

MOOD AND MODALITY OF INTERPERSONAL MEANING IN RESEARCH JOURNAL ARTICLES

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Abstract

This study aimed to analyze how mood and modality of interpersonal meaning are used in research journal articles published internationally. This study used qualitative approach by applying content analysis design. The data were taken from six research journal articles in three fields of study (Linguistic, English language teaching and Medical) written by English native and non-native writers. Theoretical sampling was applied to collect the number of research journal articles. The data of this study were one thousand nine hundred ninety two clauses analyzed using analysis table of mood consisting subject, finite and modal adjunct and modality consisting modalization and modulation. The findings of this study show the six research journal articles are informative and effectively use stated subject, past and present finite and possibility and usuality to deliver interpersonal meaning. These findings provide grammatical characteristics of mood and modality in international research journal articles.

Keywords: *Mood, modality, interpersonal meaning*

Abstrak

Penelitian ini bertujuan menganalisis bagaimana mood dan modality dari makna interpersonal digunakan dalam artikel penelitian yang diterbitkan secara internasional. Penelitian ini menggunakan pendekatan kualitatif dengan menggunakan analisis isi. Data penelitian ini diambil dari 6 artikel penelitian internasional di 3 bidang ilmu (Linguistik, Pengajaran Bahasa Inggris dan Kedokteran) yang ditulis oleh penutur asli bahasa Inggris dan bukan penutur asli. Sampling teoritis diterapkan untuk mengumpulkan jumlah artikel jurnal penelitian. Data penelitian ini terdiri dari seribu Sembilan ratus Sembilan puluh dua klausa yang dianalisis dengan menggunakan table analisis mood yang terdiri dari subject, finite dan modal adjunct dan table analisis modality yang terdiri dari modalisasi dan modulasi. Hasil temuan penelitian ini menunjukkan enam artikel jurnal penelitian bersifat informative dan secara efektif menggunakan subjek stated, finite past dan present dan kemungkinan dan usualitas dalam menyampaikan makna interpersonal. Penemuan penelitian ini memberikan ciri-ciri gramatika dari mood dan modalitas dalam artikel jurnal internasional.

Kata kunci: Mood, modalitas, makna interpersonal

Introduction

A language has a central role in human life. It is a means of communication. Language is functioned to build and maintain social relationship between writers and readers (Halliday and Matthiessen, 2004). This function can be seen in mood and Modality structures as the central of inter-personal meaning. In other word, mood and Modality carries interpersonal meaning. The structures of mood and Modality are found in form of clauses.

The reason of this study conducted is to find out how mood and modality of interpersonal meaning are used in clauses of international research journal article. The findings of this study give contribution to research report writing using mood and modality to build and maintain social relationship between writers and the readers of research articles. The findings help students in writing clauses of research journal articles. Every student

must write research report at the end of study program. The way for students or the other writers to write needs a different approach (Martin and Veal, 1998). These study findings also help the other researchers in different studies write their research journal articles.

This study analyzed the elements of mood: subject, finite, and modal adjunct (Halliday and Matthiessen, 2004) and martin et. al. (2011) and modality's elements: modalization and modulation (Halliday and Matthiessen, 2004) and martin et. al. (2011). Each element of the mood is subdivided. These details differentiate this study from the other studies. Meanwhile a similar study conducted by Mirahayu (2013) conducted a research of strategy of research article writing in English: structural and lexical characteristics of introduction as part of research article. She reveals that research articles written by native English speaker are conventionally

organized and structured. The implication of her finding is that non-native English writers need to be aware of writing research articles in English.

Ayoola (2013) conducted an interpersonal metafunction analysis of some selected political advertisements in some Nigerian newspapers. His analysis used mood consisting of subject and finite. The subject is pronoun and the finite is primary tense. He used modality of possibility, obligation, and inclination. Yuliati (2013) also studied mood and modality of interpersonal meaning. She used Susan Eggins' mood and modality of interpersonal meaning. Feng and Liu (2010) also used the same mood and modality as Ayola used. Fikriet. al. (2014) used mood structure and inclination in their study. Qun (2010) conducted a study of modality and generic features in Chinese EFL writings and Zarina (2013) conducted studies of modality of newspaper's articles. Araghi and Shayegh (2011) studied interpersonal metafunction of gender talk in ELT classrooms using mood and modality but the analyzed mood element, subject, refers to nominal group. And the finite excluded modal adjunct.

Another reason of conducting this study is the data. The data were clauses from international research journal articles. It has not been found yet that how mood and modality of interpersonal meaning are used in the clauses of research journal articles and Mirahayu (2013) only analyze introduction part of research articles. In Qun's study, modality is analyzed in academic papers as Chinese EFL writings showing consultative tendencies and analytical with the use of "can" and "may". But his study did not state what kind of academic paper and what parts of academic paper are analyzed. Zarina's study of modality uses newspaper articles about the Scottish Ship RMS Queen Elizabeth as data. Ayoola (2013) got data from some kinds of clauses in the presidential election advertisements. Yuliati (2013) used teacher-student verbal interaction between teacher and students in senior high school 4 class vii in Semarang-Indonesia as the source of research data. The data of Feng and Liu (2010) study are Obama speech. Fikriet. al. (2014) used Teacher talk in EFL classroom as data of their study. Adejare (2013) studied the manifestation of mood and modality in texts of lessons recorded in school in Lagos. Ye (2010) analyzed the interpersonal meaning of Barrack Obama's victory's speech. Araghi and Shayegh (2011) studied interpersonal metafunction of gender talk in ELT classrooms.

In this study, research journal articles are chosen because the data is factual. They are based on the empirical study (Martin, 1992: 562-563). Research journal articles are rich in meaning. The next reason of choosing research journal article is the text is written grammatically correct. Wiratno

(2012) stated that if the clauses are written in non-grammatical clauses, readers will have difficulty in understanding the meaning delivered.

The articles of international journals are written by native English speakers and non-native in three different studies. The studies are in medical as natural science, linguistics and English language teaching as social science. Two articles of each study are analyzed. Halliday's analysis tables of clause as exchange are used in this study.

Initially the data were obtained from six articles of five studies (English language teaching, Linguistics, Economics, Information technology and Medical) but if the article have been analyzed and found the pattern (mood and modality of interpersonal meaning) and there is no another pattern, the articles will be reduced. The parts of articles: introduction, result and discussion, and conclusion and suggestions are analyzed. They are selected for a reason that those parts consist of most writers' thought.

Research Questions

The question of this study is how are mood and modality of interpersonal meaning used in research journal articles? From this question, this study investigates two areas of a clause as exchange. The questions are:

1. How are mood and modality of interpersonal meaning in terms of declarative, interrogative, and imperative used in research journal articles?
2. How are mood and modality of interpersonal meaning in terms of modalization and modulation used in research journal articles?

The Purposes of the Study

This study aims to find out how mood and modality of interpersonal meaning are used in research journal articles. Based on this purpose, two sub-purposes are developed. They are: 1) To find out mood and modality of interpersonal meaning in terms of declarative, interrogative, and imperative in research journal articles; 2) To find out mood and modality of interpersonal meaning in terms of modalization and modulation in research journal articles.

This study has two significances both for English linguistics and English Learning. For English linguistics, the findings give an overview on the application of systemic functional linguistics in interpersonal meaning and improve how to use mood and modality in writing research journal articles. The findings also reveal how to maintain personal and social relationship with readers through interpersonal meaning use in Mood and Modality. It reveals either finite or nonfinite is usually used in mood and what modality can be used and cannot be

in writing research journal articles. These study findings, at the end, results grammatical characteristics in writing research journal articles. These add more theories of mood and modality of interpersonal meaning as new references of what to and how to use them in clauses in writing research reports. These uncover the requirements of research journal article writing in term of mood and modality structures which enriches some previous inventions and shows the next path to be researched.

In English learning, the findings are supposed to help students or researchers in learning more about mood and modality of interpersonal meaning in writing research journal articles. Books of academic writing have not explored to this point. The articles of different studies enrich the findings. Research journal articles of natural and social sciences also enrich the findings to see either they are the same or not and can be used both students of social studies and students of natural science. The English native and non-English native writers add abundant findings to view the differences and similarities in using mood and modality of interpersonal meaning in writing research journal articles.

Systemic Functional Linguistics

Systemic Functional Linguistics (SFL) was initially invented by Halliday and has been developed by some linguists. Systemic functional linguistic is used to analyze text based on the function not structure in formal grammar. Halliday and Matthiessen (2004: 29) stated that language functions to make sense of our experience and act out our social relationship. These functions are called metafunction. Halliday (1994:35) and (Halliday and Matthiessen, 2004: 60) argued that all language have three kinds of semantic components called metafunctions that can be seen in table 1.

Table 1
Metafunctions and their reflexes in the grammar
(Halliday and Matthiessen, 2004: 61)

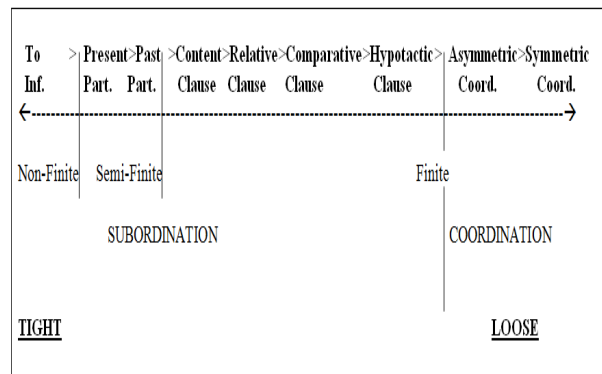
Metafunction (technical name)	Definition (kind of meaning)	Corresponding status in clause
Experiential	construing a model of experience	clause as representation
Interpersonal	enacting social relationship	clause as exchange
Textual	creating relevance to context	clause as message
Logical	constructing logical relations	

In table 1, experiential and logical metafunction are combined into ideational metafunction.

Ideational metafunction has semantic meaning for construing experience. It is used to name things and can be found in clauses as representation. The second function is Interpersonal metafunction for enacting personal and social relationship between writers and readers or between speakers and listeners. This function can be found in clauses as exchange. Interpersonal metafunction will be analyzed in this study in terms of mood and modality. And the last is textual meaning that is the combination of the ideational and interpersonal meaning that comes in coherent and can be found in clauses as message.

Clause is the grammatical form used in this study. (Halliday and Matthiessen, 2004: 10) stated that the clause is the central meaning processing unit in the lexicogrammar. A clause has its three principle systems and this study use the interpersonal system. Clause has nine types based on its syntax hierarchy, (Green, 2012). These types will be used to synthesize clauses from the selected research journal article. The type of clause is also taken from Quirk (1985: 1049-1068).

Table 2
Green's Type of clause and syntax hierarchie.



The other theories of metafunction are quoted from some Hallidayans. Drogba and Humprey (2005:1) stated that language is functional because it enables us to get things done. It helps us to achieve our social goals through spoken and written text. Bloor and Bloor (2004: 2) stated that in systemic functional linguistics, a language is a system of meanings. When people use a language, they construct meaning by some grammatical structures and choice of words. From the three theories above, it can be concluded that the term functional in systemic functional linguistic are quite similar.

Interpersonal Meaning

Interpersonal meaning is a function of language to build and maintain social relationship (Halliday and Matthiessen, 2004: 61). This meaning is located in mood and modality of clauses func-

tioned as exchange. Clause as exchange is a form of interaction between speaker and readers in interpersonal metafunction (Halliday&Hasan 1985:8) that can be seen in table 3. Drogba and Humprey (2005:1) said that interpersonal function is the way we use language to interact with others. The interaction involves roles (giving or demanding goods and services or information), relationship, and feeling. By functioning the three parts of interactions, writers will be able to build and maintain their relationship with readers. Bloor and bloor (2004:11) said that interpersonal meaning is when a language is used to enable us to participate in communicative acts with other people, to take roles and to express and to understand feeling, attitude, and judgment.

By viewing the four definitions of interpersonal meaning, it can be concluded that interpersonal meaning is the function of a language to build and maintain social relationship between writers and readers by expressing and understanding feeling, attitude and judgment in form of clause as an exchange. The proper mood and modality used in clauses produce an effective meaning delivery to readers. As a reminder, mood and modality are two of four forms of interpersonal resources (Drogba and Humprey, 2005:79) to express meaning.

Table 3
Giving or demanding, goods & services or information (Halliday and Matthiessen, 2004: 61)

Role in exchange	Commodity exchange	
	(a) Goods & services	(b) Information
(i) Giving	Offer' Would you like this teapot?	Statement' He's giving her the teapot
(ii) Demanding	Command' Give me that teapot	Question' What is he giving her?

This table shows a clause as an exchange because of its role in giving and demanding. Halliday and Matthiessen (2004: 61) call these functions as speech functions as basic line for mood and modality structure to build and maintain interpersonal relationship used in this study.

Mood

Mood is the components that get bandied back and forth (Egins, 2004:151). Martin et. al. (2011) stated that mood is the grammatical resource for realizing an interactive move in dialogue. Halliday and Matthiessen (2004:111) said that mood as a component of clause tossed back and forth in a series of rhetorical exchange. From the word bandied or tossed back and forth, it can be defined that mood is the central meaning of a clause as exchange fragmented into Mood and Residue. Mood is analyzed into Subject, Finite and modal adjunct. Residue consists of Predicator, Complement, and Adjunct. Predicator is nonfinite element. Complement is written in nominal group and meanwhile Adjunct is in the form of adverbial and prepositional group. Mood, a centre of interpersonal meaning, will be analyzed but residue is not.

Halliday and Matthiessen (2004:115) and Martin et. al. (2011:61-62) said that the significant elements are the order of subject and finite in the clauses. Mood of a clause can be found in declarative, interrogative, and imperative. Table 4 shows the types of mood. But interpersonal meaning cannot be related directly with lexicogrammar as Butt, et al (1995:75) in Ayoola (2013) argued that the relationship between lexicogrammar and interpersonal meaning is not always straightforward. The meaning can be interpreted by context. Drogba and Humprey (2005:53) give four structuring clauses of interaction. These clauses are the location of mood and possible modality that can be seen in table 3 below.

Table 4
Drogba and Humprey structuring clauses for interaction.

Ways of interacting	Type of clause	Example
To give information	Statement (declarative)	Sideways has great coffee.
To ask for information	Question (interrogative)	Who makes the best coffee around here?
To ask someone to do something		Could you make a cup of coffee?
To encourage someone to think about something		Could you make a cup of coffee?
To make an offer		Would you like a cup of coffee?
To get something done directly	Command (imperative)	Get me a coffee!
To express feelings in an emphatic way	exclamation	What great coffee!

Table 4 explains that types of clauses shows ways of interaction. The term of type of clause is the same as type of mood. In this study the term type of

mood is used. The interaction involves roles, relationship and feeling between writers and readers. Mood of the clauses cannot show the relationship

with interpersonal meaning because the interpretation depends on context. In this study, three mood types: declarative, interrogative, and imperative are used.

Mood has three constituents: subject, finite and modal adjunct (Martin et. al., 2011:62). The identification of subject can be achieved by the tag question and change the verb from plural to singular (Egins, 2004:151). Finite can be identified by interrogative. Adjunct has two sub elements: mood and comment adjunct. These three elements of mood are analyzed from clauses in the research journal articles. But this study will review the mood types before the elements.

Mood type

Declarative

Declarative in formal grammar is called positive sentence. In functional grammar, declarative is a mood type functioned as statement used to give information to readers. Halliday and Matthiessen (2014; 115) and Martin et. al. (2011:62-63) said that declarative is realized by the order of subject before finite. Halliday and Matthiessen (2004:131) stated that declaratives express writers’ angle. But not all declarative clauses have mood. This clause is a moodless clause (Bloor and Bloor, 2004:47). Past participle clause as a non-finite clause is one of the examples. They also said that declarative are divided into positive and negative polarity system. The below examples using a pattern from (Halliday and Matthiessen, 2004:115).The sentences are taken from a research journal article.

Sentences	Is	considered as a piece of interaction between speaker and listener
Subject	Finite	Residue
Mood		

The example shows the mood of the clause is positive declarative. The subject “sentence” comes before finite “is”. The speech function is giving a proposition or information.

This is an example of mood element in negative declarative (derived from Halliday and Matthiessen, 2004:160).

Vegetarian and vegan eating pattern	do not	necessarily lead to inadequate protein consumption,
Subject	Finite	Residue
Mood		

Finite “do not” indicates the declarative is negative. The readers also want to ensure readers that being vegetarian is still healthy.

Interrogative

In formal grammar, interrogative is mood type to make question. In functional grammar, interrogative is used to seek readers’s angle (Halliday and Matthiessen, 2004:131). But interrogative can be used to command called modulated interrogative. This mood type asks information and may be found inresearch text but may not askfor proposition. This structure of a clause can be seen in the example below. Drogba and Humprey (2005:79) and Halliday and Matthiessen, 2004:107) also supported that question in form of interrogative asks for information.

Are	there	any attitudes, in the visual and verbal display of the two print advertisements, which socially, which socially adn culturally form or create the image of sexists?
Finite	Subject	Residue
Mood		

The example shows that a mood type is yes/no interrogative ((Halliday and Matthiessen, 2004: 115)when finite “are” comes before subject “there”. The mood type is asking an answer as information.

There are some other kinds of interrogative as Halliday and matthiessen (2004:136) explained in mood as a system. The kind is WH-interrogative. To analyze the mood and modality, this study explains some WH- elements to which it conflated. The interrogatives are WH- element conflated with subject, Complement, Adjunct and WH-clause having questions related to the process. If there are interrogatives, the writers may not demand answers from readers but build interaction instead called modulated interrogative.

Imperative

Imperative are the same terms used both in formal grammar and functional grammar. Imperative is the third structure of a clause. Imperative, containing a command, is demanding readers to do or give something to writer or speaker. If declarative and interrogative are used to give and ask for proposition or information, imperative is used to ask for goods and services (Halliday and Matthiessen, 2004:107) that can be seen in the example below. For interaction, Drogba and Humprey, 2005:53) stated that imperative is used to get something done

directly. Examples of clauses are not taken from research article since it rarely appears.

Come	into my parlour	Will	You
Predicator	Adjunct	Finite	Subject
Residue		Mood tag	
Do	Take	Care	won't you
Finite	Predicator	Complement	Finite Subject
Mood	Residue		Mood tag

Let's	Go	Home	Shall	We
Subject	Predicator	complement	Finite	Subject
Mood	Residue		Mood tag	

Don't	You	Believe	It
Finite	Subject	Predicator	Complement
Mood	Residue		

These examples contain four different mood orders of imperative (Halliday and Matthiessen, 2004:140). In the first order, mood comes in the tag of the clause. Word “come” is not finite because there is no subject with it. The subject is in the mood tag. In the second order, word “do” is finite operator because it functions analogously (Halliday and Matthiessen, 2004:139). In the third order, “Let’s” is subject because let’s is let “I” and “you”. There is no finite in it. It can be seen from the answer. When imperative begin with “let’s”, the answer is yes, let’s! or no, let’s not! In the last order, word “don’t” is finite as in the second order, do or don’t function to finite operator in an indicative clause.

The three mood types above have their own speech functions such as declarative functioning as statement. But the speech functions of the three mood types have metaphorical realization as Martin et. al. (2011:68) and Halliday and Matthiessen (2004: 626-634) said. The metaphor is realized in mood and modality. The examples of mood metaphor are imperative that can be realized in question and possibility realized in declarative. Metaphor is not analyzed into the table but it is as interpersonal meaning interpretation.

Subject

In functional grammar, subject is viewed from its function. Halliday and Matthiessen (2004) used trinocular perspective in which subject is a nominal group, combine finite operator to form mood element in the clause and carries the modal responsibility that refers to stated, questioned, commanded, and offered. Martin et. al. (2011) gives a point of view that help the possible move in the three mood types by seeing the role the speaker takes up. Therefore subject that will be analyzed in

this study is that carries the modal responsibility. However this kind of subject is still problematic because its functional meaning is context-bound. It is not based normal norms of grammar. Therefore the analysis is descriptive not prescriptive.

Mood		Residue	
Subject	Finite	Modal adjunct	
The analysis of the data from this study	has	provided a rich background from which to make some useful conclusions about the kinds of talk	

The clause is taken from research journal article of English Language Teaching written by native speaker (Chappell:2014). The table is derived from Halliday and Matthiessen (2004). The subject states information because it is in declarative.

Finite

Finite as Martin et. al. (2011:62) explained makes a clause negotiable by coding it as positive or negative and by grounding it in term of time and modality. Halliday and Matthiessen (2004:115) stated that finite is a verbal group that functions to make proposition finite. It is tossed back and forth. Finite and subject are the two mood elements treated in this way. Finite consists of two main elements: primary tense and modality. Primary tense has past, present and future. Modality is divided in modality that contains finite and mood adjunct.

Halliday and Matthiessen (2004:116) explained finite has two operators. The first is temporal operator consisting of primary tense. Butt et. al. (2000) said primary tense is relative to now. The second is modality consisting of modalization (possibility and usuality) and modulation (obligation and inclination). Modality consists of modal operator such “can”. In this study, these two main elements will be used in analyzing finite in clauses of research journal articles. Non-finite element is added to the analysis table helping the analysis find the accurate number of finite in the clause overall. Non-finite element is taken from non-finite clauses that is past participle clause and semi-finite clauses that are to-infinitive clause and ing-clause.

Mood			Residue
Subject	Finite	Modal adjunct	
Falls	are		a common and serious complication after stroke, with up to 76 percent of people falling poststroke .

The clause is taken from research journal article of medical written by native speaker (schmid et al. :2013). The table is derived from Halliday and Matthiessen (2004:115). The finite of mood in clauses is present of primary tense.

Modal Adjunct

Modal adjunct as mood element is interpersonal meaning. Halliday and Matthiessen (2004) stated that modal adjunct will be analyzed is divided into mood adjunct (adverbial group) and comment adjunct (speech-functional tied to mood elements) in interpersonal meaning. The propositional belongs to residue or ideational. Martin et. al. (2011) explained that mood adjunct construes meanings most closely related to finite. Comment adjunct provides an attitude towards, the exchange itself.

The different line between mood adjunct and comment adjunct is not very clear (Halliday and Matthiessen, 2004). But there is a guideline to distinguish them. Mood adjunct has three elements: adverbs in temporality, modality and intensity. While only speech functional of comment adjunct is included in mood part. Its location is strongly initial or final. This guideline is used in analyzing modal adjunct in clauses of research journal article in this study.

Mood			Residue
Subject	inite	Modal adjunct	
he same form	erged	ften	merged into the verbal element of another to create the catenative construction.

The clause in the example is taken from research journal article of Linguistics written by native speaker (Green:2012). The table is derived from (Halliday and Matthiessen, 2004:125-132). The modal adjunct is mood adjunct because it is one of intensity of mood adjunct. It also takes place between subject “the same form” and finite “merged”.

Modality

Modality is the intermediate degrees between yes and no and between positive and negative poles (Halliday and Matthiessen, 2004). In systemic functional grammar, modality is from modal auxiliaries in formal grammar. Azar (1993) stated that modal auxiliaries express speakers’ attitudes or mood. The words attitudes and mood are related to the analysis of modality in this study. The term modality in this study is used in three sections; Finite; modal adjunct and modality itself. In finite and in modal adjunct, term of modality is written in

small letter-“modality”. Term of modality located in both finite and adjunct is written in initial capital letter “Modality”.

Drogba and Humprey (2005) said that modality express the degrees of definiteness: modalization (probability and usuality) and modulation (obligation and inclination). Modality also expresses strong, medium or weak positions or spaces between yes and no (Halliday and Matthiessen, 2004), (Eggin, 2004) and (Drogba and Humprey, 2005). They may express how probable and usual something is in giving and asking for information. Modality also may express the degree of obligation and inclination in giving and demanding something or someone to do something. Modality refers to degree of certainty and truth of statement in the world (Ayoola, 2013). The four degrees of definiteness are used to analyze the modality in clauses of the selected research journal articles.

Modalization

The space between yes and no has a different significance for proposition and proposal. In proposition, Modality refers to modalization. The term of modalization used by Halliday and Matthiessen (2004:147) and Eggin (2004:172) will be applied in this study. Modalization has two intermediates: probability (possible/ probable/ certainly) and usuality (sometimes/usually/always). Probability and usuality can be expressed in the same three ways: by a finite modal operator in the verbal group, by a modal adjunct, and by both together.

Example, probability construed by a finite operator, modal adjunct, and the combination of the two.

Consequential relationship with definite effect	Is	probably	seen	in the text of Marie France Bodyline advertisement
Subject	Finite	Modal Adjunct	Predicator	Adjunct

Consequential relationship with definite effect	Can	be	probably	seen	in the text of Marie France Bodyline advertisement
Subject	Possibility (Finite)		Modal Adjunct		Adjunct
		Predicator		Predicator	

Consequential relationship with definite effect	can	be seen	in the text of Marie France Bodyline advertisement
Subject	Possibility	Predicator	Adjunct

From the example, probability can be seen clearly functioned as a finite operator if it comes right after the subject. If the probability comes after a finite, it functions as a modal adjunct. The probability functions as a finite operator and modal adjunct if the position of them is like in the third order of sample. The position of modality (probability) in the clause determines its roles.

Example, usuality can be expressed in the same way as probability expressed in above example.

It	Always	become	Functional
Subject	Usuality (Finite)	predicator	Adjunct

Language	Is	always	functional	in	this
Subject	Finite	Modal Adjunct	Adjunct		world

It	'll	pro bab ly	be	Jo hn	h e	usu ally	sit	There
subj ect	Fini te	Mo dal adj unc t	predi cator	Subject	Fini te (fini te)	predi cator	Adju nct	

The examples show that usuality comes right after subject functioned as finite operator. Usuality is placed right after finite functioned as modal adjunct. And usuality functions both as finite operator and modal adjunct if its position is like in the third order.

Modulation

The term of modulation is used by Halliday and Matthiessen (2004) and Eggins (2004). And this study uses the same term. Modulation has two intermediates: obligation (command) and inclination (offer). There is an additional of inclination according to Martin et. al. (2011) stated that modulation consists of obligation and readiness. Readiness consists of inclination and ability. However this study uses Halliday’s Modality. Obligation and inclination can be expressed by two ways: by a finite operator and by an expansion of the predicator. The example below illustrates one of modulation-command.

It	Should	enrich	the findings
Subject	Obligation (finite)	Predicator	Complement

It	's	required	to	the
Subj ect	Fini te	Obligation (an expansion of predicator)	predica tor	comple ment

The example shows that obligation can be expressed by finite operator if the obligation is replaced right after the subject as in the first order of the table. Obligation can be expressed also by an expansion of predicator if it takes place between finite operator and before predicator.

The examples below are Modality as finite and as modal adjunct. As mentioned, modality can be in form of finite and modal adjunct.

Mood			Residue
Subject	Finite	Modal adjunct	
acute exacerbations	Lead	usually	For patients with COPD, ; lead to troublesome increases in respiratory symptoms,

Mood			Residue
Subject	Finite	Modal adjunct	
The point estimates from our analyses	should		be more precise because of the greater number of the included studies.

The clauses of the examples are taken from research journal article of Medical written by non-native speaker (Zhong). The table is derived from Halliday and Matthiessen (2004). In the first example, “usually” is usuality of modalization in form of modal adjunct. In the second example, “should” is obligation of modulation in form of finite.

Research Journal Article

Research journal article in this study is a kind of scientific text. The Journals as source of data are leveled internationally. Research is started by identifying a problem and research is done to answer the problem. Cresswell (2008) said that research is a process of steps used to collect and analyze information to increase understanding of an issue. The process of steps are generally divided by Cresswell (2008) into three steps that are pose a question, collect data to answer the question, and present an answer to the question. The processes are derived into more systematic steps. Mcmillan, J. H. and Wergin, J. F. (2010) stated that research is systematic, rigorous and empirical. Systematic relies on careful procedures in collecting, analyzing data and interpreting the data. Rigorous means research is designed to reduce and control bias. And empirical

relies on tangible data in form of numbers or in form of text.

Article is a research report. The article is based on the fact and data found in the text in the form of clauses. Martin et. al. (1985) states that a scientific text is factual because it is written based on the empirical fact. Writers use theories to write articles and data gained from their study are written called article or research report. The report is submitted to a journal as a home or a compiling book.

Hartley (2008) stated that research journal article is precise, impersonal, and objective. It typically uses the third person, the passive tense, complex terminology, and various footnoting and referencing system. Wiratno (2012) stated scientific text is precise containing more lexical words (nouns, verb, adjective, and adverb) than structural words (conjunction, definite and indefinite article, preposition, etc.). Precise means representative in presenting their findings to readers.

Scientific text is simple. Writers write their ideas and findings in simple clauses to make readers understand the text easily. Simple clause consists of one action (Wiratno, 2012). Halliday's (1998) cited in Wiratno (2012) stated that research journal article consists of simple clauses as a favorite clause type. It is simple but the most critical in semantic. And Wiratno (2012) said that Research journal articles are written in more declarative clauses because speaker only wants to inform his/her ideas and findings to readers and do not ask for information. However meaning of interpersonal is still being maintained by the structure of the mood and modality.

Relevant Studies

There are some relevant studies related to mood and modality of interpersonal meaning but they are different from the data and mood and modality elements. Mirahayu (2013) conducted a research on writing strategy of research report examining 20 internationally published research articles in introduction part. She said Indonesian researchers are less participation to publish their research articles in international journals. One of the reasons is their English proficiency.

Ayoola (2003) did interpersonal meaning analysis of selected political advertisements in some Nigerian newspapers. He reveals that interpersonal meaning of a structure does not always correspond with its lexico-grammar analysis as the political advertisers use various mood types to interact, negotiate, establish and maintain good relations with and as well change the behavior of the readers. He concludes that the differences in the distribution of mood types are determined by contextual factors.

Yuliati (2013) did a study of mood and modality of interpersonal meaning negotiation in teachers-students verbal interactions. She reveals that teachers at the chosen school mostly use command showing the teachers' dominant. Even though the teacher uses declaratives and interrogatives in communication with the students, the students do not elaborate well in their responses. The other difference from Yuliati is that she uses Susan Eggins's analysis of mood and modality. Meanwhile, this study uses the analysis of Halliday and Matthiessen (2004). The conclusion of her study is similar to Ayoola that is lexico-grammar cannot be taken for granted.

Rahma (2012) conducted an analysis of interpersonal meaning on teacher's scaffolding talks containing 47 declarative clauses of 95 clauses. The finding shows teacher gave information to her students in guiding them to understand the lessons she teaches. Interpersonal metafunction analysis of Barack Obama's victory speech is conducted by Ye (2010). Ye revealed three findings: Obama used declarative clauses to convey information and convince audience with positive fact, modal verbal operator with high commitment to show the addresser determination to finish task and subjects of pronoun we and you to shorten distance between the addresser and the audience.

Kacmarova (2011) found that modality adverbials function as modality markers communicating confidence in the truth value of the proposition. A study of modality of newspaper articles about the Scottish ship RMS Queen Elizabeth conducted by Zarina (2013) found that all clauses are declarative suggesting informative nature of the text. She also found numerous modal verbs present their subjective authorial positioning in the journalistic texts.

Qun (2010) from Graduate University of Chinese Academy of Sciences conducted a study of modality and generic features in Chinese EFL writings. The similarity between Qun's study and this study is the data is based on academic writing. But Qun did not mention what kinds and parts of academic papers analyzed. Qun also employed newspaper editorials. The study revealed that academic papers show more consultative tendencies and analytical features of "can" and "may". High modality value is employed in newspaper editorials to present de facto judgment over issues. Qun also found that argumentative essay written by Chinese students tends to follow editorial features but have a negative transfer in the use of "should" and "can".

Fikriet. al. (2014) conducted a study of mood structure of teacher talk in EFL classroom. They found that there are some differences between male and female teacher talk in selecting mood

system to express interpersonal meaning to students. Cultural and social factors are believed as the contribution to the differences. Adejare (2013) studied the manifestation of mood and modality in texts. She found finite verbal groups recurred more than modality. “will” and “can” are the most recurring modals in her study. Feng and Liu (2010) in their study of interpersonal meaning in public speeches-a case study of Obama’s Speech found that Obama use declarative to deliver information and frequently use pronoun “we” to establish close relationship with the audiences.

Araghi and Shayegh (2011) studied interpersonal metafunction of gender talk in ELT classrooms using mood and modality but the analyzed mood element, subject, refers to nominal group. And the finite excluded modal adjunct. The objective of their study is to determine different clausal structures (Declaratives, Integratives, Imperatives and Exclamatives) used by interlocutors with different genders using Azeri as their mother tongue, Farsi (Persian) and English as their second and foreign languages respectively. The findings of their study are both genders dominantly use declarative type mood, third person as the subject and the finite is primary tense in form of simple present tense.

Method and Research Procedures

This study uses qualitative approach because the result of data analysis is interpretation from mood and modality of interpersonal meaning. The data is in form of clauses which are separated based on mood structure and modality structure. The clauses are fragmented from 6 articles of three different studies and they are in a large amount. As Creswell (2008) said the data of qualitative is consisting of large words. The design used in this study is content analysis because the data are large texts in form of clauses of research journal articles. The data will be analyzed and interpreted in descriptive explanation. Iskandar (2013) quoted Miller and Brewer (2003) said that content analysis is describing process and text analysis in result of qualitative judgments to words used. The data are analyzed by using table analysis in instrument to get the mood and modality of interpersonal meaning structures. Then Statistic calculation is also used.

Singh (2006) as quated in Iskandar (2013) said that content analysis is related to systemic analysis to a record or document as data source in form of Published text. Sing strengthens the use of content analysis because of the data in a systemic way and objective. Krippendorff (2004) defines content analysis as a research technique for making replicable and valid inferences from data to their context. The result of this study is valid if the similar studies use the same design eventhough in different

place, time, and research journal articles. Halliday’s mood and modality table analysis is used to ensure the reliable result in different time and circumstance.

The research procedures in conducting this study are: 1, Collecting international English research journal articles; 2, Studying the relevant research articles; 3, Studying the relevant literature to determine the criteria as the bases to analyze the data; 4, Analyzing the data; 5, Reducing the data; 6, Reanalyzing the data; 7, Presenting the data and concluding the findings.

The data of this study are clauses fragmented from the research journal articles. Then the clauses are fragmented into types of clauses structure. Then each clause is analyzed by using mood and modality tables that show interpersonal meaning. The research journal articles are published in international journals and written by English native speakers and non-English native speakers. There are two articles in each study. The studies are Medical, language, English education. The articles are collected by using theoretical sampling that is ending the data collecting if new pattern of mood and modality is not found. This procedure is explained by Creswell (2008:217) using terms of confirming and disconfirming sampling. This technic uses individual or object as samples to confirm or disconfirm the previous findings.

The data analysis procedures in this study are:

1. Creating coding frame. The coding frame is based on mood and modality. Before these frames created, there is a primary table that is mood types: declarative, interrogative and imperative. The coding frame is presented in tables 5.

- a. Declarative, interrogative and imperative.

This analysis table of mood types is originally taken form Halliday and Matthiessen (2004) for positive declarative and interrogative, Halliday and Matthiessen (2004) for negative declarative and Halliday and Matthiessen (2004) for imperative. The table is modified based on the needs in analysis to get accurate result of identifying the types of mood.

Table 5
Analysis table of mood types

Number of Clauses	Number of Sentences	Part of Clause	Declarative		Interrogative	Imperative	Mood			Residue
			Positive	Negative			Subject	Finite	Modal adjunct	

b. Mood

In mood, there are four tables of analysis. Each table is used to analyze one element of mood as explained below.

– Subject

The analysis table below is originally taken from Halliday and Matthiessen (2004). The kinds of subject are only described but not coded in the analysis table. Therefore this table is modified to find out kinds of subject in the clause: stated, questioned, commanded and offered.

Table 6
Analysis table of Subject

Number of Clauses	Number of Sentences	Clause	Part of Article	Subject				Mood			Residue
				Stated	Questioned	Commanded	Offered	Subject	Finite	Modal adjunct	

– Finite

The analysis table below is originally taken from Halliday and Matthiessen (2004). This table is modified to find out kinds of finite in the clause. Finite is coded in details: primary tense (past, present and future), modality and non-finite.

Table 7
Analysis table of finite

Number of Clause	Number of Sentences	Clause	Part of Article	Primary Tense			Modality	Non Finite	Mood			Residue
				Past	Present	Future			Subject	Finite	Modal adjunct	

– Modal Adjunct

The modified table below is originally taken from Halliday and Matthiessen (2004:117). The table is modified to analyze kinds of modal adjunct in the fragmented clauses.

Table 8
Analysis table of modal adjunct

Number of Clause	Number of Sentences	Clause	Part of Article	Modal Adjunct		Mood			Residue
				Mood Adjunct	Comment Adjunct	Subject	Finite	Modal adjunct	

c. Modality

The table below shows how modality is coded in detail. The table is derived from Halliday and Matthiessen (2004). The modification of the table is intended to find out the elements of modality: modalization (possibility and usuality) and modulation (obligation and inclination).

Table 9
Analysis table of modality

Part of Article	Modalization		Modulation		Mood			Residue
	Possibility	Usuality	Obligation	Inclination	Subject	Finite	Modal adjunct	

- Analyzing and classifying mood and modality elements into their parts in the tables.
- Checking and rechecking and reclassifying with interraters.
- Presenting the findings.
- Concluding the mood of interpersonal meaning in term of declarative, interrogative, and imperative.
- Concluding the modality of interpersonal meaning in term of modalization and modulation.

Findings and Discussion

Mood of Interpersonal Meaning

The analysis of mood relies on clauses as the central processing units in the lexicogrammar (Halliday and Matthiessen, 2014). Table 10 shows the average number of clauses of the six articles analyzed giving a picture of mood type used in

research journal articles. This finding helps writer or researchers write clauses in their research report.

Table 10
The Average number of Clause in parts of articles

Articles	Structure of Article			Total
	Introduction	Findings and Discussion	Conclusion	
ELT Native	24	276	35	335
ELT Nonnative	70	438	47	555
Linguistics Native	19	356	18	393
Linguistics Non-native	77	186	56	319
Medical Native	33	130	14	177
Medical Non-native	35	174	4	213
Subtotal	258	1560	174	1992
Average	43	260	29	

The clauses above were classified into declarative, interrogative and imperative. These classifications are called mood types (Martin et. al. 2011) and (Halliday and Matthiessen, 2014). Table 11 shows the mood types found in clauses analyzed. Declarative consists of two polarities: positive and negative. Polarity is caused by the presence of subject and finite in mood. Mood type influences the mood meaning. Therefore the mood types are analyzed in this study to find their number in the article. Seeing the number of these four perspectives enriches the findings.

Table 11
The Number of Clause in Declarative-Interrogative-Imperative

Articles	Declarative		Interrogative	Imperative	Total
	Positive	Negative			
ELT Native	329	2	1	3	335
ELT Non-native	534	20	0	1	555
Linguistics Native	371	22	0	0	393
Linguistics Non-native	306	13	0	0	319
Medical Native	174	3	0	0	177
Medical Non-native	199	14	0	0	213
Total	1913	74	1	4	1992
Percentage	99.75%		0.05%	0.20%	

This finding is supported by a study of characteristics of scientific Bahasa Indonesia text done by Wiratno (2012). The finding of his study stated that scientific text, research journal article is one of scientific text, is monolog that has a lot of indicative declarative clauses. It means the mood type or clauses in research article mainly give

information as a role of exchange to the readers. Only the writer of ELT (English language teaching) native asks for information. And this interrogative can be categorized as mood metaphor (Martin et. al., 2011) since the writer does not need the information from readers in written text. The number of Imperative clause also shows writer rarely demand goods or services from readers. They tend to direct the readers what to do or read.

In the next turn we can see what mood types the writers use in each part of article. In introduction, there are two hundred fifty seven declarative clauses, four negative declarative, one interrogative and no imperative clauses. it can be interpreted that introduction of research journal articles uses most declarative compared to the other two mood types. Declarative consists of one thousand five hundred sixty clauses, zero interrogative and 4 imperative in findings and discussion part. The big number of declarative in finding and discussion shows that more information is delivered by writer. In conclusion, it is even found that the mood type is one hundred percent declarative. There is no interrogative and imperative. the role of exchange is fully giving information. It is in line that conclusion is considered as writers' opinion based on the findings and discussion.

The findings of this analysis have another different angle that is seeing the mood type formation in three different study areas. The mood type in these three different subjects is similar to the mood type in the three parts of the articles above. Only English language teaching articles have interrogative and imperative. One clause and four clauses are in those mood types respectively. And the writers do not demand information and service in Linguistics and Medical study areas. ELT has eight hundred eighty five declarative clauses of eight hundred ninety clauses. Linguistics and Medical completely has one hundred percent declarative. This table gives an illustration that giving information in form of declarative is almost applied in the medical, ELT and linguistics.

If we see from the other perspective that is native or non-native speakers, we see the same dominance of declarative. Native speakers use nine hundred five declarative, one interrogative and three imperative in these three subjects. They write the clauses functioned as information givers that are declarative in form of English functional grammar. These findings are also supported by Zarina (2013) who revealed that informative text such English newspaper articles mainly contains declarative. Her study findings show that all clauses are declarative mood type.

To compare the mood type written by native, we see non-native speakers' clauses in their

research journal articles. It is obvious that non-native speakers use declarative in their research report. The mood type has one thousand eighty six of one thousand eighty seven clauses combined from three subjects. There is only one clause in imperative is used in non-native speaker articles. The statistic report also shows that declarative is mainly used in research report written by non-native speakers. The similar findings between native and non-native speakers reveal that declarative mood type is mostly used in writing research reports. This finding is similar to Fikriet. al.'s (2014) study of mood structure analysis of teacher talk in EFL classroom that found the most dominant mood type in their analyzed data is declarative either in male or female teachers.

The findings are also supported by a study conducted by Rahmah (2012) founding fifty percent of the clauses are declarative in teachers' scaffolding talks. This mood type is also the most dominant even in teachers' scaffolding talks is intended to give direction. Adejare (2013) in her study of the manifestation of mood and modality in text found that declarative is seventy six of the clauses as data. She used orthographically transcribing Christian Religion knowledge, Geography, physics, and chemistry lessons recorded in school in Lagos. These findings influence the mood elements because the types are realized by the position of subject and finite. Below is the example of declarative, interrogative and imperative.

Number of Clauses	Number of Sentences	Clause	Part of Article	Declarative		Interrogative	Imperative	Mood			Residue	Article
				Positive	Negative			Subject	Finite	Modal		
1	1	Dogme ELT (Meddings and Thornbury 2009) is a movement that began at the turn of the millennium in response to the perceived misgivings of teachers?	Introduction	1				Dogme ELT (Meddings and Thornbury 2009)	is		is a movement that began at the turn of the millennium in response to the perceived misgivings of teachers? language lessons relying on materials rather than	ELT/Native
82	31	with those of Nelson, et al. (2002), Wannanuk (2008), Alami and Naeimi (2011), Abdul Sattar, et al. (2011), Umaru (2011) and Fama and Wu (2012).	Findings	1				These findings	are		Nelson, et al. (2002), Wannanuk (2008), Alami and Naeimi (2011), Abdul Sattar, et al. (2011), Umaru (2011) and Fama and Wu (2012).	Linguistics
1	1	Falls are a common and serious complication after stroke, with up to 76 percent of people falling poststroke [1-3].	Introduction	1				Falls	are		a common and serious complication after stroke, with up to 76 percent of people falling poststroke [1-3].	Medical/ Native
212	99	therapy A was of more benefit to patients with acute exacerbations of	Conclusion	1				therapy A	was		of more benefit to patients with acute exacerbations of COPD.	Medical
129	40	consider the following excerpt (Excerpt 2) from a discussion between two students after listening to an extract from a radio play	Discussion				1	(you)			consider the following excerpt (Excerpt 2) from a discussion between two students after listening to an extract from a radio play	Non-native

Subject

After delivering the findings of mood types, this study reveals the first mood element characteristics in research journal articles. The element is subject. This mood element is categorized based on its roles in clause as exchange. Role carries meaning or function of subject in mood. The roles are interconnected to the three mood types in commodity exchange as explained in the beginning of literature review. Their roles are stated, questioned, commanded and offered. It is clear that Offered is giving good and services. Table 12.1 presents these roles of subject for all articles.

Table 12
The Roles of Subjects in clause as exchange in all articles

Articles	Subject				Total	number of Clause
	Stated	Questioned	Commanded	Offered		
ELT Native	321	1	4	3	329	335
ELT Non-native	550	0	1	1	552	555
Linguistics Native	384	0	0	0	384	393
Linguistics Non-native	318	0	0	0	318	319
Medical Native	176	0	0	0	176	177
Medical Non-native	212	0	0	0	212	213
Total	1961	1	5	4	1971	1992
Percentage to Subject	99.49%	0.05%	0.25%	0.20%		
Percentage to Clause	98.44%	0.05%	0.25%	0.20%	98.95%	

Table 12 presents the study reveals that the roles of subject are in line with the mood types. The dominant number of stated is influenced by the

number of mood type of declarative. The findings show that mood of interpersonal meaning in the research articles are dominated by stated subject as

one of mood elements. The subjects state or give the information in the clauses used in the research journal articles.

The subject's roles further are seen from each part of research journal articles. The first part, introduction presents subject role as stated is two hundred forty five of two hundred fifty six clauses in introduction. One clause is questioned. It questioned the readers to give information. But it is considered as subject metaphor since its existence is not asking for information. This happens because research journal article is a kind of monologue text. Commanded and offered subjects are not found in this study. This finding shows that the writers use stated effectively to deliver information. They maintain the interpersonal meaning to readers applying stated. .

Stated is still mostly functioned in findings and discussion. This part has one thousand five hundred thirty four states of one thousand five hundred forty two subjects. There is no a single subject functioned as questioned. Only four subjects are functioned as commanded. And three are functioned as offered. This finding shows that part of article, findings and discussion, is a place for writers to present their findings and opinions using stated as mood element of interpersonal meaning. The readers are informed and explained well with the detailed information.

In conclusion, stated consists of one hundred seventy three in this part. Questioned and commanded are not found here. Offered is only one. This shows that subject in the clauses of conclusion are similar dominant to the other two parts above. As mentioned, stated is mainly giving or stating information to the readers. Conclusion part is also a part mostly used by writers to conclude their findings. The writers use stated of interpersonal meaning effectively to inform the readers what to conclude.

We will subject's roles in each subject. English language teaching has eight hundred seventy one stated subjects of eight hundred eighty one subjects. Only one subject is questioned. Both commanded and offered subjects are four. The dominance of stated is at least reduced by the other three subjects even though their number is not significant. In this study area, four meanings of subject are found and the finding here is different from the findings in Linguistics and Medical. The findings continuously show that stated of interpersonal meaning effectively delivers the information to readers in this study area.

The role of subjects in clause as exchange in Linguistics shows stated subject is completely used. The other subjects are not used. Seven hundred two states of seven hundreds two subjects show that the writers of this subject tend to write clauses having stated subjects that are responsible for modals. The

stated as mood of interpersonal meaning is successfully maintained by the writers in this study area.

In the last study area, medical, stated is fully functioned in the clauses. The subject is three hundred eighty eight in three hundred ninety clauses. This number shows that there are two clauses do not have subjects because they are non-finite clauses which have no subjects. Questioned, commanded and offered are not used in this study area. The writers of this study area also use stated of interpersonal meaning successfully in delivering information to the readers.

The next finding is the portion of subject's roles in native and non-native speakers. Stated in native articles is eight hundred eighty one of eight hundred eighty nine subjects overall. Meanwhile questioned is only one. Commanded and offered are three and three respectively. In non-native speakers, stated dominates ninety nine point eighty two percent from the rest three roles. Both native and non-native speakers use subjects as stated in their clauses to exchange information. They effectively give the information to readers. It can be inferred that there is no significant difference subject's roles in native and non-native speakers' research journal articles.

This finding does not show the influence in speakers' background in term of sociolinguistics for instance. The all findings of subject as mood element reflect kinds of roles in interpersonal meaning. Below are the examples of the meanings of subjects.

Number of Clauses	Number of Sentences	Clause	Part of Article	Subject				Mood			Residue	Article
				Stated	Questioned	Commanded	Offered	Subject	Finite	Modal		
11	7	They study the same subjects in the first year of senior	introduction	1				They	study		study the same subjects in the first year of senior	ELT Non-native
20	7	then what is it exactly that is (see table 2).	introduction		1			what	is		it exactly that is being	ELT Native
264	91	and the teacher offered some assistance	Findings	1		1		(you)			(see table 2)	ELT Non-native
147	55	and the teacher offered some assistance	Findings				1	the teacher	offered		offered some assistance	ELT Non-native
164	59	People with chronic stroke commonly sustain a fall	Conclusion	1				People with chronic stroke	sustain	commonly	sustain a fall	Medical Native

Finite

The second mood element is finite. Finite is closely tied to subject. These two are tossed back and forth. Table 13 presents the characteristics of research journal article in term of finite.

Table 13 presents that primary tense consisting past, present and future has one thousand three hundred fifteen finites in one thousand nine

hundred ninety two clauses. The modality categorized in finite is the modality counted in discussion. The findings show that past finite is used effectively to deliver the information happened in

the past. Present as mood of interpersonal meaning is used to tell what the writers find. Both of the finite are supported by non-finite to build the interpersonal meaning of a language to readers.

Table 13
Finite, Non-finite and modality in all articles.

Articles	Primary Tense			Modality	Non Finite	Number of Clauses
	Past	Present	Future			
ELT Native	15	172	2	35	125	335
ELT Non-native	233	116	1	81	161	555
Linguistics Native	178	112	2	70	70	393
Linguistics Non-native	65	155	2	30	71	319
Medical Native	69	38	0	23	54	177
Medical Non-native	105	50	0	26	36	213
Total	665	643	7	265	517	1992
Percentage	33.38%	32.28%	0.35%	13.30%	25.95%	
	1315					
Percentage	66.01%			13.30%	25.95%	

In this study, non-finite is included in table of finite to give an overview of how many finite is used. The finite itself consists of two main elements that is primary tense. The second main element of finite is modality. The modality is not broken down into four. Modality finite has small number that is two hundred sixty five or only thirteen point thirty percent. The finding of modality shows that the definiteness still happens in clauses of research journal articles. Modality is used when yes or no is not confirmed. The writers need modality in their clauses to inform “something that can be argued” to readers. Modality finite is successfully used to maintain the relationship with the readers. These findings are similar to Aderaje’s findings (2013) revealing that primary tense finite is dominant and modality finite is only thirteen percent in her study.

To see finite portion in each part of the article, this study presents the spreading finite in the elements mentioned above. In introduction, Primary tense has one hundred seventy six finite in two hundred fifty eight clauses. From the number, past has thirty four. Present is the biggest that is one hundred forty two. There is no future finite in introduction. Modality of finite is seventeen. Non-finite is sixty nine. Non-finite has quite big portion in introduction since the clauses in this part contain non-finite clauses such as to-infinitive clauses, past participle clauses and ing-clauses. The non-finite is mostly used to modify the noun in form of words

and clauses. The finding shows that introduction part uses present finite dominantly since this part contains information from the writers of why, what and how are their studies conducted. The information mainly contained the writer ideas. However past is also used to quote previous findings. The writers effectively use these two kinds of finite in functioning language interpersonal meaning.

Findings and discussion part has a large number of finite because the finding and the explanation of the findings are drawn on in this part. Primary tense is still dominating the finite in findings and discussion. It has one thousand fifty finites which past and present have six hundred five and four hundred forty two respectively. The different from finite in introduction is future finite has three. It is small but gives its existence. Another finite, modality, has two hundred thirteen. Non-finite has three hundred ninety eight and it is still high. In this part, past is the biggest number finite. It is different from finite in the introduction that present is the biggest one. The findings show that primary tense is effectively used to deliver the information to readers. It can be inferred that future should be avoided in the clauses of research journal articles.

The last part is conclusion. The finite portion in this part shows that primary tense is consistently the biggest number in this part. It has ninety three finites combined from eighteen past, seventy four present and one future. modality finite

has twenty eight and non-finite is sixty two of one hundred seventy four clauses. Non-finite is the second biggest number after present finite. The findings tell us that present or past are common finite in conclusion and all parts of research journal article.

Study area perspective presents the formation of finite in three subjects. Compared to each study area, primary tense finite is still higher than others. Past and present have approximately number of finite in each article but present is higher than past in English Language Teaching (ELT) and Linguistics. Past is only higher than present in Medical. Future finite rarely takes place in these study areas. It is only three future finite in ELT. Modality has one hundred sixteen of eight hundred ninety. Non-finite has fairly big number that is two hundred eighty two of all finites. It can be inferred that non-finite is used in every part of each article and its number only little lower than present and past finite. These findings show that clauses in research reports contain primary finite supported by non-finite in maintaining interpersonal meaning with readers.

Finite is also seen on view of native and non-native speakers. Table 13 presents the spreading of kinds of finite. This perspective shows if there are any differences in these two speakers. Native speakers use present finite most of the other finite. The second is past and then non-finite. modality is only one hundred twenty eight finites of nine hundred five. The least is modality having four finite. The findings show that primary tense in term of past and present are effectively used as elements of mood of interpersonal meaning.

Finite is still dominated by primary tense consisting seven hundred twenty seven. The interesting feature is the difference present and past finite in these two speakers. Native speakers use

three hundred twenty three present finite more than past finite, two hundred sixty two. And meanwhile non-native speakers prefer use past finite. They use four hundred three past finite and present three hundred twenty one.

This finding shows the different way of writers in giving and demanding information or goods and services. Kinds of finite used in the clauses reflect the judgment in interpersonal meaning. Zarina (2013) also found that the mood and modality system expressing interpersonal meaning of newspaper text are present in both independent and dependent clauses. Future finite is used by both speakers under one percent. But both of the speakers use the approximately same number of modality finite and non-finite.

The findings of finite are supported by some previous research. Adejare (2013) found that mood represents eighty one percent of finite verbal groups or primary tense compared to modality, thirteen. Below are the examples of finite in the clauses.

Number of Clause	Number of Sentences	Clause	Part of Article	Primary Tense			Modality	Non Finite	Mood			Residue	Article
				Past	Present	Future			Subject	Finite	Modal adjunct		
36	14	This was a chronic stroke population with a mean time from stroke event to study enrollment of 6.8 ± 8.9 yr.	Findings	1					This	was		a chronic stroke population with a mean time from stroke event to study enrollment of 6.8 ± 8.9 yr.	Medical Native
7	3	Based on the overriding aim of foregrounding the language	Introduction				1					Based on the overriding aim of foregrounding the language	ELT Native
297	85	one can reduce its social purpose	Discussion				1		one	can		reduce its social purpose.	ELT Native
53	18	These aspectual distinctions indicate more independence from a main clause than a non-finite.	Findings	1					These aspectual distinctions	indicate		indicate more independence from a main clause than a non-finite	Linguistics Native
234	66	they will usually comply that request	Discussion		1	1			they	will	usually	comply that request.	ELT Native

Modal Adjunct

The last element of mood in clause as exchange is modal adjunct. They are mood adjunct and comment adjunct. Table 14.1 presents those two adjunct portions. Mood adjunct is closely tied to finite. Comment adjunct here is located in initial and afterthought.

Table 14
Modal Adjunct in Clauses of all article

	Modal Adjunct		Number of Adjunct	Number of Clauses
	Mood	Comment		
ELT Native	15	3	18	335
ELT Non-native	30	2	32	555
Linguistics Native	43	5	48	393
Linguistics Non-native	12	6	18	319
Medical Native	11	2	13	177
Medical Non-native	11	0	11	213
Total	122	18	140	1992
Percentage to Modal Adjunct	87.14%	12.86%		
Percentage to Clause	6.12%	0.90%	7.03%	

The number of mood and comment adjunct is small because not all of clauses in the six articles have modal adjunct. However modal adjunct contributes interpersonal meaning as Kacmarova (2011) found modal adverbials are functioned as modality markers to communicate confidence in the truth value of the proposition.

As seen in the table 14, mood adjunct is one hundred twenty two of one hundred forty. It is higher than comment adjunct that only has eighteen of one hundred forty. Linguistics native article has the most mood adjunct. The lowest are located in two articles that is medical native and medical non-native. Another adjunct, comment, has the biggest number in linguistics non-native and the lowest in medical non-native which has no one comment adjunct. The findings show that mood adjunct is preferred to contribute interpersonal meaning to subject and finite. Modal adjunct in this kind of academic text is not bound with feeling of writer which influences the personal and social relationship with readers.

Adjunct in each part of article is illustrated below. This illustration helps readers or writers of research journal article have a picture of modal adjunct. There is relatively small number of mood adjunct used in introduction. This part only has nine in two hundred fifty eight clauses. The rare thing is all mood adjuncts are used in non-native speakers' research articles. ELT non-native, Linguistics non-native and medical non-native has three mood adjunct each. All native speakers' articles do not have mood adjunct. Comment is only one of ten modal adjuncts in two hundred fifty eight clauses in introduction. It is also in non-native article that is linguistics non-native. The findings show that native speakers have obvious definiteness in stating information than non-native speakers.

In findings and discussion, there are one hundred six mood adjuncts in one thousand five hundred sixty clauses in this large part. It is linguistics native article has the highest number, forty three. And the lowest is in linguistics non-native, five. Comment adjunct has only twelve in this part. There is one article in which has no one single comment adjunct. The article is medical non-native. Findings and discussion as the largest part of research article still uses less mood and comment adjunct. This finding shows that modal adjunct is seldom used in the clauses of research journal articles. It means that the research articles are empirical texts avoiding using adverbs as mood and comment adjuncts in building and maintaining personal and social relationship with the readers.

The existence of Mood adjunct in conclusion is not often used in this part as well. There are seven of twelve modal adjuncts for mood adjunct.

The highest number of mood adjunct is in linguistics non-native. Comment adjunct is only used in ELT native and linguistics non-native articles. They are one and four respectively. The finding shows that modal adjunct is rarely used in conclusion part. It may reflect the clauses in conclusion are based on scientific study avoiding the uncertainty.

Table 14.5 present the adjuncts are analyzed based on the study area. This study reveals that modal adjunct is used in all study areas. ELT and medical have similar number of mood adjunct used in the clauses. Mood adjunct number in medical articles is the lowest but the number of clause makes the percentage higher than mood adjunct in ELT. The number of adjunct in ELT is the biggest of all but the number of clauses in this subject is the highest, five hundred fifty five clauses. Therefore the percentage is the lowest. Linguistics has the biggest number of adjunct that is sixty six in seventy hundred twelve clauses. It is also the same view for comment adjunct. The other two subjects have similar percentage of adjunct. The number of this adjunct is lower than one percent.

We see the spreading of adjunct based on speakers below.

From this table we can see that native speakers use mood adjunct more than non-native speakers. Mood adjunct in native is sixty nine. It is quite higher than mood adjunct used in non-native articles that is only fifty three. The other adjunct, comment adjunct, also has different number between articles of native and non-native. Native speakers use more comment adjunct, ten, in their clauses than non-native, eight. The findings of modal adjunct show the different way of native and non-native speakers use modal adjunct as element of mood of interpersonal meaning. The difference shows the effectiveness of giving and demanding information or goods and services in clauses as exchange. Below are the examples of modal adjuncts in clauses.

Number of Clauses	Number of Sentences	Clause	Part of Article	Modal Adjunct		Mood			Residue	Article
				Mood Adjunct	Comment Adjunct	Subject	Finite	Modal adjunct		
122	38	they are rarely working as groups.	Discussion	1		they	are	rarely	working as groups.	ELT/Native
62	24	lead students to high level thinking (Good & Brophy, 2000; Gunning, 1992).	Introduction	1		this strategy	can	often	level thinking (Good & Brophy, 2000; Gunning, 1992).	ELT/Non-native
241	87	tend to be less synchronized with each	Findings		1	constituents	tend	Consequently,	synchronized with each other.	Linguistics Native
65	19	They are often conducted as small group activities	Discussion	1		They	are	often	conducted as small group activities	ELT/Native
391	123	questions are not self-generated	Discussion		1	teachers' questions	are not	typically	self-generated	ELT/Non-native

Modality of Interpersonal Meaning

After three mood elements were shown, Modality is discussed. Modality in this term is Modality that consists of finite and mood adjunct. The difference is there are two main elements of

modality revealed in the research articles. They are modalization which has possibility and usability as its elements and modulation that has obligation and inclination as its elements. Table 15 presents the complete view of modality in discussion.

Table 15
The Number of Modality in all article

Articles	Modalization		Modulation		Total	The Number of Clauses
	Possibility	Usuality	Obligation	Inclination		
ELT Native	16	7	11	3	37	335
ELT Non-native	33	16	30	1	80	555
Linguistics Native	36	40	8	0	84	393
Linguistics Non-native	21	2	7	0	30	319
Medical Native	17	1	4	0	22	177
Medical Non-native	19	2	2	0	23	213
Total	142	68	62	4	276	1992
Percentage modality to clauses	51.45%	24.64%	22.46%	1.45%	13.86%	

This finding reveals that possibility, one hundred forty two, is mostly used in research journal articles than the other three. This finding is in line of Qun’s findings stated that academic papers have more consultative tendencies and analytical features with the use of “can” and “may”. “can” and “may” are two of possibility modalities. The second is usability, sixty eight, and the third is obligation, sixty two. Inclination is the least used in research report. It has only four in one thousand nine hundred ninety two clauses. The findings also show that the writers open opportunities of changing. They tell readers the similar or different fact may happen or been found in research. This is reflected by the most dominant possibility. The possibility of modalization is successfully used to communicate with readers. This success creates interpersonal meaning from modality.

How is modality of interpersonal meaning used in each part? In introduction, possibility has the highest percentage, five point zero four percent. Three articles use it and they are all non-native articles. This view is the same as usability that is used in non-native articles. And it becomes lesser respectively from usability, obligation and inclination. Obligation is used by ELT non-native and Linguistics native, the only native article use it. Only inclination was not used in introduction of these research journal articles. The absence of inclination

shows that research journal article is informative text and not offering goods and services text.

In findings and discussion, possibility has the highest number, one hundred seven. All articles use it. There are two articles do not use usability. But usability is the second highest, sixty. The most possibility and usability used are in linguistics native. Obligation is also used in all articles. Meanwhile, ELT non-native uses the most obligation, twenty two. Only ELT articles use three inclinations. The findings also show the same phenomena as in introduction part.

In conclusion, possibility is still mainly used in clauses of the articles. It has twenty two. The difference from introduction and findings and discussion is obligation is used more than usability. Obligation has twelve of one hundred seventy four clauses. It tells us that conclusion is rich in obligation besides possibility. Inclination is still the least, one. The findings from this perspective show the similarity to the previous two parts of research journal article.

Another angle of findings found is modality in each subject. From this perspective, possibility is mainly used in all subjects. The interesting finding is usability. It is used only zero point seventy seven percent in medical articles. The finding shows that natural science as medical uses less usability in giving or demanding as roles in exchange. The writers of this study area tend to build personal

relationship with readers differently from the other writers of study areas. Obligation has the lowest number in medical articles as well. Inclination is only used in ELT article. Linguistics native uses eighty four modalities without inclination. Medical native has the least modality in its clauses and it did not use inclination as Linguistics native did.

How modality is used in speakers? Native speakers use possibility in their clauses less than non-native speakers, sixty nine compared to seventy three. They prefer to use usuality, forty eight, than non-native speakers, twenty. But non-native speakers use more obligation than native speakers do. This is very interesting finding. Native uses twenty three obligations and non-native uses thirty nine. Both of them use lower than one percent inclination in their clauses and this only happens in ELT. The findings of modality in this study may be reflected by sociolinguistics as Fikriet. al. (2014) believed that cultural and social factor of the teachers contributes the differences between male and female teachers' mood structures. The findings also result the different output of relationship between writers and readers. Native speakers try not to force readers to do what the writers asked.

Finally, the findings of mood and modality of interpersonal meaning used in research journal articles are not exactly the same as the theories stated in chapter two. As Bloor and Bloor (2004:11) and Drogba and Humprey (2005:1) stated that interpersonal meaning is the way we communicate with other people by expressing and understanding feeling, attitude and judgment and taking roles. Subject takes the roles. Finite may give judgment and attitude. However in articles of research journal, understanding and expressing feeling is not truly stated because the analyzed text is monologue text. Feeling may seem clearly in dialogue text. Below are the examples of modality in the clauses.

Number of Clauses	Number of Sentences	Clause	Part of Article	Modalization		Modulation		Mood			Residue	Article
				Possibility	Usuality	Obligation	Inclination	Subject	Finite	Modal adjunct		
201	93	The results of this review may be limited by the low quality of	Discussion	1				The results of this review	may		be limited by the low quality of published trials identified in our study.	Medical Non-native
175	62	Self-management interventions focused on poststroke fall risk should be developed and assessed.	Conclusion			1		Self-management interventions focused on poststroke fall risk	should		be developed and assessed.	Medical Native
96	37	providing the addressee with a response, whether verbally or non-verbally.	Findings		1			the participants	avoided	rarely	avoided providing the addressee with a response, whether verbally or non-verbally.	Linguistics Non-native
314	114	The result suggests the discourse function of asymmetric coordination is for the second clause constituent to provide an essential expansion or elaboration of the first clause.	Findings			1		The result	suggests		suggests the discourse function of asymmetric coordination is for the second clause constituent to provide an essential expansion or elaboration of the first clause.	Linguistics Native
311	91	Inquiry dialogue offers the potential to open up opportunities for language	Conclusion				1	inquiry dialogue	offers		offers the potential to open up opportunities for language learning.	ELT Native

Conclusion

This study reveals two main findings: How subject, finite and modal adjunct is used in mood in term of declarative, interrogative and imperative. How is modality used in term of modalization and modulation. These findings are concluded in these subchapters.

Mood of interpersonal meaning in term of declarative, interrogative and imperative.

The findings answer this study's questions. The first answer is mood of interpersonal meaning is mainly found in declarative especially in positive indicative. From this finding, it can be concluded that subject, finite and modal adjunct are mostly in declarative and this influences the mood elements. The first element, subject, is dominantly functioned as stated because the subjects in the mood of clauses are in declarative. The subjects state information to readers. This feature helps the articles' writers successfully deliver the interpersonal meaning. The other functions or meanings of subjects: questioned, commanded and offered are very rarely used in research journal article.

The second element of mood, finite is mainly in form of primary tense: past and present. Native speakers tend to use present and non-native speakers tend to use past finite. It can be concluded that research journal articles mainly use finite of primary tense: past and present. Primary of future is very rarely used in research reports. The third element, modal adjunct, must be carefully used. They may relate the mood or residue in clause as exchange. It is concluded that this element is seldom used in the clauses of research report. Mood adjunct is more applied than comment and mostly in form of modality.

Modality of interpersonal meaning in term of modalization and modulation.

The second answer to this research question Modalization is preferred applied in the clauses of research journal article. Possibility is mostly used than usuality in modalization. Obligation is used by non-native speakers more than natives. This gives sociolinguistics further study. Inclination is almost not used in the articles.

Implication

The findings of this study give an outline of grammatical characteristics in mood and modality of interpersonal meaning implicating how researchers use mood and modality to write their research reports. Some theories are obtained from the findings of this study. The second implication is that the findings of this study help lecturers or students in

academic writing formulating the elements of mood and modality of interpersonal meaning used. More theories give constant contribution to academic writing class.

Suggestion

It is suggested for further study to cover the other parts of articles that are not analyzed in this study. The study is suggested to explore more in term of mood and modality for instance, trinocular perspectives as proposed by Halliday and Matthiessen (2004).

Finite is also able to be analyzed more and deeper in term of primary tense. If this study find out past and present are mostly used beside modality and non-finite, what verbal verb of past and present finites are actually used in research journal articles. In what context or conditions present and past finite are used in research journal articles. Exploring the non-finites and how are they used in research journal article may enrich this study in the future.

In modal adjunct, the further study can explore more the lower elements of mood adjunct and comment adjunct as Halliday and Matthiessen (2004) said that there is clear line between these two adjuncts. The last suggestion is to explore more relationship in the phenomena of the findings in this study with sociolinguistics depending on the writers' background: education, nationality or gender.

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