A CRITICAL DISCOURSE ANALYSIS OF ENGLISH ELECTRONIC NEWS REPORTS ON ENVIRONMENTAL SUSTAINABILITY

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Abstract - This research aims to discover the discourse features of English electronic news reports (EENRs) on environmental sustainability which are lexical, grammatical and textual features in light of critical discourse analysis (CDA) by Fairclough [3]. A combination of mixed research methods was applied with the qualitative method including a descriptive analysis and the support of the quantitative approach. 69 EENRs on the topic concerned were collected from the UN News website. The study results reveal that words and expressions related to the topic of environmental sustainability, formal words, content words and metaphors are typical lexical features of the discourse. The transitivity, passive and active voices, modes of sentences, relational modality, pronouns, expressive modality and cohesion are also recorded as grammatical features of the discourse.

Key words - environmental sustainability; analysis; news reports; ideology; power

1. Introduction

With the boom of the mass media, the reality of environmental problems, potential solutions and benefits of environmenal sustainability is well known to the public. With regard to discourse features, news reports bear certain typical properties differentiating them from other types of discourse. This article aims to carry out a detailed critical discourse analysis of 69 English electronic news reports (EENRs) on environmental sustainability in terms of vocabulary analysis, grammatical analysis, textual structure and the ideology embedded in the discourse within Fairclough [3]'s three dimensional analytical framework including "*description of text, interpretation of the relationship between text and interaction, and explanation of the relationship between interaction and social context*" [3: 91]. It is hoped the study findings are of some use for students, teachers and especially for those specializing in language and journalism in grasping typical characteristics of this kind of discourse.

2. Research questions

To address the aims and objectives of the study on the basis of the property of discourse analysis in light of CDA, the two research questions are put forward:

(1) What is the textual description of English electronic news reports on environmental sustainability in terms of vocabulary, grammar and textual structure analysis in CDA perspectives?

(2) How is ideology conveyed in the discourse of EENRs on environmental sustainability?

3. Literature review and theoretical concepts

3.1. Literature review

A vast literature of research relating to critical discourse analysis has so far been recorded.

Tyrwhitt-Drake [16] offered a critique of Fairclough's CDA and suggested an alternative approach to doing CDA. Grue [4] argued that CDA can profitably adopt insights from the metaphor theory of Lakoff [6], the psycholinguistic and language processing arguments of O'Halloran [10] and classical rhetorical analysis. Carvalho [1], however, claimed that CDA is the single most authoritative line of research regarding the study of media discourse. Hoffmann [5] explored the ways in which the term "overshare" has been used in The Huffington Post, The New York Times and The Wall Street Journal. Taylor [14] critically analysed the standards of the Forest Stewardship Council and Australian Forestry Standard. Stobbs [13] investigated the methods and lexis used by Barack Obama in his inaugural speech. Priatmoko [11] described language, power, and ideology of president Susilo Bambang Yudhoyono's speech about the Jakarta bombings. Liu [8] explored the Internet as a rich text for environmental marketing. Wallström [18] also examined how the New York Times portrays Melania Trump in her role as First Lady.

In Vietnam, Phạm Thị Tuấn [15] provided a critical analysis of the two speeches on women by Hillary Clinton in 1995 and 2013. Lưu Thị Kim Nhung [9] critically analyzed how the power relation between the developed and developing countries as well as the ideologies about these countries's responsibilities for climate change discursively constructed in The Independent and The New York Times' coverage. Nguyễn Đặng Mai Linh [7] also illustrated the relationship between language, ideology and political stance in the discourse of Chinese and Vietnamese online media coverage of the East Sea dispute.

In general, based on available literature revealed in the previous works, the researchers also made an analysis on ideology, power, and language through the values of vocabulary, grammar and textual structure. However, most research has been done on a number of discourse categories such as articles, speeches, and there has been no research on the discourse of electronic news reports in English, especially on the subject of environmental sustainability, a topic of public concern and of the authors interest. This study was, therefore, conducted with the aim of discovering the discourse features in terms of lexical, grammatical and textual structure analysis in light of CDA and shedding more light on the ideology conveyed in the discourse.

3.2. Theoretical concepts

3.2.1. Critical discourse analysis

CDA can be perceived as a description of the relationship between "language and power, and particularly of how language contributes to the domination of some people by others", "the extent to which their language does rest upon common-sense assumptions, and the ways in which these commonsense assumptions can be ideologically shaped by relations of power" [3:3].

3.2.2. Electronic news reports

According to Van Dijk [17], the notion of news is ambiguous. News may be understood not only as new information or as a news article but also as a TV program in which news is presented. In other words, he proposed the notion of media news in everyday usage implying the following concepts:

a. New information about events, things or persons.

b. A (TV or radio) program type in which news items are presented.

c. A news item or news report, i.e., a text or discourse on radio, on TV or in the newspaper, in which new information is given about recent events.

This study focuses on news as presented in c. That is to say, it deals with a type of text or discourse as it is expressed, used, or made public in news media or public information carriers such as TV, radio, or the electronic newspaper. Electronic News Reports then can be comprehended as news reports dedicated to advancing knowledge of news as publicized through electronic media platforms.

3.2.3. Environmental sustainability

Wess [19] made a summary on the United Nations (UN) environmental sustainability involving the following topics: ozone layer protection, adequate drinking water and sanitation infrastructure, carbon dioxide emission-reduction, protection of certain terrestrial and marine areas, protection of forests, wetlands, biodiversity, water resources, fish stock, and so forth.

In BusinessDictionary.com, environmental sustainability is defined as maintaining the factors and practices contributing to the quality of environment on a long-term basis.

With the above bases, environmental sustainability can be interpreted as responsible interaction with the environment to avoid depletion or degradation of natural resources and allow for long-term environmental quality.

4. Methodology

4.1. Data collection

Followings are steps for data collection in the research. The researcher first searched for sources of news reports on the theme of environmental sustainability from websites. The reliable website, *UN News*, was then chosen and the news reports were classified according to the content of the theme concerned. Next, the samples were filtered so that the range of word number is acceptable. Finally, the classification of news reports from the website based on the number of words and the content was conducted.

4.2. Data description

For the coverage of environmental sustainability subtopics and for the objectivity of the research, the population of the study comprises 69 news reports in the website - *UN News*, which is: https://www.un.org

Each piece of news report, also considered as a sample selected for the study had to be identified through the following criteria:

- The content of the news report must be relevant to the topic of environmental sustainability.

- The average length of each news report varies from 400 words to 650 words.

This only website was chosen for the study because of the two reasons. First, these English news reports on the same website can be considered as one entity to show consistent ideology hidden in the discourse. Second, it is a trustworthy and reliable website with a large number of news reports, operated by the UN Web Services Section (WSS).

Based on Wess [19]'s topics of environmental sustainability and on the basis of the researcher's perception of environmental sustainability, the data collected were categorized into the following subtopics:

Table 1. *Categorization in EENRs on environmental sustainability subtopics*

Environmental Sustainability Subtopics	Number of News Reports	%
Climate moderation	22	31.9
Ocean pollution and air pollution mitigation	11	15.9
Biological diversity conservation	11	15.9
Water scarcity management	6	8.7
Renewable energy sources	6	8.7
Forest protection	6	8.7
Soil and land preservation	6	8.7
Ozone layer protection	1	1.5

4.3. Instrumentation

The software WordSmith version 5.0 by Mike Scott was employed in figuring out the results analysis.

4.4. Research Method

To achieve the set goal, a mixed method was employed in the study.

- The qualitative method was used to generate concrete discourse description features including vocabulary, grammar and textual structure with experiential, relational and expressive values in the discourse within the framework of CDA.

- The quantitative approach was of necessity in the way that the frequency of key words in each vocabulary domain was counted and the frequency of items featuring grammatical value was determined.

5. Findings and discussion

5.1. Vocabulary analysis

It is found in the research that ranges of words and expressions related to the topic of environmental sustainability are used. A high frequency of typical words in the realm of environmental sustainability is observed, for example, *climate change, water, land, forest, energy, pollution, soil, biodiversity*. The experiential value of words in the discourse is also demonstrated through meaning relations of words including synonymy, antonymy and hyponymy. The research results demonstrate the relationship between the participants in the discourse through the employment of euphemisms and words conforming to the formality or informality to show relational values. 519 instances of content words (nouns, verbs, adjectives, adverbs) bearing evaluation of their meaning were recorded, which constitutes expressive value of words in the sense of inclination, *e.g, sustainable, positive, green, safe, secure, sustainably,* probability, *e.g, preventable, possible, affordable, accessible, inevitable, undoubtedly*, importance or significance, *e.g, vital, significant, important, crucial, essential, indispensable, critical, beneficial, fundamental*, seriousness, *e.g, serious, extreme, severe, dangerous, destructive, harmful, catastrophic, devastating, alarming, deadly, unsustainable,* or criticism, *e.g, hogwash, unfairness, short-sightedness, inequality, unfair*. Metaphors are also used in the discourse as a means to softly and persuasively convey thoughts, ideas and beliefs of the UN Organization in protecting the environment with 89 instances documented.

The frequency of key terms used in the discourse is illustrated in Table 2 below.

Table 2. *The rewording in EENRs on environmental sustainability*

Key words	Instances	%
Climate change	162	26.6
Water	126	20.6
Land	85	13.9
Forest	61	10
Energy	50	8.2
Pollution	47	7.8
Soil	40	6.5
Biodiversity	39	6.4
Total	610	100

The statistics on the use of euphemisms and words conforming to formality and informality are shown in Table 3.

Table 3. *The use of euphemisms and formal and informal words in EENRs on environmental sustainability*

Relational values	Number of instances	%
Euphemism	21	22.1
Formal word	69	72.6
Informal word	5	5.3
Total	95	100

5.2. Grammar analysis

First, the study findings on experiential values of grammar reveal that the most frequent type of process in use is the verbal process while the behavioral process involving physiological and psychological behavior is absent, which is appropriate in news reports discourse whose main purpose is to vividly report or describe events. To illustrate, the reporting verbs in verbal process recorded in the discourse include *say, note, state, explain, continue, add, tell, comment, point out, elaborate, detail, spell out, stress, emphasize, assert, reiterate, commend, underline, highlight, call on, maintain, underscore, urge, affirm, conclude, declare, size up, exhort, warn*.

Table 4 summarises the transitivity study analysis.

Table 4. *Transitivity in EENRs on environmental sustainability*

Process type	Instances	%
Verbal	527	50.9
Material	322	31.1
Relational	89	8.6
Existential	65	6.3
Mental	32	3.1
Total	1035	100

Concerning the use of voice in the discourse, it is noticeable that the active voice is used predominantly. This may indicate the purpose of the discourse is to focus on the agent who performs the action or emphasize the description of the events. The distribution of the active and the passive voice in the discourse is codified in table below.

Table 5. *Distribution of Voices in EENRs on environmental sustainability*

Voice	Instances	%
Active	836	80.8
Passive	199	19.2
Total	1035	100

Second, three areas of investigation: modes of sentences, modality and the use of pronouns. Fairclough [2:125] reflects the relational value of grammar of the discourse. The finding results uncover that declarative sentences account for the most part in the discourse, which explains that the function of news reports is to provide readers with certain information. The figures are illustrated in Table 6 below.

Table 6. *Modes of sentences in EENRs on environmental sustainability*

Utterance	Instance	%
Declarative	990	95.6
Imperative	45	4.4
Question	0	0
Total	1.035	100

The findings also reveal that the relational modality in the discourse is expressed through the use of modal auxiliary verbs, modal adjectives, If-Clause, quasi-modal verbs, and modal lexical verbs [12]. With regard to the use of modal auxiliary verbs, *must*, which signals strong obligation and *should*, which denotes and connotes dynamic necessity or

advisability were recorded. The second element constituting the relational modality is the use of modal adjectives, for instance, *imperative, essential, vital, crucial, important, critical, fundamental, necessary*. They function as predicates over the fact, event, or state of affair. The third component of the relational modality in the discourse is the use of *If*-clause, functioning to enable the speaker to qualify his commitment to the truth or the actuality of an event. As for quasi-modal verbs, *need* and *have to*, which express necessity, are observed in the discourse. The last element that constitutes the relational modality in the data collection is modal lexical verbs, such as *urge, expect, hope, demand*. They are in combination with the first-person pronoun *I* or *We* to convey the speaker's weak suggestion or request. The table below shows the figures about the use of the relational modality in discourse.

Table 7. Relational modality in EENRs on environmental sustainability

Relational modality	Instances	%
Modal auxiliaries verbs	43	34.4
Modal adjectives	28	22.4
If-clause	25	20
Quasi-modal verbs	19	15.2
Modal lexical verbs	10	8
Total	125	100

In the discourse, the pronouns *I*, inclusive *we*, and *you* help to establish the relationship between the speaker or writer and the addressee. The use of pronouns is summarized in the table below.

Table 8. Pronouns in EENRs on environmental sustainability

Pronouns	Instance	%
We	151	79.9
I	28	14.8
You	10	5.3
Total	189	100

In the question of the expressive value of grammar, the expressive modality is expressed through the use of modal verbs indicating possibility or different degrees of certainty in the perception of the speaker or writer. The finding results of the study uncover that the modal verbs bearing expressive modality include *can, could, will,* and *would*. The expressive modality is also expressed through the use of modal adverbs, for instance, *of course, probably, actually, certainly, surely, really, hopefully, undoubtedly, dramatically, luckily, significantly, drastically, massively, tremendously, resolutely, urgently*. The use of modal verbs can be illustrated in Table 9 below.

Table 9. Modal verbs in EENRs on environmental sustainability

Modal verb	Instance	%
Will	135	54.2
Can	79	31.7
Would	18	7.2
Could	17	6.9
Total	249	100

The last aspect of grammatical value is cohesion in the discourse. The finding results reveal that formal connections between sentences in the discourse include reference, connectors, repetition and substitution with reference is used most prominently. Connectors rank second with the use of temporal connectors including *first, second, third, meanwhile, in concluding, all in all* and a large proportion of logical connectors such as *and, but, yet, moreover, however, therefore, for instance, furthermore, in addition, as a result, what's more, additionally, consequently, also*, etc. Repetition and substitution are the two other cohesive devices in the discourse. The figures can be illustrated in Table 10 below.

Table 10. Cohesive devices in EENRs on environmental sustainability

Cohesive devices	Instances	%
Reference	464	52.4
Connectors	178	20.1
Repetition	124	14
Substitution	119	13.5
Total	885	100

5.3. Textual structure analysis

Fairclough states that "the whole of a text may be made up of predictable elements in a predictable order" [3: 114]. According to Fairclough [3], the main elements are included in a news reports and "the headline and first paragraph in particular giving what are regarded as the most important parts, and the gist, of the story" [3: 115]. The study results reveal that all the news reports headlines in the discourse highlight the description of the events or what was done to address the issue of environmental degradation and the benefits of environmental sustainability, for example, New UN agency guidelines aim to sustain forest benefits for future generations.

Additionally, Fairclough [3] also maintains that interpretation of the text structure "involves matching the text with one of a repertoire of schemata, or representations of characteristic patterns of organization associated with different types of discourse" and "the 'point' of a text is a summary interpretation of the text as a whole" and "the experiential aspect of the point of a text is its overall topic" [3: 120]. In this study, the news reports have portrayed the elements of the issues of environmental sustainability and those words are topicalized to serve this purpose with the eight subtopics as follows: Climate moderation, ocean pollution and air pollution mitigation, biological diversity conservation, water scarcity management, renewable energy sources, forest protection, soil and land preservation and ozone layer protection.

Ideologically, the mass media is the most prominent source of knowledge, attitude and opinion. Journalists possess the power to implicitly insert ideological stances in their news reports in order to influence their readers' opinions and attitudes. The presence of implicit strategies to express an ideological position, e.g. the use of euphemisms, metaphors, modality, pronouns, the active and the passive voice, transitivity, modes of sentences,

connectors or quotes, ect has been studied in a limited corpus of EENRs concerning environmental issues.

All these characteristics of the discourse convey the UN's message that environmental sources are finite, and in the age of industrialisation and modernisation, we are facing more and more extreme weather changes, global warming and environmental degradation. Humanity, therefore must learn to live within the limitations of the biophysical environment and form a habit of living in harmony with nature for the sake of long-term environmental quality.

6. Conclusion and Implications

6.1. Conclusion

In this study, EENRs on environmental sustainability have been analyzed in light of CDA at three stages: Description, Interpretation, and Explanation. The description of linguistic features of the news reports discourse brings us the knowledge of the connection between the news reports' ideology and power and the use of language of the journalists. This procedure has been carried out in terms of vocabulary and grammar in forming the three values: experiential, relational and expressive. Besides, the analysis also sheds light on textual structure of EENRs on environmental sustainability.

6.2. Implications

Finding out the typical characteristics of discourse features of EENRs in light of CDA in terms of the textual description including vocabulary analysis, grammar analysis and textual structure does much contribution in teaching and learning English news reports.

For learning of English, to achieve certain communication goals, learners may comprehend journalists' combination of presenting facts with expressing ideas and attitude effectively through the choice of words as follows.

First, the ideology is highlighted by the use key words representing the experiential value, synonyms, antonyms and hypernyms, which all help to focus the readers on the subject of environmental sustainability effectively. Moreover, when writing EENRs, the journalist should make a choice of euphemism, words conforming to formality and informality to express the relational values of words on the topic. It is also crucial that to constitute the expressive value of words, content words bearing evaluation of their meaning should be in use. The use of metaphors is also recommended in EENRs on environmental sustainability.

In addition, to gain the discourse values of grammar, the journalist should employ some principles of using grammatical structures. The types of process used to express the experiential value of grammar are verbal, material, relational, existential and mental processes with the verbal process used dominantly in the discourse. The results of the study, therefore, could shed light on the typical discourse features of news reports. In expressing the experiential value of grammar, it is also necessary to include the active voice and passive voice with the majority of the active voice in use, aiming to emphasize the agent performing the action or the description of the events. Concerning the relational value of grammar, declarative sentences should be used mostly to provide readers with certain information on the topic and imperative sentences are included to vividly convey the message of the speakers. Besides, relational modality is of great importance in the way that the authority of one participant in relation to others is established. The third element to constitute the relational value in grammatical features is pronouns, helping to establish the relationship between the speaker or writer and the addressee. In forming the expressive value of grammar, expressive modality involving the use of modal verbs and modal adverbs should be used to indicate possibility or different degrees of certainty in the perception of the speaker or writer. As for the formal connections between sentences in the text, cohesive devices should also be used.

Finally, in writing news reports, the journalist should follow the textual structure in which the headline is considered as the gist of the news report.

For teaching of English, first, since EENRs on environmental sustainability are authentic text sources, teachers can use them in the classroom for both developing students' critical language awareness and illustrating persuasive use of language by drawing students' attention to linguistic elements which are ideologically significant. Besides, for the implication on textual structure analysis of English news reports discourse, in reading classes, in order to activate the background knowledge of the students or in order to help students have a general idea of what the reading text is about, students may be asked about the headline of the reading text as a pre-reading activity. Through focusing on the headline of the reading text, students can gradually get the hidden messages given in the headlines.

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