstrations, and conjunctions. Students cannot master other subtypes, the seminal temporal conjunction, which is very important in connecting ideas in each paragraph and making conclusions. Then, students who do not understand the text type structure will use the wrong subtype. This might happen because several factors have been stated in many studies. The lack of understanding and awareness of cohesion, especially regarding the grammar of cohesion devices, impacts the misuse of the improper grammar of cohesion devices. Therefore, implementing and learning grammatical cohesion devices effectively and regularly will affect cohesion and good writing quality (Afrianto, 2017). lack of inadequate student knowledge of grammar, including the influence of mother tongue interference, lack of vocabulary, and language background (Othman, 2019).

Furthermore, students do not have sufficient experience in using cohesive grammatical devices (Chai & Swanto, 2020). The lack of grammatical cohesion tools used in terms of understanding, knowledge, and ability in writing causes students to use the wrong grammatical cohesion device (Jayanti & Hidayat, 2021). Students also lack adequate training; as Dossoumou (2018) stated, all factors are relevant. In addition, this research happened because the students lacked grammatical cohesion devices regarding the general structure of explanatory texts. Knowledge and writing skills cause students to use grammatical cohesion devices that are inappropriate for this type of text.

Finally, this result is undoubtedly a problem identification that students’ writing abilities are still far from ideal. Therefore, experimental research is needed to increase students’ abilities to apply cohesive grammatical devices to improve student writing quality. According to Bosselut et al. (2018), writing a good essay should start with an obvious paragraph, a declarative topic sentence, and the rest of the paragraph follows that sentence. Everything in the paragraph is tied back to the statement in the beginning. This result is certainly not good for students, although naturally, they can present cohesive grammatical devices in their texts.
5. Conclusion and Suggestions

It can be concluded that students’ lack of lack understanding, knowledge, and the ability to write and use grammatical cohesion devices. From the result and the discussion above, it is indicated by only a few cohesive device items that appear. Reference occurred 68 times with a percentage of 46.5. Conjunction occurred 53 times with 36.3% percent. Substitution occurred 23 with 15.7% percent. Ellipsis occurred twice with the lowest rate of 1.3%. The results showed that the four types of grammatical cohesion appeared in the students’ explanatory texts, the primary data in this study. However, subtypes of cohesive devices are not present in the students’ explanatory texts of all these devices. The most dominant are references and conjunctions; on the other hand, the ellipsis is the smallest presentation among grammatical cohesives, and only a few students use it. The result shows that students’ lack of grammatical cohesion devices used in terms of the generical structure of explanation text, knowledge, and ability in writing leads the college students to use inappropriate grammatical cohesion devices to be applied to this type of text. Thus, this study gives teachers feedback that the discussion on the structural writing of texts and the use of coherence and cohesion should be more intensive.

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