

EPISTEMIC MODALITY VALUES IN APPLIED LINGUISTICS DISSERTATIONS WRITTEN BY INDONESIAN STUDENTS IN ENGLISH-NATIVE COUNTRIES

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Abstract

Epistemic modality is an essential linguistic feature in academic writing. However, it is complex for language learners, especially EFL learners, to use it appropriately. This study investigates the use of epistemic modality in applied linguistics dissertations written by Indonesian doctoral students in English-native universities. The study focuses on the distribution of the value of epistemic modality in the findings and discussion part of the dissertations. The results show that Indonesian doctoral students frequently employ low and median values of epistemic modality. From the findings, it can be inferred that Indonesian doctoral students prefer to propose their arguments tentatively to avoid absolutizing. Hopefully, this study's findings will help EFL learners produce more rhetorically acceptable writing.

Keywords: Epistemic Modality, Applied Linguistics, Dissertation, Indonesian Students

INTRODUCTION

This study investigates the use of epistemic modality in applied linguistics dissertations written by Indonesian doctoral students in English-native universities. The investigation employed a systemic functional perspective, which offers a distinctive relation between language structures and language functions, and the meaning within the language. This perspective provides a framework to analyze modalized statements in the dissertations, which involves different levels of certainty and objectivity in terms of “Value” and “Orientation” of epistemic modality.

There is a wide range of theoretical approaches to the study of epistemic modality, from the early studies, which concern traditional modal logic (Jespersen, 1924; Von Wright, 1951; Rescher, 1968) to Linguistic modality (Lyons, 1977; Searle, 1979; Perkins, 1983; Givon, 1982;

Palmer 1986, 1990). Moreover, the studies also propose various notions of epistemic modality. According to Lyons (1977, 793), “epistemic modality is concerned with knowledge, belief, or opinion rather than fact.” Searle (1979) categorizes epistemic modality in terms of “Assertive” and “Expressive” to discuss the speaker’s beliefs and feelings regarding the truthfulness of the claim provided in the utterances. Perkins (1983) associates epistemic modality with “the law of human reason,” which is the principle of rational laws of inference, deduction, et cetera. According to Palmer (1986), epistemic modality refers not only to modal systems that fundamentally involve the concepts of possibility and necessity but also to any modal system that indicates the speaker’s commitment to the content of his/her utterance. This type of modality reveals the extent of the speaker’s “understanding or knowledge” regarding the truthfulness of the presented proposition. Consequently, epistemic modality includes expressions of judgments and evidence demonstrating the speaker’s commitment to what is being said.

From the literature on the modality in linguistics, it can be revealed numerous ways to approach modality. Palmer (1986, 1990) uses a semantic approach and categorized modality into three dimensions in terms of epistemic, deontic, and dynamic. In other scholars' views, the term modality is broadly used to refer to both grammatical terminology (tense-aspect-modality) (i.e., Givón, 1982; Bybee, 1985; Bybee et al., 1994) and semantic terminology (Palmer, 1990; Nuyts, 2006; de Haan, 2006). In fact, there has yet to be a clear cut of specific structures and patterns agreed upon among linguists to illustrate the categories of modality. Therefore, this study's notion of epistemic modality was derived from the theory of epistemic modality in Halliday's Systemic Functional Grammar (SFG) (2004).

In the literature, few corpus-based studies of the concept have been reported from the perspective of Halliday’s SFG. This perspective provides a new approach to analysing the use of epistemic modality. In SFG, epistemic modal expression is considered to have two variables, “value” and “orientation” (Halliday, 2004, p. 150). The value of epistemic modality, implying the writer’s commitment to the modalized statement, indicates different degrees of certainty at three levels and clearly differentiates between certainty and uncertainty. The orientation of epistemic modality conveys the writer’s responsibility for the modal meaning through various linguistic forms. It reveals the subjectivity or objectivity of a modal expression from the perspective of the source of modality. However, this research focuses on the value of epistemic modality.

As Halliday (1987: 10) points out, “the context of the situation is a theoretical construct for explaining how a text relates to the social processes within which it is located.” Therefore, language must be studied in context, such as the context of formal written English used in academic writing. Epistemic modality has been long regarded as a critical aspect of academic writing due to its function as a hedge or boosts propositions (Chen, 2010; Hu & Cao, 2011; Hyland, 1994, 1995, 1996a, 1996b, 1998; Mirzapour & Mahand, 2012; Wharton, 2012; Vázquez & Giner, 2008, 2009). The functions of epistemic modality are two-fold. One function is propositional or semantic; the use of epistemic modality indicates the degree of certainty of the proposition and the addresser’s confidence in the truth of the proposition. The other is

interpersonal or pragmatic; by adopting. Through politeness strategies through epistemic modality, addressers can establish relationships with their addressees and successfully communicate with them. Therefore, much research has inquired into epistemic modality in academic writing products, specifically dissertations written by doctoral students at universities.

Several recent studies also have investigated epistemic modality in different disciplines. For instance, Piqué-Angordans, Posteguillo, and Andreu-Besó (2001, 2002) found that RAs in health science, medicine, and biology mostly used epistemic modality. Vázquez and Giner (2008) compared the use of epistemic modality in marketing, biology, and mechanical engineering. Ngula's (2017) study discusses epistemic modal verbs as rhetorical markers of argumentation in Ghanaian scholars' research articles in the disciplines of Sociology, Economics, and Law. Those studies came to the same conclusion that the use of modality markers depended on the nature of the data used for the research discipline. Therefore, gaining more information about epistemic modality employed in other disciplines or even more specific fields is also necessary.

RESEARCH OBJECTIVES

1. To examine the extent of epistemic modality markers are utilised in research dissertations
2. To describe the possible function of modality markers utilised in research dissertations.

THEORETICAL FRAMEWORK

Epistemic modality in SFG

In the interpersonal function, language expresses a speaker's attitude and judgment for communicating with others. Mood and modality are realized in the lexicogrammar of the language to convey meanings. Mood is the system realized in selecting the three main illocutionary acts in terms of indicative, interrogative, and imperative. Modality is the speaker's opinion or judgment on the content and speech function of the clause. It refers to the area of meaning between the positive and the negative poles, that is, whether the process is realized or not.

Halliday (1994: 88) notes that modality is the intermediate degrees between the positive and negative poles. Further, he says (1994: 356) that modality refers to the area of meaning that lies between yes and no -- the intermediate ground between positive and negative polarity. In the social context, the human being as the language user interchanges his linguistic experience with others, which is realized in the form of the text. Modality is part of the action done by the language users when they change their linguistic experience to each other, which is represented in a text. In this interchange, the language user may give his own suggestion or comment on the commodity of what he is saying. Modality contains consideration, perspective, attitude, or judgment of the addresser to the information or goods and services, which are realized by way of statement, question, offer, and command. Halliday (1994) and Eggins (2004) note that there are two types of modality: modalization and modulation. The notion of modalization is similar

to the concept of epistemic modality. Halliday (1994) notes that modalization is concerned with the meaning ranging between the positive and negative poles, between asserting and denying: positive it is so, negative it is not. Modalization is the speaker's judgment of a proposition or information commodity, which is used in communication or interaction. Modalization divides into probability and usability. Thompson (1996) notes that probability is how likely it is to be true. It means that how the sentence is equivalent to either yes or no, for instance, maybe yes or maybe no, with different degrees of likelihood attached. Some of the essential points of the probability scale are possible - probable - certain. That scale confirms that possible is lower than probable and probable is again lower than certain are. It means that certain is more convincing than probable and possible. Halliday (1994) postulates that the degrees of usability may be represented ranging from sometimes, usually, and always. Sometimes has the lowest degree and usually has a higher degree than sometimes, and always has the highest degree. Finite operators, modal Adjuncts, and a combination of the two may construe probability and usability.

METHODOLOGY

Research Design

This research is designed as a corpus-based study of how Indonesian post-graduate students utilize epistemic markers as rhetorical devices for argumentation in their dissertations. This study is contextualized into the practices of dissertations written by post-graduate students in English-speaking country universities in the discipline of applied linguistics. Based on the purpose of this study, it is necessary to build a corpus to explore epistemic markers (realized mainly through lexical devices) that ought to be quite substantial in order to reveal notable tendencies in the use of such devices. In other words, because the present study adopts a quantitative corpus-based design: a design in which a sizeable number and volume of the relevant texts are "important for generalizable results" (Biber, 2009).

The corpus is comprised of 20 dissertations by different writers selected from applied linguistics. The dissertations were published in the university repository where the writers were studied. The researcher used the Open Access Theses and Dissertation (OATD) to determine and select dissertations. However, in searching for dissertations, the researcher used keywords related to applied linguistics. The native corpus was confined to dissertations published by universities in the inner circle of English-native countries. Not all parts of the dissertations were included. The downloaded file was selected for the discussion and conclusion part and then converted into plain text for analytical purposes. All the dissertations included in the dissertations were published in the last five years (from 2019-2022).

Data Analysis

The data analysis was conducted through several steps that included quantitative analysis. First, the list of epistemic markers was prepared to be the basis for the searcher in the corpora. The list of markers was derived from some previously written research. The initial list was grouped under their lexical categories as modal verbs, lexical verbs, adverbs, adjectives, or nouns. The

next step was extracting the epistemic device from the corpora. The extraction devices concordance search software in AntConc (Anthony, 2022). Since most of these linguistic items in context could be performing other functions besides encoding epistemic meanings, it was necessary to further closely examine each concordance output in the source text so as to be able to isolate epistemic uses from non-epistemic ones. Non-epistemic uses were deleted, and hits of genuine epistemic cases were recorded.

A rating sheet was utilized to rate the epistemic modality markers counted by AntConc. The rating was about the frequencies of the value and the orientation of modality expression found. The rating was manually done by raters. To minimize the risk of arbitrariness and guarantee the reliability of the results, there was a second rater and a third rater, other than the researchers, to code 5 randomly selected samples from the corpus independently. The invited raters are English language instructors who are well acquainted with linguistics. After each sample's coding was completed, the researcher and the second rater went through the text for coding disagreements. Differences in coding led to discussion, negotiation, and clarification of the criteria for the coding assignments. The same 20 samples were re-coded by the researcher and the third rater after the initial classification to achieve a high level of reliability. Inter-rater and intra-rater reliability was ascertained by determining agreement among the invited raters.

This study utilized IBM Statistics Software Version 26 to analyze the correlation between the frequencies of the values and the orientations of the epistemic modality markers rated. Given that the disciplinary texts of the corpus data were the same length and size, it was helpful to base the discussion on normed frequency counts rather than simply working with the raw totals. McEnery and Hardie (2012) explain that a normed frequency helps us know how many times a word occurs per X words of running texts which represents the base of normalization. Thus, to derive normed frequencies, the researcher took the raw frequency of a word in the corpus, divided it by the size of the corpus, and then multiplied the result by the base of normalization.

RESULT AND DISCUSSION

Results

Table 1 shows the percentage of the values used in different sections of the dissertations. It is found that low value epistemic modality is the most frequently used in all sections, with a total frequency of 468 (51,90%) . The median value is lay below the high value, with a total frequency of 354 (28,90%). The lowest frequency is the high value, with a total frequency of 88 (9,67%).

Table 1: Distribution of the values of epistemic modality

	Low F (%)	Median F (%)	High F (%)	Total F (%)
Findings	103 (47, 25%)	83 (38, 07%)	32 (14, 68%)	218 (100%)
Discussion	365 (52, 75%)	271 (39, 16%)	56 (8, 09%)	692 (100%)
Total	468 (51, 90%)	354 (28, 90%)	88 (9, 67%)	910 (100%)

DISCUSSION

Epistemic Modality Value

The finding that low value epistemic modality is the most frequently used in all sections indicates the writers is preferably express uncertainty than certainty in their arguments. This findings correlate to Vihla (1999) and Hyland's (1996) studies in modality and hedging which report that low value modality and median value modality predominate the use of modal expression. Hyland (1998) also reported that the frequency of hedges was approximately 2.5 times higher than boosters that entail high value epistemic modal expression.

The following examples shows statements with different level of epistemic value:

1. This shows that learners' views on learning May (low value) influence the way they learn in the classroom and their relationship with their teacher. (DR-6)
2. The feedback could (low value) be on the way the preservice teachers use English communicatively, promote fun and active learning, manage the classroom and assess the students' targeted competence. (DR-7)
3. Although assimilation to the DGC is possible (medium value), it only encompasses practices which are deemed non-religious observance such as address terms practice. (DD-8)
4. This indicated (medium value) that T1 had a strong will to practice English because in daily life students had interacted through Bahasa Indonesia. (DD-1)

From the statements above, it can be said that the modal expressions are used to imbue the writer's judgment on their findings. The writers convey their intention through linguistic values, which allow them to put uncertainty in their statements. A well-chosen modal representation is an effective way to separate and define the scope of the claim and the truth-value of the statement/claim. Research Dissertation writer will determine their level of certainty based on the validity and reliability of the data that can be used to support their claims. Writers' choice to employ low and median values will help writers not be too judgmental. In other words, it will make the proposition more tentative and cautious, especially in constructing new knowledge. It can be said that this is a strategy that the writers use deliberately avoiding fixed statements and opening for future discussion.

Another reason for the low and median value's predominance is possibly associated with applied linguistics' nature. Since applied linguistics mainly observes human behavior, the research data are relatively not as reliable as the discipline of hard science. Applied linguistics can be categorized as a soft science discipline. Vázquez & Giner (2008) believes that the difference in modal expression depends on the nature of the research data of the discipline. Different discipline has different social purposes of fulfilling. Therefore, pragmatical features may influence and shape the discourse in how applied linguistic writers propose their statements.

CONCLUSION

The investigation into the value of epistemic modality in applied linguistics dissertations written by Indonesian postgraduate students in English-native countries finds that the writers prefer to use low and median values in their proposition. This result implies that the writers will strategically employ low and median epistemic value to construct new knowledge and persuade readers through tentative claims in their writing. This is also used to avoid absolutizing their proposition and open future discussion.

The findings of epistemic modality in this research can be helpful for writers, especially students in applied linguistics. The epistemic expression can be a role model for academic writing course instructions. Not only for learning, but for academic writing is also an essential tool for disciplinary practices, which scholars need to master to succeed in their research publications and advance their careers. The use of epistemic modality can be seen as a semantic and pragmatic approach. Semantically, epistemic modality conveys writers' commitment to their statements, while pragmatically, epistemic modality entails interpersonal function. Writers need to understand and use epistemic modality in writing their writing. Further, it will help writers make more statements that are persuasive in their research and write more rhetorically.

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