CHAPTER II

REVIEW OF THE LITERATURE

This chapter reviews related to questions and questioning techniques which is used by the teacher during EFL classroom instructional process. It presents the concept covering question, types of questions, taxonomy of questioning techniques, taxonomy of questions' function.

A. The Concept of Question

A question is any sentence which has an interrogative form or function. In classroom settings, teacher question are defined as instructional cues or stimuli that expose students to the content elements to be learned (Cotton, 2001). It has become an essential part of instruction in that allows teachers to monitor students' competence and understanding as well as increase thought provoking discussion (Critelli & Tritapoe, 2010). This deals with leading students to acquire certain knowledge.

In teaching and learning context refers to any idea that requires a response from listener. It is used to make a request for information. Furthermore, the request itself is made by such an expression and the information is provided with an answer. The situation takes place when the teachers want to get students' responses and the first step is to answer questions (Ndun, 2015). According to these definitions, it can be generalized that question refers to any idea that requires a response form the listener. Teacher questions are defined as instructional cues that convey content

elements to be learned by students and directions for what they are to do and how they are to do it.

Questions play a great part in communication. Ma (2008) posits that question is used as learning tool to promote interaction. Therefore, question in the language classroom enable the teacher to evaluate his or her learners and motivate learners to attend lesson attentively.

Richards (1994) have stated the following as the justifications for the important question in teaching.

1. They stimulate and maintain students' interest.

2. They encourage students to think and focus on the content of the lesson.

3. They enable teachers to check students' understanding.

4. They enable a teacher to elicit particular structures or vocabulary items.

5. They encourage students' participation in a lesson.

This implies that in teaching and learning process, questions are the main aspect of all communication among teacher and students.

Question based on Tsui (1995 in Ndun, 2005) in the language classroom play a significant role in promoting learners' language proficiency. They are employed to check students' comprehension, to see if they have acquired knowledge imparted, to focus their attention and involvement in the lesson, to control behaviour, and to encourage the students to use the target language for communication. In line with this, Ennis (1996) proposes that questioning is a common technique used in language teaching. The goal is to check if the students understand what they have been taught, and to enhance

students' involvement and to promote students creative thinking in classroom interaction.

B. The Classification of Questions by Type and Taxonomy of Questioning Techniques

Teachers in the EFL classroom employ different types of questions to make teaching effective and enhance learners' proficiency in the target language. As it has been explained by Richards and Lockharts (1994), there are three types of questions. They are procedural, convergent, and divergent questions.

Procedural questions have to do with classroom procedures and routines and classroom management as opposed to the content of learning. For example Richards and Lockharts (1994) state that the following questions usually occur in classrooms while teachers are checking that assignments had been completed, that instructions for a task are clear, and that students are ready for a new task.

Did everyone bring their homework?

Do you all understand what I want to do?

How much more time do you need?

Why aren't you doing the assignment?

Procedural questions are designed to engage students in the content of the lesson, to facilitate their comprehension and to promote classroom interaction.

Convergent questions encourage similar student responses which focus on a central theme. These responses are often short answer, such as

"yes" or "no" or short statement. Richards and Lockharts (1994) recommend the following questions as convergent used by teacher in introducing a reading lesson focussing on the effects of computers.

How many of you have a personal computer in your home?

Do you use it every day?

What do you mainly use it for?

What is the difference between software and hardware?

Divergent questions encourage students' responses which are not short answer and which require students to engage in higher level thinking. They encourage students to provide their own information rather than to recall previously presented information. In general, they often require students to analyse, synthesize, or evaluate a knowledge base and then project or predict different outcomes (Richards and Lockharts, 1994). Therefore, divergent questions often require new, creative insight. After asking the convergent question above, the teacher goes to ask divergent questions such as the following.

How many computers had an economic impact on society?

How would business today function without computers?

Ellis (2012) differentiates four types of questios. Those are *factual questions* 'what', *reasoning questions* 'how and why', *open question* that do not require reasoning, and *social questions* that influence students behaviour by means of control or appeal. In other hand, Long and Sato (1983 in Ndun

2015) have classified question as *display* and *referential question.* A display question is one to which the questioner knows the answer whereas a referential question is one to which the person asking questions does not know the answer. Nunan (1989 in Ndun 2015) further commented that referential questions provide an opportunity for the students to express their ideas without any restrictions and develop the output of the target knowledge.

1. **Types of Questions According to Bloom's Taxonomy**

Most of the question-classification systems are composed almost entirely of categories based on the type of Bloom cognitive process required to answer the question (Gall, 1970). In one of the earliest taxonomies, Bloom (1956, Toni & Parse, 2013) categorizes questions into the following groups:

1. Knowledge: the recalling of formerly-learned material (e.g. What is the special name of this triangle?),

2. Comprehension: the ability to understand the meaning (e.g. Explain how you got that answer!),

3. Application: the ability to use learned material such as rules, methods, concepts, principles, laws and theories in new and concrete situations (e.g. Give me an example of a situation that you may have this experience!),

4. Inference: the ability to form conclusions that are not directly stated in instructional materials. (e.g. How do you feel about it?),

5. Analysis: the ability to breakdown material into its elements so that its organizational structure may be understood .This may involve the classification of parts, exploration of the association between them, and identification of organizational principles (e.g. Why did that work in this case?),

6. Synthesis: the ability to collect different parts and put them together to create a new whole. Synthesis encourages learners to form something new and rely on innovative and creative thinking. (e.g. What would happen if you called him?),

7. Evaluation: the ability to assess the value of materials, the explanation to problems or the details about particular cultures (What do you think?).

In line with Brown, however subtitues 'inference' as the Bloom's taxonomy, Cooper and Perott (1986 in Ndun 2015) classifies six levels of Bloom's taxonomy and question at each level require the students responding to use a different kind of thought process. These six levels are knowledge, comprehension, application, analysis, synthesis, and evaluation.

1. Knowledge

It is the lowest level of cognitive process and a prerequisite for all other higher levels. In this level, questions are asked to require students' ability to remember and recall knowledge, concepts, and materials previously learned. The knowledge level of questions involves the recall of specifics and universals, the recall of methods and processes, or the recall of a pattern, structure, or setting.

2. Comprehension

This level of Bloom's taxonomy requires students to go beyond knowledge by understanding what they have learned. With comprehension the students must not only have knowledge, but must also understand what they know (Bloom, 1956). To answer this type of questions correctly, students are required to interpret the facts and understand the meaning of information and comprehend the way it applies in a specific situation. Some of the key verbs to use in asking comprehensive questions are: describe, rephrase, relate and explain.

3. Application

With application, the next higher level of cognitive process, students are encourages to be able to apply knowledge they have learned and gained in class to various situations. Teachers have always recognized that a student does not really understand an idea or what they have learned unless they can apply that idea, principle, or knowledge in new problem situations. In other words, students must be able to use their knowledge in new situations. Application questions can be asked in verbal directives such as: solve, choose, determine, employ, interpret, demonstrate and relate.

4. Analysis

In this level, students must be able to break down or separate comprehended knowledge into parts and applied it in different situations. So, in the classroom, analysis questions will require students to go beyond knowledge and application for analysing their problems. Verbs usually

associated with the analysis level are: analyze why, support, categorize, classify and put in order.

5. Synthesis

Another higher cognitive level which requires the creative combination of knowledge analyzed from several topics to create something which previously did not exist. Synthesis is putting together of elements and parts so as to form a whole, working with elements, parts and combining them in a way as to constitute a pattern or structure not clearly there before. With synthesis questions, students must be able to put all the parts together into a whole. They must use their own ideas, background and experiences in synthesizing process. The synthesis objective can be appraised by questions using verbs such as design, create, construct, develop, devise and plan.

6. Evaluation

It is the highest level which is defined as the making of judgments about the value, for some purpose, of ideas, experience, solutions, methods, and materials. The judgment, may be either quantitative or qualitative and the criteria may be either those determined by the students or those which are given to them, involves the use of criteria as well as standards for appraising the extent to which particulars are accurate, and effective (Bloom, 1956). In Bloom's taxonomy of educational objectives, evaluation is placed as the highest category of objectives because it requires some competence in all the previous categories - knowledge, comprehension, application, analysis and synthesis. Evaluation encourages students to make applied judgments about something they know, and have analyzed, synthesized, on

the basis of criteria which can be made explicit to give their viewpoint. There will be no correct answer. Verbs used in the evaluation objective are judge, evaluate, criticize, choose, estimate, predict and argue.

In the language art education, several studies have undergone the analysis of cognitive levels of questions the language teachers used in the language classroom by employing Bloom' cognitive taxonomy. For example, Janice (1991) studied questions and responses patterns in second language leaning classrooms in Indonesia. Teachers' questions and students' responses were analysed via adapted Bloom's (1956) taxonomy of questions. It is evident from the results of the study that classroom interaction was marked by lower-level teacher questioning and rote echoic responses. The data also showed that several teachers followed a general pattern which started with low level questioning as a review and introduction to new materials, gradually higher level questioning as the materials were explained, and a repetition of low level questions for the lesson review. Janice (1991) maintains that using adapted Bloom's (1956) taxonomy of questions revealed an in-depth analysis of the cognitive levels of questioning in the classroom.

2. Taxonomy of Questioning Techniques

In the language classroom setting, where foreign language learners should have a great number of tools for initiating and maintaining language, encouraging the learners to respond to teachers' questions can provide stepping stones for developing their interactive ability and skills. It also fosters cooperation, promotes critical thinking, allows them to become

creative and innovative, and enhances their sense of competence and self worth (Brown, 2004).

In the classroom, questions are used for different purposes in an attempt to elicit responses from students to sustain classroom interaction and promote their thinking skills. However, it was found that not all questions achieve the purposes in eliciting responses from the students. Thus, when teachers' questions failed to encourage students to provide responses, teachers have to use other questioning techniques to encourage students to respond to teachers' questions by providing them with opportunities to hear the questions again or by making difficult and complex questions more understandable (Wu, 1993). Based on Wu's (1993) taxonomy of questioning techniques, five questioning strategies are suggested to help students answer teachers' questions in the language classroom: repetition, rephrasing, decomposition, simplification and probing.

1. Repetition

    It is asking an original question again. The teacher repeats the question in the hope of enabling students to respond to that question.

2. Rephrasing

    It is reforming an original question in another way. When there is no response from students, the teacher asks the question again in different words and structures to make the forms of questions easier for students.

3. Simplification

It may be regarded as a kind of rephrasing by means of which the content of the questions is simplified. The teacher can simplify a situation by making the scope of the answers more specific which helps students understand the question better and thus can answer the question.

4. Decomposition

It refers to the strategy teachers use to break down an original question into smaller parts to encourage students to respond to the question.

5. Probing

It is the strategy for soliciting more information from students. Its purpose is to encourage students to develop the quality of their responses. It requires students to expand on and develop a minimally adequate response by making it clearer, more accurate, or more original with supporting rationale or factual information.

Fitriati, Isfara, Trisanti (2017) found teachers' questioning techniques as follow:

1. Rephrasing

Rephrasing means that a question is expressed in another way.

2. Simplification

Simplification is a questioning strategy which is similar to rephrasing strategy, but in simplification the teachers simplified the meanings of their questions. In this strategy, teachers would use many methods such as giving examples, clues, and focusing words to make the

previous question become more specific, clearer, and understandable for students.

3. Repetition

Repeating the same question for 2-3 times appeared to be the teachers' favourite strategy to stimulate students' responses. Repetition might be caused by at least two reasons. First, it could be because the teachers' question has not been heard clearly by the students, and second, the students might have low ability in listening skills. They needed much more time to think before answering.

4. Decomposition

Decomposition strategy means that the teacher broke down their initial question (which is quite complex) into several simple questions in order to assist the students understand the questions' meaning. Decomposition strategy was very useful and helpful for the teachers in order to elicit the students' verbal responses. They make different questions based on the initial ones. It could provide enough chances for students to give their own opinions or arguments.

Taxonomy of questioning techniques directly addressed roles of questioning strategies in the study of classroom interaction, teachers' questions and questioning strategies employed in the language classroom. Therefore, Wu's (1993) taxonomy of questioning techniques is considered appropriate in analyzing teachers' questioning techniques in the language classroom in this study.

C. Taxonomy of Questions' Functions

Different researchers provide various reasons in order to the purpose of giving question. For example, Brown and Wragg (1993) list several functions of question:

1. To arouse interest and curiosity concerning topic;

2. To focus attention on a particular issue or concept;

3. To develop an active approach to learning;

4. To stimulate pupils to ask question of themselves and others.

The purposes of teachers' classroom questions that was stated by Collin (2001) from analysis of the literature include:

1. To develop interest and motivate students to become actively involved in lessons,

2. To evaluate students' preparation and check on homework or seatwork completion,

3. To develop critical thinking skills and inquiring attitudes,

4. To review and summarize previous lessons,

5. To nurture insights by exposing new relationships,

6. To assess achievement of instructional goals and objectives,

7. To stimulate students to pursue knowledge on their own.

Nunan and Lamb (1996) specify the purpose of teacher questioning. Those are "to check learners' understanding, to elicit information, and to control the class". Nunan and Lamb point out that a question to elicit information may be directed to students whose attention is wandering, and only an extended context would show

whether a question was designed to elicit information or check understanding. What is more crucial though is that the type of question asked might determine the nature of information the teacher would like to elicit from the students.

By handling the questions with a cross-disciplinary review, Kearsley (1976, in Toni & Parse, 2013) conducted questions in verbal discourse and made the following taxonomy of questions' functions:

1. Echoic: those which ask for the repetition or reiteration of a statement or verification whether an utterance has been understood as intended (e.g. Excuse me?! Pardon me?! What?!),

2. Epistemic: those which projects to acquire information:

    a) Referential: intended to provide contextual information about situations, occasions, activities, purposes, relations or possessions (Wh-questions, for example),

    b) Evaluative: asked to check the addressee's understanding of the answer (sometimes called display, test or known information questions),

3. Epressive: conveying attitudinal information to the addressee (e.g. Are you coming or aren't you?),

4. Social control: used to maintain power by preserving control of the dialog.

5. Attentional: allows the questioner to govern the direction of the dialog (meta-message is "listen to me" or "think about this").

6. Verbosity: asked only for the sake of politeness or to sustain conversation (e.g. cocktail party questions).

Long and Sato (1984, cited in Toni & Parse, 2013) modified Kearsley's taxonomy to account for the different types of teachers' questions they observed in ESL classes. The key distinction was between echoic questions, which ask for the reiteration of an utterance or verification that it has been understood as intended, and epistemic questions, which serve the purpose of acquiring information. Long and Sato also termed Kearsley's evaluative epistemic questions as "display questions". By and large, this distinction is similar but not identical to the open/closed distinction of Barnes.

In general, according to Ellis (2008, in Toni & Parse, 2013), "studies of teachers' questions in the L2 classroom have focused on the frequency of the different types of questions, wait-time (the length of the time the teacher is prepared to wait for an answer), the nature of the learners' output when answering questions, the effect of the learners' level of proficiency on questioning, the possibility of training teachers to ask more communicative questions, and the variation evident in teachers' questioning strategies". In much of the research, it has been assumed that L2 learning will be improved provided that the questions lead to active student participation and negotiation of meaning.

E. Related Research

Research on teacher questioning whether in content classroom or language classroom has been discussed more. Certainly teachers ask

many questions during an average school day. A half-century ago, Gall (1970) estimated that four-fifths of school time was occupied with question-and-answer recitations. He found that example of high-school teachers asked a mean number of 395 questions per day. Long and Stato (1983) found that 938 questions were asked by teacher in six elementary ESL lesson. Young (1992) conveys that persistence of questioning is a favourite teacher methodology. Roughly 60 % of all classroom talk comprises questions, and nearly all of them are asked by teachers. High frequencies of question use by EFL teachers were also found in recent investigations (Ellis, 2008; Ma, 2008; Toni & Perse, 2013; Naz et.all, 2013; Ndun, 2015)

Haminglu (2012) on examining types of teacher questions in the EFL classroom. The study shows that the purpose teachers' questions put across in the class are the most frequent. As these types of questions generally include yes/no, short answer and display type questions. The studies of teacher questioning types have also studied. Most of them use Wu's taxonomy of questions to analyses the data (Shen; 2012; Irmayanti & Rustandi, 2014; Dumteeb, 2009; Wangru, 2016)

Although there are several studies concerning teacher questioning techniques, they do not identify deeply on the purpose of teachers question. Moreover, the previous study is lack of relating questioning studies to students' responses. The striking difference to previous studies (Toni & Perse, 2013; Dumteeb, 2009; Ndun 2015; Wangru , 2016) is the participants which are involved. The participants of previous studies were

arranged into groups by same their English proficiency. Whereas this study conducted in the classes by mixing English proficiency and it will identify the questions and questioning techniques that is used by the teacher and students responses.