A Corpus-based Analysis of Modal Auxiliaries of William Golding’s Novel “The Lord of Flies”

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ABSTRACT
This study aimed to identify the types of modal auxiliaries and the meanings of modal auxiliaries in the novel The Lord of Flies by William Golding. This study uses mixed methods. First, this study used corpus-based quantitative data to obtain modal auxiliary in The Lord of Flies novel examined by looking at the concordance and frequency of the Ant Conc software tools. Second, the data analysis process used qualitative methods to show the function or meaning of the modal auxiliary verbs in The Lord of Flies novel. Based on data analysis, it shows that there are 549 modal auxiliary verbs in The Lord of Flies novel divided into 9 types of modals, namely the modal could with an occurrence frequency of 161 times (24.49%), the modal can with an occurrence frequency of 136 times (24.91%), the modal would appear with a frequency of 111 times (20.33%), the modal might appear with a frequency of 41 times (7.69%), the modal must appear with a frequency of 37 times (6.78%), the modal should appear with a frequency of 22 times (4.03%), the modal will appear with a frequency of 15 times (2.75%), the modal may appear with a frequency of 14 times (2.56%), and the modal shall appear with a frequency of 8 times (1.47%). And the meanings of modal auxiliary verbs in The Lord of Flies novel are intentional, epistemic, deontic, and dynamic meanings.

Keywords: A Corpora, Modal Auxiliaries, Novel “The Lord of Flies”

INTRODUCTION
The scientific study of language is called linguistics. Linguistics is a basic study of linguistics (Asman dkk., 2023). Gleason (1962) stated that linguistics was a scientific study to understand language from an internal point of view and an external point of view (Yeltriana dkk., 2023). In discussing the structure of language, there are two aspects of language that can be studied, namely internal aspects (linguistic micro) and external
aspects (linguistic macro) (Minarti dkk., 2023). The internal aspects of language include phonology (the study of language sounds and their functions), morphology (the study of word formation), syntax (the study of the formation of words in sentences), and semantics (the study of the meaning of language). The external aspect of language is an aspect that studies language and branches of other disciplines, for example, psycholinguistics (psychology and linguistics), sociolinguistics (sociology and linguistics), and ethnolinguistics (ethnology and linguistics) (Balaha dkk., 2021). Aarts and Aarts (1982) stated that words can be grouped into two classes, namely major word class and minor word class (Alsubaie, 2022). The major word class is also known as an open word class because its membership is not limited because new members are still allowed to be added. Open word classes or major word classes are nouns (book, pencil, ruler), verbs (go, come, walk, etc), adjectives (beauty, ugly, angry, happy, etc), and adverbs (always, almost, etc). Minor word classes are referred to as closed word classes whose membership is limited because they do not add new word classes (Kamorudeen, 2021). Kelas kata tertutup yaitu conjunction (and, but, or, etc), article (the, a, an), personal pronoun (you, yourself, myself, etc), quantifier (any, many, much, etc), interjection (wow!, yes!, oh!, etc), dan preposition (in, at, on, etc). Aarts and Aarts (1982) stated that there are sub-classes of verbs in English, namely lexical verb and auxiliary verb (Holly dkk., 2023). A lexical verb is the main verb in a sentence, while an auxiliary verb is a verb that cannot stand alone but must be followed by a lexical verb (Almarzooq dkk., 2020). Auxiliary verbs or commonly called helping verbs are divided into two classes: primary auxiliary verbs, and modal auxiliary verb.

Auxiliary verbs are also referred to as helping verbs which are divided into two classes: the main auxiliary verb and the modal auxiliary verb (Xie dkk., 2019). The main auxiliary verbs consist of be, do, and have. Auxiliary verbs, have and be, have unlimited forms and can be placed at the beginning or in the middle, the variables are limited and generally do not occur in other verbs. The main auxiliary verb is used before the main verb to change the time or emphasis in the sentence.

Modals are part of auxiliary verb that functions as helping verb to get more meaning. This is one of the semantic components such as ability, obligation, and possibility. Modals are one of the helping verb or auxiliary verb adding structural meaning or semantic meaning to verbs that have more meaning than full verbs such as ability, obligation, and possibility (Vicky dkk., 2023). The modal auxiliary verb has two formal tenses: present tense and past tense. In general, words are used to identify possible, impossibility, ability, promise, suggestion, etc. modal auxiliary verbs are words giving meaning to a sentence such as the meaning of possibility, ability, willingness, permission, promise and others (Blanchete dkk., 2018). Beaumont and Granger (1989) stated that the forms of auxiliary verbs or modal verbs are can, could, may, might, will, would, shall, should, and ought to (Sohn & Kwon, 2020). Based on the form, there are two parts of the modal auxiliary verb: Common Modals (Pure Modals) and Semi-modals (Abdul Afwu Godly Prayitno, 2020). Common modals are can, could, will, would, shall, should, may, might, must, need, ought, and dare. In general, these forms are always followed by a verb
without to. But to indicate a condition, modals are also always followed by the word "be". Semi-Modals are have to, ought to, used to, be able to, be about to, be to, be supposed to, and be allowed to (Mustapa dkk., 2022). They have the same meaning as pure modals, but semi-modals are only verbs. However, in this study, researchers only focused on pure modals (can, could, shall, should, may, might, must, ought to, will, would).

Modals are not only found in grammar books but also in novels. A novel is one of the long story of literary work consisting of words, clauses, and sentences (Wang dkk., 2020). A novelist uses language to express ideas and thoughts, emotions, and experiences. Therefore, researchers are interested in examining the forms and meanings of modals used in William Golding’s novel The Lord of Flies by using corpus antconc tools to make it easier to read and analyze data.

This research is expected to be able to provide information related to grammatical learning, especially in the form and meaning of modal auxiliary verbs (Wang dkk., 2020). In addition, this research is also expected to be able to provide understanding to readers, especially students majoring in English literature regarding the form and meaning of modal in the novel The Lord of Flies.

RESEARCH METHODOLOGY

This study used mixed methods (Thaher dkk., 2021). The beginning of the study used corpus-based quantitative data to obtain modals auxiliaries in the novel The Lord of Flies examined by looking at the concordance and frequency of the Antconc tools, and in the process of data analysis using qualitative methods to show the function or meaning of modals auxiliaries in The Lord of Flies novel.

The list of modal auxiliaries generated by the software is carried out in a reduction process to separate modal auxiliaries from other words (Elnagar dkk., 2020). Furthermore, auxiliary modals are classified according to their respective meanings in the sentence. After obtaining the auxiliary data, a qualitative analysis was carried out to find out the function of each auxiliary modal in the sentence to then draw a conclusion.

RESULT AND DISCUSSION

The tool used in this research is Ant Conc version 4.1.4 developed by Laurence Anthony. Ant Conc is a corpus tool that can be used by researchers to make it easier for them to read data, especially the frequency and concordance of a word. And this tool is suitable for use in this research because it fulfills the features needed to complete this research (Al-Ayyoub dkk., 2018). These features are as follows:

Frequency

In general, this feature refers to the number of occurrences of a word in a particular corpus. This can be used to show quantitative-based data or count how many times a word appears in the corpus. So that this frequency analysis makes it easier for researchers to recognize the words most often used in the corpus data. In this study, researchers focused on the emergence of auxiliary modals (Boufenar dkk., 2018). This feature helps
researchers to find out which modals appear in The Lord of Flies novel, and how many times these modals appear in the novel.

Concordance

Concordances are words that accompany a word we are looking for in the corpus tool that is before and after the word we are looking for (Zhang dkk., 2021). One of the most common methods used in linguistic corpus research is the use of keywords in context or KWIC (keyword in context) (Huang dkk., 2021). This feature helps researchers to carry out qualitative analyzes carried out on existing corpus data. So that it allows researchers to explore the meanings of modal auxiliaries in The Lord of Flies novel.

The result of Ant Conc

Table 2. The data of research

<table>
<thead>
<tr>
<th>File Name</th>
<th>The Lord of Flies.Pdf</th>
</tr>
</thead>
<tbody>
<tr>
<td>File Tokens</td>
<td>66071</td>
</tr>
<tr>
<td>File Types</td>
<td>5989</td>
</tr>
</tbody>
</table>

In the early stages, the novel The Lord of Flies was processed in the Ant Conc software (Osamy dkk., 2021). Then the wordlist feature in the tool generates data in the form of a list of words contained in the novel based on the number of occurrences, as shown in the following data:

Table 3. The Example List of 150 Word based on Their Frequency

<table>
<thead>
<tr>
<th>No.</th>
<th>Lexicon</th>
<th>Freq</th>
<th>No.</th>
<th>Lexicon</th>
<th>Freq</th>
<th>No.</th>
<th>Lexicon</th>
<th>Freq</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The</td>
<td>4676</td>
<td>51</td>
<td>came</td>
<td>135</td>
<td>101</td>
<td>still</td>
<td>75</td>
</tr>
<tr>
<td>2</td>
<td>And</td>
<td>2338</td>
<td>52</td>
<td>when</td>
<td>126</td>
<td>102</td>
<td>us</td>
<td>75</td>
</tr>
<tr>
<td>3</td>
<td>Of</td>
<td>1747</td>
<td>53</td>
<td>only</td>
<td>122</td>
<td>103</td>
<td>beach</td>
<td>74</td>
</tr>
<tr>
<td>4</td>
<td>A</td>
<td>1461</td>
<td>54</td>
<td>about</td>
<td>121</td>
<td>104</td>
<td>saw</td>
<td>74</td>
</tr>
<tr>
<td>5</td>
<td>To</td>
<td>1164</td>
<td>55</td>
<td>rock</td>
<td>121</td>
<td>105</td>
<td>feet</td>
<td>73</td>
</tr>
<tr>
<td>6</td>
<td>He</td>
<td>1132</td>
<td>56</td>
<td>don</td>
<td>117</td>
<td>106</td>
<td>did</td>
<td>72</td>
</tr>
<tr>
<td>7</td>
<td>Was</td>
<td>986</td>
<td>57</td>
<td>their</td>
<td>116</td>
<td>107</td>
<td>took</td>
<td>72</td>
</tr>
<tr>
<td>8</td>
<td>page</td>
<td>874</td>
<td>58</td>
<td>water</td>
<td>115</td>
<td>108</td>
<td>are</td>
<td>71</td>
</tr>
<tr>
<td>9</td>
<td>ralph</td>
<td>795</td>
<td>59</td>
<td>island</td>
<td>114</td>
<td>109</td>
<td>towar</td>
<td>71</td>
</tr>
<tr>
<td>10</td>
<td>That</td>
<td>643</td>
<td>60</td>
<td>right</td>
<td>114</td>
<td>110</td>
<td>sat</td>
<td>71</td>
</tr>
<tr>
<td>11</td>
<td>You</td>
<td>613</td>
<td>61</td>
<td>see</td>
<td>114</td>
<td>111</td>
<td>way</td>
<td>70</td>
</tr>
<tr>
<td>12</td>
<td>On</td>
<td>556</td>
<td>62</td>
<td>or</td>
<td>111</td>
<td>112</td>
<td>Know</td>
<td>69</td>
</tr>
<tr>
<td>13</td>
<td>They</td>
<td>538</td>
<td>63</td>
<td>would</td>
<td>111</td>
<td>113</td>
<td>among</td>
<td>68</td>
</tr>
<tr>
<td>14</td>
<td>We</td>
<td>518</td>
<td>64</td>
<td>where</td>
<td>109</td>
<td>114</td>
<td>lay</td>
<td>68</td>
</tr>
<tr>
<td>15</td>
<td>At</td>
<td>495</td>
<td>65</td>
<td>turned</td>
<td>107</td>
<td>115</td>
<td>hair</td>
<td>68</td>
</tr>
<tr>
<td>16</td>
<td>there</td>
<td>429</td>
<td>66</td>
<td>mountain</td>
<td>106</td>
<td>116</td>
<td>boy</td>
<td>66</td>
</tr>
<tr>
<td>17</td>
<td>Go</td>
<td>410</td>
<td>67</td>
<td>other</td>
<td>105</td>
<td>117</td>
<td>how</td>
<td>66</td>
</tr>
<tr>
<td>18</td>
<td>Him</td>
<td>394</td>
<td>68</td>
<td>more</td>
<td>102</td>
<td>118</td>
<td>my</td>
<td>62</td>
</tr>
<tr>
<td>19</td>
<td>It</td>
<td>360</td>
<td>69</td>
<td>stood</td>
<td>102</td>
<td>119</td>
<td>think</td>
<td>53</td>
</tr>
<tr>
<td>20</td>
<td>were</td>
<td>347</td>
<td>70</td>
<td>do</td>
<td>101</td>
<td>120</td>
<td>between</td>
<td>51</td>
</tr>
<tr>
<td>21</td>
<td>Had</td>
<td>327</td>
<td>71</td>
<td>who</td>
<td>100</td>
<td>121</td>
<td>looking</td>
<td>49</td>
</tr>
<tr>
<td>22</td>
<td>For</td>
<td>324</td>
<td>72</td>
<td>forest</td>
<td>99</td>
<td>122</td>
<td>after</td>
<td>49</td>
</tr>
<tr>
<td>23</td>
<td>Full</td>
<td>321</td>
<td>73</td>
<td>went</td>
<td>99</td>
<td>123</td>
<td>After</td>
<td>48</td>
</tr>
<tr>
<td>24</td>
<td>home</td>
<td>308</td>
<td>74</td>
<td>beast</td>
<td>97</td>
<td>124</td>
<td>became</td>
<td>44</td>
</tr>
<tr>
<td>25</td>
<td>Them</td>
<td>305</td>
<td>75</td>
<td>smoke</td>
<td>97</td>
<td>125</td>
<td>end</td>
<td>43</td>
</tr>
<tr>
<td>26</td>
<td>contents 292</td>
<td>76</td>
<td>time</td>
<td>96</td>
<td>126</td>
<td>might</td>
<td>42</td>
<td></td>
</tr>
</tbody>
</table>
A Corpus-based Analysis of Modal Auxiliaries of William Golding’s Novel “The Lord of Flies”.

The data above shows that there are 66071 tokens in The Lord of Flies novel, and the examples of the word list above are reduced, classified, and then analyzed according to the purpose of this study.

**Data Reduction**

At this stage, the researcher focuses on the data in the previous table which is then reduced by separating the modal auxiliary data in the data. In this research, only focus on pure modals (Tuttle dkk., 2021). Beaumont and Granger (1989) pure modals include can, could, shall, should, may, might, must, ought to, will, would. so that the following data is obtained:

<table>
<thead>
<tr>
<th>No.</th>
<th>Modal Auxiliaries</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Could</td>
<td>161</td>
</tr>
<tr>
<td>2</td>
<td>Can</td>
<td>136</td>
</tr>
<tr>
<td>3</td>
<td>Would</td>
<td>111</td>
</tr>
<tr>
<td>4</td>
<td>Might</td>
<td>42</td>
</tr>
<tr>
<td>5</td>
<td>Must</td>
<td>37</td>
</tr>
<tr>
<td>6</td>
<td>Should</td>
<td>22</td>
</tr>
<tr>
<td>7</td>
<td>Will</td>
<td>15</td>
</tr>
<tr>
<td>8</td>
<td>May</td>
<td>14</td>
</tr>
<tr>
<td>9</td>
<td>shall</td>
<td>8</td>
</tr>
<tr>
<td>10</td>
<td>Ought to</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL</strong></td>
<td><strong>546</strong></td>
</tr>
</tbody>
</table>

Table 4. Modal Auxiliaries of The Lord of Flies
A Corpus-based Analysis of Modal Auxiliaries of William Golding’s Novel “The Lord of Flies”.

Figure 1. Percentage of modals

The data above shows that there are 549 modal auxiliaries in The Lord of Flies which are divided into 9 types of modal, and there is no type of ought to. The 9 types of modal are modal "could" with a frequency of occurrence of 161 times (29.49%), modal "can" with a frequency of occurrence of 136 times (24.91%), modal "would" with a frequency of occurrence of 111 times (20.33%), modal "might" with a frequency of occurrence of 42 times (7.69%) (Jung, 2019), modal "must" with a frequency of occurrence of 37 times (6.78%), modal "should" with a frequency of occurrence of 22 times (4.03%), modal "will" with a frequency of occurrence of 15 times (2.75%), modal "may" with a frequency of occurrence of 14 times (2.56%), and modal "shall" with a frequency of occurrence of 8 times (1.47%). Then in the next stage, the classification of the existing modal auxiliary data is carried out.

Data Classification

At this stage, the researcher classified the types of modal auxiliaries in table 3 above. The classification is done to group the types of modals based on their respective functions and meanings. Classification based on grammar Beaumont & Granger and Charles J. Fillmore. Beaumont and Granger stated that the auxiliary (modal) verb consists of can, could, may, might, must, will, would, shall, should, and ought to. Dan Fillmore divides sentence structure into two elements, namely modality and proposition (Basid, A., Kamil, H. I., & Innah, M. 2021). According to Alwi (1990) through Musdolifah, A. (2018) modality consists of intentional, epistemic, deontic, and dynamic meanings. As in the table below:

<table>
<thead>
<tr>
<th>Meaning of modals</th>
<th>Kind of meanings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intensional</td>
<td>Desire</td>
</tr>
<tr>
<td></td>
<td>Hope</td>
</tr>
<tr>
<td></td>
<td>Invitation</td>
</tr>
<tr>
<td></td>
<td>Negation of invitation</td>
</tr>
<tr>
<td></td>
<td>Request</td>
</tr>
</tbody>
</table>

Table 5. Classification of modal auxiliaries
To find out the meaning of the modal can in The Lord of Flies novel, the researcher conducted a search using the KWIC (Keyword in Context) feature, in order to obtain the following data:

**Figure 2. Concordance of Could**

Based on the corpus data above, it shows that the modal could in The Lord of Flies contains epistemic, deontic and dynamic meanings. Examples of modal could containing epistemic meaning (Impossibility) can be seen in corpus data No.27, examples of modal could containing deontic meanings (Giving permission) can be seen in corpus data No.20, and examples of modal could containing dynamic (Ability) meanings can be seen in data corpus No.23.

**Modal Can**

To find out the meaning of the modal can in The Lord of Flies novel, the researcher conducted a search using the KWIC (Keyword in Context) feature, in order to obtain the following data:

**Figure 3. Concordance of Can**
A Corpus-based Analysis of Modal Auxiliaries of William Golding’s Novel “The Lord of Flies”

Based on the corpus data above, it shows that the modal can in The Lord of Flies novel contains epistemic and dynamic meanings. An example of modal can showing an epistemic (Impossibility) meaning can be seen in corpus data No.1, and an example of modal can showing a dynamic (Ability) meaning can be seen in corpus data No.61.

**Modal Would**

To find out the meaning of modal would in The Lord of Flies novel, the researcher conducted a search using the KWIC (Keyword in Context) feature, so that the following data was obtained:

Based on the corpus data above, it shows that the modal would in The Lord of Flies novel contains intentional and epistemic meanings. An example of modal would showing intentional meaning (Desire) can be seen in corpus data No.77, and an example of modal would showing epistemic meaning (Prediction) can be seen in corpus data No.63.

**Modal Might**

To find out the meaning of modal might in The Lord of Flies novel, the researcher conducted a search using the KWIC (Keyword in Context) feature, so that the following data was obtained:
A Corpus-based Analysis of Modal Auxiliaries of William Golding's Novel “The Lord of Flies”.

Figure 6. Concordance of Might

Based on the corpus data above, it shows that the capital might in The Lord of Flies novel contains epistemic meaning. In addition, the capital might can also be used to show past and present times.

Modal Must

To find out the meaning of the modal must in The Lord of Flies novel, the researcher conducted a search using the KWIC (Keyword in Context) feature, in order to obtain the following data:

Figure 7. Concordance of Must

Based on the corpus of data, it shows that the modal must in The Lord of Flies novel contains epistemic and deontic meanings. Examples of modal must which contain epistemic meaning (possibility) can be seen in corpus data No.19, and modal must which contains deontic meaning (command) can be seen in corpus data No.26.

Modal Should

To find out the meaning of modal should in The Lord of Flies novel, the researcher conducted a search using the KWIC (Keyword in Context) feature, in order to obtain the following data:
Based on the corpus of data, it shows that the modal should in The Lord of Flies only contains epistemic meaning.

**Modal Will**

To find out the meaning of the modal will in The Lord of Flies novel, the researcher conducted a search using the KWIC (Keyword in Context) feature, in order to obtain the following data:

Based on the corpus data, it shows that the modal will in The Lord of Flies contains intentional, epistemic, and dynamic meanings. An example of will capital which contains intentional meaning can be seen in data corpus No. 14, an example of modal will which contains epistemic meaning can be seen in corpus data No.11, and modal will in corpus data No.8 means ability based on the context, so modal will also contains dynamic meaning.
Modal May

To find out the meaning of modal may in The Lord of Flies novel, the researcher conducted a search using the KWIC (Keyword in Context) feature, so that the following data was obtained:

![Figure 10. Concordance of May](image)

Based on the corpus of data, it shows that the capital must in The Lord of Flies novel only contains epistemic meaning.

Modal Shall

To find out the meaning of the modal shall in The Lord of Flies novel, the researcher conducted a search using the KWIC (Keyword in Context) feature, in order to obtain the following data:

![Figure 11. Concordance of Shall](image)

The corpus data shows that the modal must in The Lord of Flies only contains epistemic meaning.

CONCLUSION

The conclusions obtained try to answer the questions in the problem formulation previously described, namely what types of modals are in The Lord of Flies novel and what the meanings of modal auxiliaries are contained in The Lord of Flies novel. Based on data analysis, it shows that there are 549 modal auxiliaries in The Lord of Flies which are divided into 9 types of modal, and there is no type of modal “ought to” found. The 9
types of modal are modal "could" with an occurrence frequency of 161 times (29.49%), modal "can" with a frequency of occurrence of 136 times (24.91%), modal "would" with an occurrence frequency of 111 times (20.33%), modal "might" with a frequency of occurrence of 42 times (7.69%), modal "must" with a frequency of occurrence of 37 times (6.78%), modal "should" with a frequency of occurrence of 22 times (4.03%), capital "will" with a frequency of occurrence of 15 times (2.75%), modal "may" with a frequency of occurrence of 14 times (2.56%), and modal "shall" with an occurrence frequency of 8 times (1.47%). And the meanings of modal in The Lord of Flies are intentional, epistemic, deontic, and dynamic.

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https://doi.org/10.14257/jigdc.2018.11.9.09


