# **Teacher Questioning from a Discourse Perspective**

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#### **Abstract**

Although evidence from education research indicates that questions account for the majority of class time and are significant pedagogical tools, little is known about teachers' views on questioning. The present study aimed to explore interaction patterns generated by questions in an EFL class and the teacher's use and views on questioning by using discourse analysis, classroom observation, and interviews with the teacher. Initiation-response-feedback interaction patter (*I-R-F*) was the most frequently found pattern and teacher's questions served to initiate much of the talk in classroom. The triangulation of the data sources revealed that display questions were found more frequently than referential questions during the reading activities and that the teacher asked questions to 1) engage the students; 2) elicit responses to be used as content for teaching; and 3) guide the students to apply prior knowledge to better comprehend the reading. This was in line with findings from educational research studies about cognitive roles of questions and shed light on the use of display questions in language classroom.

**Keywords**: classroom discourse; questions; questioning; reading

### Introduction

Teacher's questioning has been regarded as one of the essential tools to facilitate instructional process. Researchers indicated that questioning is second only to lecture in terms of popularity (Cotton, 1988: Gall, 1984: Richards & Lockhart, 1994). It was reported that approximately half of the teacher's talk was devoted to questioning session (Cotton, 1988). Teacher's questioning could also draw and maintain students' attention, check students' understanding, and assess student's learning progress.

Questions from teachers contribute to classroom interactional patterns, having the potential to turn teacher's monologue into a two-way interaction. Questions can engage students in an active interaction (Brock, 1986; Long & Sato, 1983) giving them an opportunity to practice features of language which could potentially develop their target language learning. Moreover, studies related to language classroom discourse found that teacher's question also has its role in marking exchange boundaries, and signaling an opening and a closure of the teaching episodes (McCarthy, 1991; Sinclair & Coulthard, 1975).

Research studies in education and language learning were mainly concerned with the 'what to ask' – the distinction of question types (Fakeye, 2007; Gall, 1984; Long & Sato, 1983; Noor, Aman & Mustaffa, 2012; Shen & Yodkhumlue, 2012; Tan, 2007; Yang, 2010). It has been reported that display questions (questions which the answers were known to the teacher), and lower cognitive questions (questions which required students to recall previously presented information) were asked more than referential questions (questions which the answer were unknown to the teacher) and higher cognitive questions (questions which required students to engage in independent thinking). Nevertheless, little was known why display and lower cognitive questions were mainly asked. Mindful of these gaps, this study aimed to gain a better insight into the use and views on questions in language classroom and drew on literature from education, language learning and discourse to address the aim.

## Questioning

Questioning has been used as an instructional strategy and has been regarded as a powerful teaching tool. Plato and Socrates, the Greek philosophers used questions to challenge assumptions and expose contradictions, and their use of questions was claimed to build a new body of knowledge and understanding (Bernadawski, 2006). In classroom, teacher's questioning is used to serve several instructional purposes. Teachers ask questions to engage learners' attention, promote verbal response, and evaluate learners' progress. Teacher's questioning is also a means to elicit information, check students' understanding, and their behavior (Chaudron, 1988; Nunan and Lamb, 1996). Because of its functions and its widespread use as a teaching technique, teachers' questioning has been of interest among researchers and practitioners in various fields of study.

Studies related to teacher's question revealed that teacher's use of questions accounted for the great proportion of class time. By reviewing literature on teacher's questions in general education in America, Gall (1984) concluded that about 50% of the class time was dedicated to questioning session. Also, Cotton (1988), conducted a document analysis on teacher's questioning behavior in America and reported that teacher's questioning occupied about 30 – 55% of the class time. Chaudron (1988), in his review of several studies related to teacher talk, and teacher and student interaction in second language classroom mentioned that teacher's question constituted about 20 – 40% of classroom. In addition, using Sinclair and Coulthard (1975)'s model to analyze the interactional patterns of three Hong Kong secondary English class, Tsui (1987) found that teacher's question was one of the distinct features in the interaction.

To account for such pervasive use of questions, Gall (1984, p.42-45) and Richards and Lockhart (1994, p. 185) provided the following reasons:

- They check students' understanding
- They determine the amount of students' learning
- They enable a teacher to clarify what a student has said
- They enable a teacher to elicit particular structures or vocabulary items
- They provide cues that could lead students to focus on particular content of the lesson
- They stimulate and maintain students' interest



- They enhance students' engagement and participation
- They encourage students to think and promote the development of thinking skills

#### **Classification Schemes of Teachers' Questions**

Several categorizations were developed to account for questions used in different classroom settings and academic disciplines. Thompson (1998) developed a categorization to investigate the interactive functions of the teachers' questions found in lectures and academic presentations in two disciplines: Language and Applied Linguistics; and Science and Technology. Thompson categorized the functions as having two orientations: audience- oriented and content-oriented. Audience-oriented questions refer to questions posed to elicit either verbal or nonverbal responses. The questions carry out three main functions: 1) to check if teacher's or presenter's utterances have been understood by audiences; 2) to evoke a response from the audiences; and 3) to seek an agreement from the audiences. While audience-oriented questions seek for audiences' responses, content-oriented questions require no immediate responses and have two functions: 1) to raise issues – the teacher or the presenter did not immediately intend to answer the question but later provided a commentary of the question related to the issue being addressed, and 2) to introduce The study revealed that the teachers and the presenters from both disciplines asked questions to check audience's comprehension most, followed by to raise issues. However, the third frequently found function was different in the two disciplines. In science and technology discipline, the teachers and the presenters asked questions to focus information, while in language discipline, the teachers and the presenters asked questions to evoke audience's responses. Thompson concluded that the functions of questions found in the two disciplines were slightly different.

Adhering to Thompson's categories (1998), Chang (2012) conducted a study to examine the functions of teacher's questions in three disciplines: 1) Humanities & Arts (HA), 2) Social Sciences & Education (SS), and 3) Physical Sciences & Engineering (PS). Chang's finding affirmed Thompson's. Chang found that the teachers from the three disciplines asked questions to elicit students' responses the most, followed by questions to check comprehension. However, the third frequently found functions of the questions were different between the soft disciplines (HA and SS) and the hard discipline (PS). In the soft disciplines, the teachers asked question to manage the class flow such as 'have you guys found it? It's page nine-point-two-three.' (p. 106), while the teachers from hard discipline asked questions to focus information.

Also adopting Thompson's categorization, Camiciottoli (2008) conducted a comparative study on the use of questions in spoken lectures and written material. With the different modes of communication taken into account, modifications of the categorization were made. That is, the audience-oriented questions had three functions: 1) to elicit response; 2) to request confirmation/clarification check; and 3) to solicit an agreement. The content-oriented questions had two functions: 1) to focus on information – draw students' attention to upcoming information; and 2) to stimulate students' thought. The study revealed that the three most frequently found functions in spoken discourse were eliciting response, focusing information, and stimulating students' thought respectively. In written discourse, the three most frequently found functions were focusing information, stimulating thought, and soliciting agreement.

The findings of Thompson (1988)'s, Chang (2012)'s, and Camiciottoli (2008)'s studies indicated that the functions of the teacher's questions were slightly different in different disciplines as well as in modes of communication. That is, in humanities and arts including language classes, questions were asked to interact with audience and regulate class flow while in science and technology classes, questions were asked to obtain information.

Another strand of research has attempted to classify types of teachers' question found in classroom and education contexts (Aschner, 1961; 1994; Bloom et al., 1956; Flanders, 1970; Long & Sato, 1983; Richards & Lockhart, 1994). However, the research studies differed in basis of classification.

One of the most frequently used classification scheme is the one that stems from the notion of Bloom's taxonomy of learning (1956). The taxonomy included three domains:

- Affective domain learner's emotions and attitudes towards learning experiences
  - Psychomotor domain learners' manual or physical skills
- Cognitive domain learners' knowledge and the development of intellectual skills.

It should be noted that these three domains, to some extent, overlapped. Skills in one domain may affect or depend upon skills in other domains.

Within the cognitive domain, there are six levels that describe learner's intellectual ability starting from simpler behaviors to the most complex ones. The definition of each level is summarized in Table 1 below:

**Table 1** Six levels of Bloom (1956)'s cognitive abilities

	315 01 210 011 (1900) 5 <b>00 8</b> 11101 (1900)
Knowledge	The ability to remember, memorize, recognize, recall identification and
	presented information
	The ability to interpret and translate from one medium to another, describe
Comprehension	in one's own words, as well as organize and select presented facts and
	ideas (retelling)
Annlication	The ability to solve problem, apply presented information to produce some
Application	result, utilize of facts, rules, and principles
	The ability to subdivide something to show how it is put together, find the
Analysis	underlying structure of a communication, identify motives, separate a
	whole into component parts
Crypthogia	The ability to create a unique original product that may be in verbal form
Synthesis	or physical object, combine ideas to form a new whole, predict, and refer
Evaluation	The ability to make value decision about issues, resolve controversies or
Evaluation	differences of options, develop opinions, judgment or decisions

(Bloom et, al. 1956, p. 201)

This taxonomy was originally developed to illustrate the level of learning, and later it has been adopted to serve several instructional purposes including categorizing the questions that may be associated with a certain level of learning. More recently, Bloom's taxonomy has been revised with alterations in the labels and in the order, i.e. remembering, understanding, applying; analyzing, evaluating, and creating

(Krathwohl, 2002). Nevertheless, as far as categorization of questions is concerned, the original taxonomy is still applicable. Examples of questions categorized according to the six levels of cognitive domain are

**Knowledge** "What is the biggest city in Japan?"

"Who wrote War and Peace?"

"How many ounces are there in a pound?"
"How would you illustrate the water cycle?"

**Comprehension** "How would you illustrate the water cycle?"

"What is the main idea of this story?"

"If I put these three blocks together, what shape do

they form?"

**Application** "How would you use your knowledge of latitude

and longitude to locate Greenland?"

"What happens when you multiply each of these

numbers by nine?"

"If you had eight inches of water in your basement and a hose, how would you use the hose to get the

water out?"

**Analysis** "What are some of the factors that cause cancer?"

"Why did the United States go to war with

England?"

"Why do we call all these animals mammals?"

**Synthesis** "How would you assemble these items to create a

windmill?"

"How would your life be different if you could

breathe under water?"

**Evaluation** "What do you think about your work so far?"

"What story did you like the best?"

"Do you think that the pioneers did the right thing?"

"Why do you think Benjamin Franklin is so

famous?"

(Frederick, 2005 p. 129-132)

### Teacher's Question in ESL/EFL Classroom

In language teaching discipline, Bloom's taxonomy was also adopted to analyze teachers' questioning behavior found in classroom. Tan (2007), and Shen and Yodkhumlue (2012) used the six levels of cognitive domain as a framework to categorize the types of question teachers used in Chinese ESL classroom. Similar results were found; lower cognitive questions were predominantly used. However, the studies did not reveal why lower cognitive questions were mainly used or how the higher cognitive questions might help the learning process especially language learning.

Another strand of research studies teachers' questions within the framework of teacher talk and the input-interaction hypothesis. Teacher talk or teacher speech directed to students is usually lexically and syntactically less complex, and this simplification is believed to make input or language addressed to learners more accessible (Lynch, 1996). Questions are used to check students' comprehension and encourage students to interact with teachers or among themselves. Several researchers

(e.g. Ellis, 1994; Chaudron, 1988; Long & Sato, 1983) posit that learners' learning of the target language takes place through conversational interaction and meaning negotiation within the interaction. Long (1996) mentioned that questioning could be one feature that stimulated and facilitated such interaction and negotiation.

Based on this notion, Long and Sato (1983) developed the classification of questions. In their framework, questions are categorized into echoic and epistemic questions. Echoic questions are questions that ask for the repetition of an utterance or a confirmation that the utterance has been interpreted as intended. They are used for comprehension checks, confirmation checks, and clarification requests. Epistemic questions are questions that serve the purpose of acquiring information. Each of them is illustrated below:

#### 1. Echoic

- a. *Comprehension checks* (e.g., Alright?; OK?; Does anyone understand "polite'?)
- b. Clarification requests (e.g., What do you mean?; I don't understand; What?)
- c. Confirmation checks (e.g., Carefully? Did you just say "carefully"?)

# 2. Epistemic

- a. Referential (e.g., Why didn't you do your homework?)
- b. *Display* (e.g., What's the opposite of "up" in English?)
- c. Expressive (e.g., It's interesting the different pronunciations we have now, but isn't it?)
- d. *Rhetorical:* asked for effect only, no answer expected from listeners, answered by speaker (e.g., Why did I do that? Because I .....)

(Long & Sato, 1983: 276)

Long and Sato (1983) also compared the interaction between native speakers to nonnative speakers inside and outside classroom. They reported that in the classroom, display questions – questions that required already known answers, were asked more than referential questions – questions that the asker did not know the answer. The pattern was different outside classroom with more referential questions being asked more often. Long and Sato concluded that referential questions could engage students in a meaningful interaction and they resembled the actual communication outside the classroom. They stated

From the evidence here... ESL teachers continue to emphasize form over meaning, accuracy over communication. This is illustrated, for example, by the preference for display over referential questions, and results in classroom NS-NNS conversation which differs greatly from its counterpart outside classrooms... Indeed, on this evidence, NS-NNS conversation during SL instruction is a greatly distorted version of its equivalent in the real world (p. 283 - 284).

This has generated the view that referential questions could elicit longer and more syntactically complex responses from students and allow students to explore and test their language hypothesis and exercise the use of the target language; therefore,



referential questions have been perceived as being preferable in language teaching ground (Brock, 1986; Nunan, 1987).

Studies on teacher's question in language education contexts used Long and Sato's classification system and reported similar findings. That is, display questions were asked more than referential questions. Inan and Fidan (2012) analyzed the classroom transcripts of teacher's questions asked by native Turkish teachers teaching Turkish as a foreign language classes. The analysis showed that display questions were asked more than referential questions, but the researchers did not explain why it was the case. Fakeye (2007) investigated the types and the effects of questions asked by ten English teachers in six secondary schools in Nigeria and found an extensive use of display questions over referential questions. The analysis revealed that students responded to display questions than to referential questions. Yang (2010) investigated the types of questions three pre-service teachers in Hong Kong secondary school asked in English language classes. In line with the findings reported in Inan and Fidan (2012) and Fakeye (2007), Yang's analysis of lesson transcripts showed that display questions were mostly asked, and referential questions were rarely asked. Yang made an observation on the findings that the types of questions found in the data were mainly related to the contents and objectives of the lessons. The classes were grammar classes in which vocabulary and grammatical forms were the focus, display questions were asked to check students' knowledge of the vocabulary and to provide students opportunity to practice grammatical forms.

It can be seen that display and referential questions fulfilled different functions in language classroom. Although referential questions tend to generate longer responses, length and complexity of students' responses are not the only factors in language learning. As Seedhouse (1996) mentioned, institutional goals, course objectives, lesson objectives, learning contents and activities, students' cooperation as well as the authenticity of the conversation in classroom should be taken into account. Mindful of these factors, we used discourse analysis as an approach to studying questions asked in an EFL classroom. This study was part of a larger study which explores how teachers' experience may affect their questioning and language classroom discourse patterns.

# **Research Questions**

The study was guided by two questions:

- 1. What patterns of teacher-student interactions are evident in an EFL classroom?
- 2. What are the teacher's views on questioning?

The first question sought to reveal patterns of interaction found in a language classroom. It was hoped that discourse analytic framework could reveal a possible interplay between question types and interaction patterns found the context under investigation. The second question was formulated to reveal underlying factors of the teacher's questioning behavior and views on her questioning, which could shed light on the phenomenon observed in the first research question. Moreover, the question could tap into teaching goals, expected learning outcomes, and other factors associated with questioning.

The study aimed to investigate the types and functions of questions, the teacher's perception of the questions, and patterns of student-teacher interaction generated by the questions. It did not aim to assess the teacher's ability to ask question, the quality of the questions, or the effect of the questions on students' learning.

# **Classroom Discourse and Discourse Analysis**

The present study employed a discourse analysis to analyze the interaction in the English language classroom under observation. The analysis was based on Sinclair and Coulthard (1975)'s model of classroom interaction analysis which described patterns of teacher-student interaction in classroom. The model focused on an ascending order of larger units to smaller units from transactions, exchange, move, and act, which are illustrated in the diagram below.

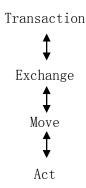


Figure 1 Sinclair and Coulthard (1975)'s model of classroom interaction

In Sinclair and Choulthard's framework, classroom interaction is categorized as transaction, and consists of exchanges, moves, and acts. Act is the smallest unit of the rank. The three most frequently found acts are elicitation, directive, and informative acts. Acts are combined together to form moves. There are five classes of move: framing; focusing; opening; responding; and follow-up moves. The framing and focusing moves together form boundary exchange. Opening, responding, and follow-up moves together form teaching exchange.

Boundary exchange is the exchange that signals the transition from one section of the lesson to the next section. It consists of framing move – the move that signal the beginning stage of the lesson, and focusing move – the move that draw students' attention to the direction of the lesson (Sinclair and Coulthard, 1975 p. 22).

Teaching exchange consists of opening move, response move, and follow-up move. This three-move sequence is usually called I-R-F (Initial-Response-Follow-up) sequence, which is the essential part of the model. A number of exchanges make up transaction, the largest unit of the classroom. Table 2 below illustrates the I-R-F move pattern.

**Table 2** Example of I-R-F move pattern

**Initiation** Teacher: Can you tell me why you eat all that food?

**Response** Pupil: To keep strong.

**Follow-up** Teacher: To keep strong. Yes. To keep strong.

(Sinclair and Coulthard: 1975, p. 33)

The reason this model used was as the analytical framework was that it allowed the researchers to capture the overall structure of the classroom talk, provided analytical units and categories of interaction between the teacher and students as well as teacher's questions.

### Methodology

The data were collected from three sources: audio recording of an EFL classroom (33 students), interviews with a non-native English teacher with over 20 years of teaching experience and training, and observation notes as well as copies of materials used in the course.

#### Context of the study and the participants

The research was conducted at a liberal arts school in a Thai public university. The classroom under inquiry of the present study was entitled English II course, which was one of the two compulsory courses (English I and English II) for first year English major students. Both courses integrated reading, writing, speaking and listening skills. English I aimed to build lexico-grammatical proficiency and academic literacy, and English II expanded communication skills with an emphasis on reading and writing skills. The course was taught by two teachers and was divided into two sections: the reading section, and the writing section. The teacher participant of the present study was responsible for teaching the reading section.

Upon their consent, the class which consisted of a teacher and 33 first-year English major students agreed to participate in the study. At the time of data collection, the students were in their second semester. The non-native teacher held an M.A. in Linguistics, Ph.D. in Curriculum and Instruction, and a diploma in Teaching of English as a second language with 21 years of experience in teaching English as a foreign language.

#### Data collection tools

Three data gathering tools were used in this study: audio recording, classroom observations, and semi-structured interviews. The whole data collection was approved by the research ethics board of the institute the researchers gathered the data. Then permission was sought from the teacher and the student participants. We were granted permission to gather data in a course for first-year English major students. There were two primary electronic devices that could be used obtained the data, video recorder

and audio recorder. After asking the participants whether they preferred video recording or audio recording, all participants agreed on audio recording method. Therefore, the present study used audio recording to obtain classroom interaction. One of the researchers recorded the actual interaction in three sessions and conducted classroom observations in order to obtain the contextual data which could help explain the interaction such as physical settings of each session, the teacher's gestures that accompanied talk, materials being used, and time allocated for class activities. The present study used non-participant observation as one of the data gathering strategies. According to Liu and Maitlis (2010), non-participant observation refers to

[A] data collection method... which the researcher enters a social system to observe events, activities, and interactions with the aim of gaining a direct understanding of a phenomenon in its natural context. As a nonparticipant, the observer does not participate directly in the activities being observed (p. 3).

Semi- structured interviews were employed in order to gather data related to the teacher's view on her questions and questioning behavior (see Appendix A). All interviews were conducted in the day of each classroom observation, amounting three interviews. Before each interview, the researcher asked the teacher whether she preferred to be interviewed in Thai or English. The first interview was in English. The second and the third interviews were in Thai with some code switching during the interviews. During each interview, a set of predetermined questions were asked. Also, additional questions were asked in response to the teacher's emerging points and to encourage the teacher to elaborate her reply. Each interview was audio recorded and notes were also taken to record the non-verbal gestures of the teacher during the interviews.

# Analytical framework

After gathering data from audio recording and classroom observations, audio data were transcribed using discourse analysis convention adapted from McCarthy (1991), Schiffrin (1994), and Sinclair and Coulthard (1975). The transcripts were then analyzed based on the four discourse units mentioned in Sinclair and Coulthard (1975)'s model: transaction; exchanges; moves; and acts. There were three transactions. Table 3 below illustrates the exchanges identified in the first transaction.

**Table 3** Example of exchanges

Transaction I
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Exchange 1 Small talk before lesson started

Exchange 2 Revision for midterm exam

Exchange 3 Directions for midterm exam

Exchange 4 Pop up quiz

Exchange 5 Reading technique: guessing meaning of words

Transaction 1

Exchange 6 Reading selection: Conformity

Exchange 7 Group activity: finding main ideas from the 'Conformity' reading

Selection

Exchange 8 Assignment

Then, acts in the teacher's and students' utterances were identified. After that, the researcher assigned moves, and move patterns from all three transactions were compared to find the common move patterns among the three transactions, particularly moves in which questions were used.

To analyze the teacher's views of questioning, Strauss and Corbin (1990)'s open and axial coding approach was employed. Open coding is "[t]he process of breaking down, examining, comparing, conceptualizing, and categorizing data" (Strauss & Corbin, 1990, p. 61). Once the data are categorized, they "are put back together in new ways...by making connection between categories" (p. 97), which is a process of axial coding.

According to Strauss and Corbin (1990), open and axial coding helped the researcher discover participant's ideas. The teacher's ideas were labeled and categorized. The relationships among the categories were established. As a result, the researcher was able to provide a meaningful account of the teacher's views on her questioning. After the data gathering, the researcher transcribed the interview into verbatim transcripts. First, the researcher read through the transcripts several times. In open coding, the researcher developed tentative labels for the excerpts that represented the same facts. After that, in axial coding, relationships among different labels were established. The labels were rearranged if there were overlaps or redundancies.

The data from the three sources were then triangulated in order to find out how the data may converge, diverge, or reveal inconsistencies (Mathison, 1981) which can lead to further interpretation regarding questions in language classroom.

#### **Results**

The analysis of the three transactions further revealed that there were similar exchange themes found across the three transactions: 1) interpersonal establishment; 2) teacher's attempt to remind or revise students of the contents they had learned; 3) teacher's delivery of knowledge; 4) student's practice of reading skills; and 5) homework. These are shown in Table 4.

**Table 4** Similar exchange themes found in the three transactions

Themes	Exchanges
Interpersonal relationship establishment	Transaction 1, exchange 1
	Transaction 2, exchange 1, 3
	Transaction 3, exchange 1, 2

Themes	Exchanges
Teacher's attempt to re mind students of the	Transaction 1, exchange 2
contents they had learned	Transaction 2, exchange 6
	Transaction 3, exchange 9
Teacher's delivery of knowledge	Transaction 1 exchange 3, 5, 6
	Transaction 2, exchange 9
	Transaction 3, exchange 7
Student's practice of reading skills	Transaction 1, exchange 7
	Transaction 2, exchange 7, 8, 10
Homework	Transaction 1, exchange 8
	Transaction 2, exchange 11
	Transaction 2, exchange 7

As seen from the table, exchanges in which the teacher tried to establish interpersonal relationship with the students and in which the teacher tried to remind students of what they had learned were usually at the beginning of the transactions. Exchanges in which the teacher delivered knowledge related to the reading texts and reading strategies, and exchanges in which the students practiced their reading skills were usually in the middle of the transactions. Exchanges in which the teacher assigned homework to the students were usually at the end of the transactions. The analysis also showed that exchanges in which the students practiced their reading skills were found to have high frequency of the teacher's questions.

# Interaction patterns

There were four main move patterns emerging from the analysis: I-R-F, I-Ib-R-F, I-R, and I-I, which were found 149, 70, 76, and 34 times respectively, totaling 320 interactions. Within all these 329 interactions, 327 interactions were initiated by the teacher, and only two interactions were initiated by the students. The definitions of each of the four patterns are explained below along with illustrations from the database.

**Table 5** Occurrence of move patterns in the three transactions

Patterns	Frequency	Explanation
I-R-F	149 times	An initiation move (I), usually realized by elicitation act such as a question, followed by a responding move (R) or a reply to the eliciting act, and a follow-up move (F), usually in the form of an acknowledgment or feedback



Patterns	Frequency	Explanation
I-Ib-R-F	70 times	An initiation move, re-initiation move (Ib), followed by a responding move, and a follow-up move
I-R	76 times	An initiation move, followed by a responding move
I-I	34 times	Teacher's initiation move realized by an elicitation act, which was usually in the form of question, followed by reinitiation move to invite students to contribute to the interaction

## Questions in the initiation move

The analysis found that the initiation move was mainly realized by questions. There were 706 questions found in the data set. The majority of the question belonged to epistemic category, amounting 658 questions, while the other 48 questions were echoic questions. The frequency of questions in each category and sub-category is illustrated in Table 6.

**Table 6** Frequency of occurrence of epistemic and echoic questions

Category	Frequency of occurrence
Epistemic category	
Display	516
Referential	122
Rhetorical	14
Expressive	6
Echoic category	
Comprehension check	33
Clarification request	11
Confirmation check	4
Total	706

The analysis shows that within the epistemic category display questions were found much more frequently than referential questions, 516 and 122 times respectively. Display questions were mainly concerned with the details of the reading selections in order to help students comprehend the reading, as well as to stimulate students to practice the reading techniques and strategies. The most frequently found

type within the echoic category was comprehension check questions (33 times) followed by clarification request questions, and confirmation check questions.

The following extract shows an example of the I-R-F move with the teacher's use of display questions.

**Extract 1** Example of teacher-student interaction in which the teacher asked display questions (Transaction 3, Exchange 3)

- T: From the beginning the writer talked about the types of fear that American people had by asking from the opinion of whose?
- 142 S1: Taxi driver.
- 143 T: Taxi driver. And what was his nationality?
- 144 S2: Russia
- 145 S3: Russian.
- 146 T: Russian.

The extract was taken from transaction 3, exchange 3 – Assignment check. In the extract, the teacher was asking the students the details of the reading passage *'Two Sides of Fear'*. Display questions, as seen in lines 140-142, and 144 were asked in order to use the answers of the questions to discuss the reading text further in the subsequent exchanges. The first question in elicited short responses from the students, but only a few students, out 33 students, answered the question. This might have prompted the teacher to ask further after she provided positive feedback in line 144, thus generating another I-R-F move, lines 144-147.

Another discourse feature of teacher question found in this data set was display questions that came at the end of a long initiation move. Extract 2 illustrates this feature.

**Extract 2** Example of I-R-F pattern with long initiation move (Transaction 2, Exchange 9)

- 544 T: What is the subject of this sentence?
- 545 S1: The American frontier.
- 546 S2: Main idea is.
- T: The word 'the main idea is that' right? That's part of it.
- Let me ask you first. The subject is 'the
- main idea', right? And verb is 'is'. 'The main idea is'. Then
- there's continue on of the sentence 'that the American frontier
- with its endless possibility for opportunity and expansion has
- shaped the country's national character. You know the subject.
- Now, read the whole sentence. What kind of sentence is this
- one? Simple, compound, or complex?
- 555 S1: Complex.
- 556 S2: Compound.
- 557 S3: Complex
- 558 T: Compound is very simple, right? You have 'and, but, or, nor,
- so, for' in the middle with two clauses. In here you have 'The
- main idea is' and then you have 'that the American frontier'.
- That's another part of subject. And verb for 'the American



#### 562 frontier' is what? 563 Ss: Has shaped. 564 T: Has shaped the country national character. And 'with its 565 endless possibility of opportunity and expression' is part of the 566 modifier. So this sentence is a complex sentence because it has 567 'the main idea IS THAT the American frontier', subject. Has 568 shaped the country, verb. So two clauses, two subjects, and two verbs. And the two clauses are put together with 'that'. So 569 570 in order to understand this sentence, you need to understand 571 what the main idea is

In the extract, the teacher used questions to guide the students to analyze parts of the sentence and to identify type of the sentence presented on the screen as seen. The question in line 544 constituted the initiation move which elicited the response from the student and the teacher in the subsequent lines. The teacher used the student's response to introduce the students to the content of her teaching—analysis of sentence structures. The display questions in lines 553 and 554 came after a long initiation which provided contextual clues necessary for the students to answer the question. After that, the teacher explained sentence structures and explained further how understanding parts of the sentence might help students to understand the sentence as seen in lines 566 - 571.

In an interview afterward, the teacher revealed the reason she asked students to identify types of sentences as followed:

Well, I would like to make a transition and pointed out to the students that if they answered the types of these sentences, we would be analyzing sentence structures next.

The objective was I would like to show them that if they analyzed sentence structures, it would be easier to understand the reading. ... I would like to make them realized that even though the reading is difficult and there are a lot of unknown words, if they use suitable reading techniques I taught, it helps.

In the teacher's view, the questions served pedagogical functions because they were used to form links between teaching topics and initiated interaction in which the teacher elicited responses from the students and used them as the content of her teaching.

The teacher's modification of questions in re-initiation moves and the reasons

The triangulation of the data sources revealed a relation between the teacher's modifications of questions and the students' lack of response. The questions included display and referential questions. After the questions were asked, and after wait-time (varies from one to 13 seconds) without a response from the students, The teacher reinitiated, usually with a repetition of the question, structural and lexical modification and simplification, prompts, clues, and she asked her students individually to answer the questions. Then there was an answer to the elicitation, and the teacher provided feedback to the student's response. Extract 3 illustrates the I-Ib-R-F move pattern.

# **Extract 3** Example of I-Ib-R-F pattern (Transaction 1, Exchange 2)

35 T: **Do you agree with Josh?** He mentioned some reading 36 techniques (2.0) Josh said he could use some reading techniques 37 in the midterm exam. How about you? Can you? (2.0) 38 Yes? No? (1.0) Izzy? (1.0) Give me some specific example-39 Anyone give me some specific example on how might we use 40 some of the techniques you have learned. (8.0) Jennifer you 41 seems to seriously think about it. (3.0) What was my question? 42 A lot of distractions. (2.0) **Keith. Tom.** (2.0) Try to answer my 43 question please. I'm waiting for your answer. (3.0) Because you 44 say 'no you're not ready', so I'm quite concerned if you say no 45 and we have no chance to meet again until after exam. And you 46 can't ask no more question then. (6.0) I'm waiting or your 47 answer. Because if you say no I'll be very concerned. You say 48 no you're not ready for the exam. Because we'll meet again next 49 year after the exam. We have no more class before that time. 50 Can you share with me any problem you have, or anything 51 vou would like to mention? 52 S: (4.0) The reading is quite hard. 53 T: The reading is quite difficult. Probably it's quite challenging.

The extract was taken from Transaction 1, Exchange 2 — Revision. In the extract, the teacher initiated the revision exchange by asking a referential question and display questions (lines 34 and 37-38). However, there was no response form the students as seen in line 35. The teacher made a second attempt to invite students to provide the responding move by making some structural modification of the previous elicitation as seen in lines 36-37, yet no students responded to the question. The teacher then provided several re-initiation moves to invite students to answer the question. The teacher provided choices, called her students by name, provided reasons the students should answer the question (lines 47-49). In line 52, one student provided a short answer and the teacher acknowledged students response and provided a comment as seen in line 53 which led the subsequent revision of the previously taught reading strategies.

Extract 4 also illustrates changes in the acts found in the teacher's long initiation move.

**Extract 4** Example of I-Ib-Ib pattern and modification of teacher questions (Transaction 2, Exchange 7)

369	T: Let's say if we are hungry for ah money, what would happen?
370	(1.0) What would happen when people are hungry of money?
371	(3.0) What would happen? $(8.0)$ Okay, let me let me do this. If
372	you just spend a few minutes with a person who sit next to you,
373	either in group of four or three, depending on where you sit. Ah
374	try to make a list of, as many as possible, things that people
375	would be hungry for. And then also thing further on what might
376	happen, let's say if we we connect the word hungry to money,



what might happen? Ah in two minutes, please. As fast as possible. See how many you got on the list. And you also need to mention what would happen.

In the exchange, the class was doing a reading activity of a long passaged entitled *Hunger for More*. The teacher initiated the exchange by asking a referential question as seen in line 369. Without a response from the students, the teacher reinitiated and shortened the question to invite students to provided response as seen from lines 370 to 371. However, after the eight second wait-time, still there was no response. Therefore the teacher changed her questioning into directing the students to do a group discussion (lines 371 to 379).

The analysis of the data showed that the teacher asked questions to stimulate students to cognitively engaged in the lesson, as well as stimulate students to practice their critical and analytical thinking skills which, in her view, could help the students to achieve the learning outcomes. In her words, the process was "learner engagement". She mentioned:

I emphasize learner engagement. By engaging, I mean they have to be cognitively engaged, they have to think, to have something going on in their head, not just physically engage like pretending to pay attention. So I ask questions to make them engaged and think, to make the learning happen within them, not from me. Because like I said, when you tell someone to think, you cannot tell whether they think or not, otherwise you ask questions, and the answers could tell if they think or not. And if the answer is correct, I would continue asking so that everyone think and engaged, which could result in a learning process, not just a teaching process from me.

The teacher also stressed the significance of asking questions to stimulate students' thinking. She added:

I found that sometimes the students' problems are not with the grammar, or the English proficiency, but they do not think. So this semester I try to make them think.

# Reasons for asking display questions

Further analyses into the acts that constituted the frequent I-R-F pattern revealed the use of display questions to elicit information that was present in the task at hand and guide students to apply previously taught techniques. This way, the teacher helped shape students' ideas. This is illustrated in the following extract.

**Extract 5** Example of teacher's questions asked to shape and guide students (Transaction 3, Exchange 6)

T: What is the main idea? What is a major message that he tries to deliver to readers here? (2.0) He talked about wars on drugs

617	and war on terror comparing to war on climate change. So
618	what is he trying to do here? (6.0) Come on, think. (9.0) You
619	got the information with the title 'farewell fair weather', right?
620	The writer talked about it's our own human's activities or
621	human works that make the weather become bad. Climate
622	change. So he's proposing the idea in paragraph twelve
623	comparing it to wars of drugs and war on terror. So he's
624	proposing the idea on war on climate change. What does that
625	mean? What is he persuading people to do? (6.5) When we
626	talk about war, what is the connotation?
<b>626</b> 627	talk about war, what is the connotation?  S: To realize the:: disaster- the danger from nature.
627	S: To realize the:: disaster- the danger from nature.
627 <b>628</b>	<ul><li>S: To realize the:: disaster- the danger from nature.</li><li>T: We need to realize. Just to realize the danger of disaster from</li></ul>
627 628 629	<ul><li>S: To realize the:: disaster- the danger from nature.</li><li>T: We need to realize. Just to realize the danger of disaster from the environment? (2.0) When we talk about war, what</li></ul>
627 628 629 630	S: To realize the:: disaster- the danger from nature.  T: We need to realize. Just to realize the danger of disaster from the environment? (2.0) When we talk about war, what happen?
627 628 629 630 631	<ul><li>S: To realize the:: disaster- the danger from nature.</li><li>T: We need to realize. Just to realize the danger of disaster from the environment? (2.0) When we talk about war, what happen?</li><li>S: Death.</li></ul>

In the extract, the teacher asked students the main idea of the reading passage Farewell Fair Weather as seen in line 615. When the students could not come up with a correct answer, additional questions were asked provide clues to the students to think systematically as seen in lines 616-626, 628-630, and 632. A directive "Come on. Think" after quite a long wait-time (line 618) encouraged the students to engage with the analysis of the passage. Later on she stressed that getting main ideas was a subskill constantly fostered in the English I and English II courses.

With the intention to promote the students' thinking process when they could not come up with the answer to the question previously asked, the teacher asked more questions. The teacher explained:

Like I told you, the objective is to encourage them to think. So when they could not answer the question, instead of telling answer, I would ask them additional questions to give some clues.

The teacher also emphasized her preparation for questions to be asked in each class. She took the level of text and content difficulty and Bloom's taxonomy into consideration. She stated

I am aware that a good question should engage students to practice their higher cognitive ability as shown in Bloom's taxonomy. So I try to emphasize this kind of questions....I want the students to evaluate the content of the reading and the application of the reading techniques taught in previous class.

She added that she planned to use display questions to make sure that the students could understand the text. In her words

You could see that questions asked to day were very specific. In



the reading text, they had to read and told the details, so there were specific questions such as "What did the character bring to school and caused him to be made fun of?"...There were plenty of display questions asked because I wanted the students to practice their skimming technique....the vocabulary was not too difficult, yet the whole concept of the story [Hunger for More] was difficult. I had to put an emphasis on understanding.

It was clear that the teacher asked display questions to guide and cognitively engage the students. This cognitive walk-through was constructed by the display questions and the information elicited from the students in the response move.

#### **Discussion**

The findings were grouped into two themes and discussed with reference to the two research questions.

The first question explored teacher-student interaction patterns in the class. The findings showed that I-R-F move was the most found pattern with evidence of the teacher's reinitation. This findings supported the views of researchers who argued that I-R-F pattern was a dominant interactional pattern found in classroom (Cazden, 2001, as cited in Faruji, 2011; Cutting, 2002; Lynch, 1991; McCarthy, 1996; Seedhouse, 1996; Sinclair&Coulthard; 1975; Yu, 2009). However, as far as reading class in concerned, the findings differed from what Tsui (1987) found in her study of ESL classroom interaction in one Hong Kong primary school. Tsui reported that the interactional patterns in reading class were not limited to only I-R-F pattern and the interactions were initiated and contributed by both teacher and students, as she put, "the interaction was varied and the direction of the communication goes both ways" (p. 351). In the current study, not only I-R-F and I-Ib-R-F were found to be dominant interactional patterns of the reading class, but also most of the interactions were initiated by the teacher.

The high frequency of the I-R-F pattern, on the one hand, indicated that the classroom under the investigation were rather teacher-centered, which was not in line with what Cutting (2008) proposed about the direction of the communication in language classroom in recent years. According to Cutting, language classroom was moving towards learner centeredness: learners tend to initiate and actively participate in the interaction. In the present study, the data showed that the teacher mainly initiated and that the responses were short and regularly contributed by only a few students.

On the other hand, the triangulation of the data shed light into this seemingly teacher-oriented class. The long wait-time of over four seconds which was regularly found throughout the recorded data, the high frequency of teacher-initiated moves which were realized by questions, and the usually long initiation in which questions were the head act indicated that the teacher had to make several attempts in order to elicit responses from the students. In her attempts, the teacher provided contextual factors before asking questions, made structural and lexical modifications and simplification of the original questions, asked additional or alternative questions, provided clues or part of the answers. Although these modifications were relatively similar to the questioning modifications discussed by Chaudron (1988), and Lynch, (1996) which aims to make input comprehensible for students in ESL settings, the

analysis of three data sources suggested that the modifications of questions were the result of students' lack of response; and that the modification of questions found in the present study aimed to engage the students, invite them to contribute to classroom discussions and to keep the interaction between the teacher and the students, as well as the topic of learning going.

The second question explored how the teacher viewed her questioning. The analysis revealed that the teacher, an experienced EFL instructor, was aware of her frequent use of display questions used Bloom's taxonomy to guide her questioning. The high frequency of display questions especially during the reading activities. These findings were in accordance with a number of studies conducted in other EFL contexts. Studies investigating question types EFL teachers asked conducted in Nigeria, America, Malaysia, and China reported teachers' dominant use of display questions over referential questions (Fakeye, 2007; Long & Sato, 1983; Tan, 2007; Yang, 2010; Xu, 2011).

As mentioned in the literature review, there have been arguments supporting the use of referential questions in language classroom because referential questions could help engage students in a meaningful interaction, which promote students communicative ability. Display questions, on the other hand, elicit short, restricted, and already known knowledge. The question did not engage students in a meaningful interaction, thus, should be lessened. Supportive to Long and Sato (1983) was Nunan (1987), an advocate of communicate language teaching (CLT). From the CLT perspective, Nunan argued that display questions only required the answers already known to the asker. This did not contribute to the degree of communicative features in the classroom which could help students learn and practice the target language. However, in the present study, even though display questions elicited answers that the teacher already knew, the questions were seen to play an important part in an instructional process. That is, the questions were seen to induce students to process their thinking and learning of the subject matter e.g. reading strategies. This was in line with what Flemming and Levie (1993) mentioned that display questions have a place in instructional design because they could help students process information.

In the teacher's words, the display questions found in the data set had been planned with reference to Blooms' levels of cognitive abilities (Bloom et al, 1956; Krathwohl, 2002). Display questions were used to guide students to recall the contents of the reading materials and apply the reading techniques they had learned in order to enhance and assess their understanding of the reading passages. The questions were also used to guide students to analyze keywords, contexts, types of sentences and writer intentions, and to evaluate the learning contents and materials. These functions were in line with the functions of teachers' questions discussed by practitioners and researchers in language and mainstream education (Camiciottoli, 2008; Chang, 2012; Chaudron, 1988; Gall, 1984; Nunan and Lamb, 1996; Richard & Lockhart, 1994; Thompson, 1998).

The triangulation of the findings from classroom discourse, classroom observations, and interviews indicated that display questions did played a significant role in the language classroom under investigation. This lent support to an argument that display questions are purposeful and have a rightful place in language classroom (Fakeye, 2007; Gall, 1984; Ho, 2005; McCarthy, 1991; Nunn, 1999; Seedhouse, 1996; Thompson, 1997), as Ho (2005) put:



It is certainly not enough to determine the quality of a teacher's questions by looking purely at the type of questions being asked, but more importantly the intentions behind the questions... If we examine it against the overall aims of language learning... the questions [display questions] do make sense and is therefore purposeful. (p. 308)

# **Pedagogical Implications**

The study helped raised awareness of what to ask in a language classroom and how questions generate stretches of talk. Teachers and teacher trainers should be made aware of the discourse features generated by all question types rather than focusing on a distinction between display and referential questions alone. Information about classroom discourse like this could be shared among language teachers to promote a better insight into questions and questioning.

Secondly, the results of the study implied that referential questions might not always generate interaction. Despite the teacher's attempts to create communication and collaboration with the students, which could enhance students' learning of the knowledge and the expertise they needed, there was little cooperation from the students and, at some point, reticence. This urged teachers and trainers to consider training on modification of questions to get students to interact with teacher and provide support that EFL students would need in order to verbally engage with classroom such as the phraseology related to expressing one's stance, agreeing and disagreeing with the proposition of a given question.

## Limitations and recommendations for further research

As mentioned earlier, the present study was based on one language classroom in EFL setting. While it presented a detailed analysis of classroom discourse and the teacher's views on questioning, the findings were confined to one case. Thus, the findings may not be generalized.

Another limitation of this study is that the study focused only on the teacher's view. It did not include interviews with the students, which could potentially reflect their views on the teacher's questions. A further study which include students interview is therefore suggested.

The classroom under investigation was a reading course. The study conducted to investigate teacher's questions and questioning behavior in other skills course such as speaking would be very interesting. This could potentially reveal similarities and differences of teacher's questions and questioning behavior of teachers from different subject matters and skills. Also, a comparison between the questioning behavior of an experienced teacher's and an inexperienced teacher's is suggested.

Finally, the findings of the present study showed that the teacher's follow up move to the students' responses usually occurred in a form of indirect corrective feedback. It would be interesting to find out further how the students react to, and make use of the teacher's feedback to gain their uptake.

#### Conclusion

The present study was conducted with an aim to investigate the English language teacher's use and view on questions. Using discourse analytic approach and integrating the teacher's views, the present study was able to identify the types, and the roles of teacher's questions in the classroom interaction, and the teacher's underlying rationale of asking those questions.

The findings indicate that communication in a language classroom was filled with the teacher's questions related to subject matters. The main interactional patterns found in the data set were I-R-F, and I-Ib-R-F, in which most of the initiation moves (*I*) were realized by teacher's questions. This suggested that teacher's questions had a role in initiating the classroom interaction. The findings also showed a high frequency of the teacher's initiation moves realized by questions. From this, it may looked as if the teacher dominated the interaction, thus, made the classroom very teacher fronted. However, the long wait-time, the modifications and elaborations of the original questions, and the combinations of questioning strategies the teacher employed to get students responses suggested that the teacher attempted to engage students in the interaction and lead them to higher level of cognitive ability. This, to some extent, substantiated the argument supporting the benefit of display questions in language classroom.

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# Appendix A

# **Interview Questions**

- 1. How do you feel about the class today? Why?
- 2. Would you please share with me why you ask this question? (The researcher will replay the recording of the classroom and pause at the question)
- 3. Have you considered asking this before the class today? Why? How?
- 4. Why do you think you had to say this (question)? Did you do so in other classes?