



## THE IMPACT OF TEACHER QUESTIONS ON STUDENT LEARNING IN EFL

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### Abstract

Teaching- learning process is a complex and multi-faced issue. There are many variables and two important components in it. Teachers' teaching and learners' learning build up a meaningful and effective educational context. However, it is not easy to observe and determine if learning really takes place in a class. Therefore, we have to use many means of checking learning. Teacher's question is one of these prominent tools. There are many types of teacher questions in an EFL class each of which evaluates learning from a different perspective. The outcomes of this process could reveal the amount of students' learning. This study intends to examine how the teachers' questions affect students' learning. The participants of the study comprise two groups of students from one private primary and one state primary school in Istanbul, Turkey. The results showed that there is an evidence regarding the impact of teachers' questions on students' learning.

**Key Words:** Teaching-learning process, EFL, question types, learning outcomes, teaching styles.

### INTRODUCTION

#### Background To The Study

Teaching and learning are reciprocal and multi-dimensional processes both of which affect each other and are important components in educational contexts. In this context, teachers and students learn from one another (Lathan, 1957, cited in Wood & Anderson, 2001) as they build up an environment of learning in a class. At this point, learning process gains a role as a mean for negotiation within the EFL setting and the success of this negotiation mainly depends on the quality and quantity of learners' participation to information sharing in the class as "getting students to speak –to use the language they are learning- is a vital part of a teacher's job" (Harmer, 2000: 4, cited in Yan, 2006) and responsibility "to adopt the target language to promote their communication with learners" (Yan, 2006) within which teachers' questions maintain the talk via extending and leading students into continuance.

A great deal of empirical research pointed out the significance of teachers' questioning strategies on the learning process in the class. As Adedoyin (2010) states that teachers' questions are of significant values for many instructional purposes, eliciting student reflection and challenging deeper student understanding and engagement in the classroom, teacher questioning is an indispensable part of teaching process with a reference to what Cotton (1988) stated as questioning is second only to lecturing in popularity as a teaching method and that classroom teachers spend anywhere from thirty to fifty percent of their instructional time conducting question sessions. And even "in some classrooms over half of class time is taken up by question-and-answer exchanges" (Richards & Charles Lockhart, 2000, cited in Shi-ying, 2011). Considering this great quantity of teacher talk in the class, the vital role of questioning stands for its quality component as a reflection of teaching. Vogler (2005, cited in Adedoyin, 2010) states that questions can monitor comprehension, help make connections to prior learning and can stimulate cognitive growth. However, good questioning is a skill of effective teaching which involves a good planning, higher cognitive thinking and creating cognitive improvement in the class. As Shulman (1987, cited in Boaler & Brodie, 2004) indicates that the act of asking a good question is cognitively demanding; requires considerable pedagogical content knowledge and Ornstein

and Lasley (2000, p. 184, cited in Bone & Pritchard) states that good questioning is both a methodology and an art, it necessitates teachers to know what and to whom they teach well.

There has been a great interest in the field towards the analysis of what purposes teachers' questions convey in the class. As there are different ways of asking questions there are many different purposes of questions Van Lire (1988, cited in Azerefeqn, 2008). Brown and Edmonson (cited in Çakmak, 2009) classify some purposes teachers' questions include as:

- to arouse interest and curiosity concerning a topic
- to focus attention on a particular issue or concept
- to develop an active approach to learning
- to stimulate pupils to ask questions themselves and others
- to diagnose specific difficulties inhibiting pupil learning
- to express a genuine interest in the ideas and feelings of the pupils
- to provide an opportunity for pupils to assimilate and reflect upon information.

The list indicates that there are many purposes governed by teachers in asking questions in the class.

According to the research, the type of initiating questions posed by the pre-service teachers influenced the possible range of students' responses and, subsequently, the types of follow-up questions the pre-service teachers posed (Groenke & Paulus, 2007). In their study, they examined the effect of teachers' questions on dialogic inquiry in the discussions using Computer-Mediated Communication (CMC) and resulted in that authentic initiation questions do seem to promote dialogic inquiry, which refers to the research conducted by Walker (2004, cited in Groenke & Paulus, 2007), who found that challenge questions were effective in promoting engaged student participation. Similarly, Boaler and Brodie (2004) stated that their coding of teacher questions illustrates the importance of the different questions teachers ask in shaping the nature and flow of classroom discussions and the cognitive opportunities offered to students. Yang (2006, p. 196, cited in Çakmak, 2009) also states that the teachers' questions can be considered as the most powerful device to lead, extend and control communication in the classroom, pointing the significance of questioning in the process of improving and leading classroom conversation.

However, how much a given student learns in a class is governed in part by that student's native ability and prior preparation but also by the compatibility of his or her characteristic approach to learning and the instructor's characteristic approach to teaching (Felder & Henriques, 1995), which underlies the factor of teachers' proaches and styles to teaching. They stated that a point no educational psychologist would dispute is that students learn more when information is presented in a variety of modes than when only a single mode is used, with a reference to the caution nducted by Smith and Renzulli (1984, cited in Felder & Henriques, 1995) that stress, frustration, and burnout may occur when students are subjected over extended periods of time to teaching styles inconsistent with their learning style preferences. It is clear that proficient student-centered teachers are able to use a variety of styles so that their ultimate style is integrated (Brown, 2011).

### **Theoretical Framework**

As noted above, the importance of questioning as an instructional strategy is widely acknowledged in the literature on teaching and learning (Edwards & Bowman, 1996). A teacher's questioning strategies are pivotal to the instructional process because questioning is the most frequently used instructional tool (Wassermann, 1991, cited in Moyer and Milewicz, 2002). Teachers' questions may serve different functions, including focusing attention, exercising disciplinary control in the course or an instruction, encouraging students' participation and moving the lesson forward among others (Shomoossi, 2004, cited in David, 2007). The pervasiveness of teacher questions in the classroom can be explained by the specific functions they perform (Setiawati, 2012). The theoretical framework of the study determines its stance on the following areas (Donald & Eggen, 1989):

- Diagnostic instrument: questions allow teachers to glimpse into the minds of students to find out not only what they know or don't know but also how they think about a topic. Through a well planned questioning, teachers can find out and recall not only what students know about a topic but also can identify their the needs and present gaps.

- Instructional instrument: questions help students learn new material and integrate it with the old one, and provide the practice and feedback essential for the development. Questions help students internalize what they learn and combine it with the new one.
- Motivational instrument: allows teachers to engage with students actively in the lesson at hand, challenging their thinking and posing problems for them to consider. "Frequent and periodic questions can encourage active participation and provide opportunities in the lesson for continued student involvement" (Yan, 2006).

Teachers' questions may process a variety of purposes, but Richards & Lockhart (2000, p. 186) classify questions asked in the class into three categories in terms of their purposes as procedural, convergent and divergent. Procedural questions have to do with classroom procedures and routines, and classroom management. Convergent questions encourage similar student responses, or responses which focus on a central theme. They do not usually require students to engage in higher-level thinking in order to come up with a response but often focus on the recall of previously presented information. Divergent questions are the opposite of convergent questions. They encourage students to provide their own information rather than to recall previously presented information.

Another categorization, which will be fundamental for this study, for teachers' questions was presented by Wajnryb (1992, p. 47) as follows:

- Yes/No questions, e.g. 'Here is a picture of woman. Have you seen her face before?'
- Short answer/ retrieval-style questions, e.g. 'What did she say about the film?'
- Open-ended questions, e.g. 'Whom could he have telephoned?'
- Display questions (questions requesting information already known to the questioner), e.g. 'What colour is this pen?'
- Referential questions (questions requesting new information), e.g. 'What did you study at university?'
- Non-retrieval, imaginative questions (questions that do not require the learner to retrieve given information but instead call on inferred information or information in which an opinion judgement is called for), e.g. 'What do you think the writer was suggesting by making the central character an animal?'

### Questions Of The Study

This study aims to explore the types of questions which are used by teachers in the class and to find out what purposes the questions convey in the process of teaching.

The study is based on the following questions:

- 1) What types of questions are used during the daily practices of teachers in a primary EFL class?
- 2) What are the aims of the questions asked by the teachers?
- 3) What is the frequency of different types of questions in EFL classes?

### Problem Statement

Brown (2001, p. 169) states that one of the best ways to develop your role as an initiator and sustainer of interaction is to develop a repertoire of questioning strategies. Therefore, what kind of and how questions are used in the class is important to provide an effective interaction. This study intends to examine how teacher questioning occurs and explore the types of questions teachers of EFL prefer to ask during the teaching/learning process by analyzing the data collected from different language classes where student teachers were observing in 2 practicum schools.

### Context Of The Study

The practicum schools where observations take place by student teachers of an ELT department of the education faculty of a state university in Istanbul, are located in Istanbul, Turkey.

School A is a private school which has a long history. School B is a primary state school. Although they are different in terms of their formal titles as private-state, they show some similar characteristics in terms of facilities and physical conditions. While School A has two sections as primary and secondary school and School B has only a primary section.

In School A, classes generally consist of 20 students. The classes are equipped with technological instruments such as a projector, a projector screen, a computer connected to the Internet, etc. There is also a computer lab for in the school.

In School B, the average class size is 28. The classes are equipped with a projector and a computer. Besides, there is a technology laboratory in the school. As in School A, there is a specialist also available for possible technical problems.

## METHOD

This study employs both qualitative and quantitative techniques to what type of questions are processed in EFL classes and to what extent they are used. The participants of this study are EFL teachers and the students from two schools where 11 student teachers do their practicum and observed the classes for their practicum course requirements. The sample size is too small for making generalizations on questions types preferred by teachers of EFL, but the main aim of the study is to gain a perspective on which question types are more preferred by EFL teachers and to adapt these findings into the field of EFL professional development.

The qualitative data were gathered from the observations of 11 student teachers by analyzing their findings in terms of questions asked by the teachers and their appropriate types in above mentioned theoretical perspective. The quantitative data were gathered from the analysis of the quantity of questions used by the EFL teachers in their classes which were observed by the student teachers.

## RESULTS

Effective questioning by the teacher is believed to focus on students' attention to understand lesson content, arouse their curiosity, stimulate their imagination, and motivate them to seek out new knowledge (Hussin, 2006), so in order to maintain student participation and efficient learning atmosphere, there should be a range of questions posing students activate their minds. What type of questions are implemented in a class necessities for an analysis for effective teaching. Table 1 shows the results of the study and answers Question 1 (Research Question) in terms of what question types were observed by senior student teachers in each school.

Table 1: Question Types (In Number)

Question Type	In School A	In School B	Total
Yes/No questions	16	20	36
Short answer/ retrieval-style questions	10	10	20
Open-ended questions	8	6	14
Display questions	4	8	12
Referential questions	6	4	10
Non-retrieval, imaginative questions	4	2	6
Total	48	50	98

Overall, the table shows that the most preferred question type is Yes/No questions with a total number 36 of 98. Though the schools are different in their types as private and state, there is not a big difference between the schools in terms of Yes/No question numbers. The reason for highly preference of Yes/No questions is pointed out by Thompson (1997) that they are generally more simple for learners to answer so these questions are more appropriate for weaker students. The table also shows that the least number in teacher questioning is asking Non-retrieval – imaginative questions with a total number of 6 in both schools. When it is compared, it is clearly seen that there is a great difference in distribution of Yes/No and Non-retrieval questions in the schools.

Table 2 below shows the distribution of questions in terms of what purposes they convey to answer Question 2. According to the classification of Richards & Lockhart (2000, p. 186), convergent questions serve for recalling background knowledge but not for requiring higher-level thinking and the table indicates that convergent questions are the most preferred questions with a total number of 52 which is also slightly more than double of divergent questions which compose 28 of total 98 questions posed in both schools. Procedural questions, which help teachers to have an order in the class in terms of classroom management and flow of teaching-learning process, are the last ones consisting of 18 of total 98 questions.

Table 2: Aims Of Questions (In Number)

Question Aims	In School A	In School B	Total
Procedural	8	10	18
Convergent	24	28	52
Divergent	16	12	28
Total	48	50	98

Table 3 refers to the third question of this study and shows that the most frequently used question type observed in both schools is Yes/No questions (36.73 %). Research about teachers' questioning in the class reveals that display questions are much more applied than referential questions and this study also reveals the same results though the frequency of the two types are close to each other as display questions compose 12.24 % of 98 questions while referential questions compose 10.20 % of all. This study also shows that second most preferred question type is short answer/retrieval style questions (20.42 %). The data of the study shows that the reason for asking this type of questions is that they require limited response and are not so challenging for students. 6.12 % of all questions (98) are non-retrieval, imaginative questions which has a 30 % difference with Yes/No questions in the study.

Table 3: Frequency Of Question Types (%)

Question Type	In School A	In School B	Total
Yes/No questions	33.33%	40%	36.73%
Short answer/ retrieval-style questions	20.83%	20%	20.42%
Open-ended questions	16.68%	12%	14.29%
Display questions	8.33%	16%	12.24%
Referential questions	12.50	8	10.20
Non-retrieval, imaginative questions	8.33	4	6.12

## DISCUSSION

Wajnry (1992) indicates that while teachers often plan their questions in terms of the lesson's content, they seem to place less emphasis on considering questions in terms of the cognitive and linguistic demands made on the learner. The results reveal that most preferred type of questions are Yes/No and short answer-retrieval style questions both of which put students into a passive, information seeker-receiver position in the class. These types of questions do not challenge students enough to think at higher levels of their cognitive capacity rather lead them to quick and cognitively limited responses. For Yes/No question type, Thompson (1997) proposes a different perspective pointing that a yes/no question (especially if the answer is fairly obvious or non controversial) encourages learners to accept a part in the interaction, even if they are shy or hesitant adding that for further practice follow-up questions should continue. However, the findings reveal that there is a limited interaction between these question types.

Display vs. referential comparison is another common issue in questioning. Dashwood (2005) also indicates that display questions are typical of teacher-fronted lessons in which transmission of knowledge from teacher to student is the expected form of interaction, adding that they are not therefore conducive to discussion. Referential questions, on the other hand, ask for knowledge interaction in the class requiring students activate their schema and process higher levels of thinking just as open-ended questions do.

Having 6.12 % of 98 questions, non-retrieval/imaginative questions take the last position in the study. It is clearly seen that though this type of questions is of great importance in learning process, they are not commonly preferred by teachers.

The findings show that in terms of the purposes teachers' questions convey in the class, convergent questions are mostly used ones with 52 in 98 questions. As this type of questions generally include Yes/No, short answer and display type questions, over use of convergent questions are not favored in EFL. On the contrary, divergent questions are more challenging ones including open-ended, referential and non-retrieval/imaginative questions. To provide a free production and active use of the target language, divergent questions are important and necessary means of classroom questioning.

## IMPLICATIONS

This study was a limited-scale research and therefore it needs to be improved and generalized to a greater number of teacher observation and classroom exploration in order to reach more language classes and reveal more findings to compare the ones presented in this study. As a small-scale research, the study suggests some implications for EFL teachers as follows:

1. Questioning is a highly prestigious teaching skill which requires a well planned lesson. In planning stages, teachers can prepare questions which completely analyze the content of lessons and engage students in active interaction during classroom participation.
2. There should be a variety of questions to be used in the class. Teachers should integrate all type of question as much as possible in teaching-learning context.
3. Teachers should try to lead students to higher-level thinking processes and ask them as many demanding questions as possible in order to arouse curiosity and interest to the lesson.
4. Non-retrieval, imaginative questions are also of great importance in primary schools when young learners are enthusiastic and willing in their process of developmental stages. They need an exposure to variety of attention gathering processes in the class and this kind of questions can get their attention and interest towards to the topic.
5. Research findings indicate that exposure to different learning instruments will enhance learning atmosphere and motivate students in engagement process. As an instrument, a good questioning strategy



can help teachers to create a learning context initiating communication and negotiation of meaning in the class and provide a dialogic process aiming students gain experiences of real-life situations.

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