

The Questions Teachers Ask

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1. Introduction

Teacher talk is of crucial importance, not only for the organisation and management of the classroom, but also for second language acquisition. It is important for the organisation and management of the classroom, because it is through language that teachers either succeed or fail to implement their teaching plans. In terms of acquisition, teacher talk is important because it is probably the major source of comprehensible target language input that the learner is likely to receive. Aspects of teacher talk which have been empirically investigated include the amount and type of teacher language, teacher explanations, error correction and feedback and questions. In this paper, I should like to focus on the research which has been carried out into teacher questions, and indicate how this work can inform and guide our understanding of classroom practices. Research findings are illustrated by classroom transcripts.

2. An Overview of Research

The questions teachers ask have been the focus of research attention in both content classrooms and language classrooms for many years. This is hardly surprising, given the importance of questions to pedagogy. (Questions are also relatively easy to observe, document and analyse, which might also explain their attraction for some researchers.) In their review of research on questions in content classrooms, Good and Brophy (1987) conclude that:

Unfortunately, in too many classrooms, discussions are parrot-like sessions, with teachers asking a question, receiving a student response, asking a question of a new student and so forth. Such "discussions" typically are boring and accomplish little other than the assessment of students' factual knowledge. Such assessment is important, but if that is all that is done in discussion, students may come to perceive that the teacher is interested only in finding out

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who knows the answers. When this occurs, discussion becomes a fragmented ritual rather than a meaningful, enjoyable process. Furthermore, students often do not perceive a clear logical sequence to factual questions. Such questions seem more like an oral test than a lesson intended to teach content or to engage students in a meaningful discussion. (p. 11)

Classroom research has also shown that certain types of questioning behaviour have persisted over many years. Borg et al. (1970) instance that the use of factual questions to determine whether or not students know basic information is far more frequent than higher-order questions which encourage students to reflect on their knowledge, attitudes and beliefs or which require them to follow through and justify a particular line of reasoning.

The following running sequence of teacher questions is extracted from a teacher-student exchange in which the teacher is trying to get the students to talk about an excursion they went on the previous week. It is worth noting that virtually all of the questions are "closed" requiring little more than yes/no or single-word responses from the students.

How are you?

Hello, Monica how are you?

Last Wednesday, you went to (name deleted) didn't you?

What did you do on Wednesday?

It was nice, was it?

Did you look at the animals?

What else?

Zdravko, did you go?

Was it good?

Can you draw it?

Is it small or big?

What did it do?

What did he teach you?

What did you do?

Mouse, mouse, mouse . . . erm . . . animal. Or was it insect?

Maria, what did you do at the weekend?

How old are your children?

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Did she take communion?
What did you do on the weekend?
What was the name of the park?
Did you watch television?
Do you watch "Hello, Australia?"
Have you seen the book?

3. Wait Time

In content classrooms, there has been considerable research on the length of time teachers wait after asking a question. This "wait time" research is predicated on the belief that it is important for students to have sufficient time to think about questions after they have been asked before attempting to answer them. Rowe (1974, 1986) found that teachers, on average, waited less than a second before calling on a student to respond, and that only a further second was then allowed for the student to answer before the teacher intervened, either supplying the required response themselves, rephrasing the question, or calling on some other student to respond.

Even when given specific training, some teachers never managed to extend their wait time beyond one or two seconds. In those classrooms where teachers did manage to wait from three to five seconds after asking a question, there was more participation by more students. In particular, the following effects were observed:

1. There was an increase in the average length of student responses.
2. Unsolicited, but appropriate, student responses increased.
3. Failures to respond decreased.
4. There was an increase in speculative responses.
5. There was an increase in student-to-student comparisons of data.
6. Inferential statements increased.
7. Student-initiated questions increased.
8. Students generally made a greater variety of verbal

In classroom extract 1 which follows, the length of time the teacher pauses after taking a question is indicated in brackets contributions to the lesson.

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("-1" indicates that she waits less than one second).

Extract 1

[The students have completed a listening comprehension exercise in which they have listened to a dialogue between two people who are about to go on a sightseeing excursion. They have also done a language exercise focusing on wh-questions for obtaining information about travel. The teacher moves to a side table and picks up a bundle of tourist brochures.]

T: Now, I'm going to give you some brochures about Victor Harbour [a seaside resort]. And we're going to look at what the brochure tells us—all right? It tell us . . . where it is, . . . how to get there, . . . how long it takes, . . . where do you catch the train, . . . and what you can do—when you get to Victor Harbour. OK?

[She walks around the room distributing the brochures to the students who are sitting in groups of three or four.]

T: . . . how many . . . four? Oh, wait a moment, and I'll see if I've got another one. Yep. Ah, one more?

[The students begin looking through the brochure.]

T: Now, first, can you see the little map? OK. It's easy to find Victor Harbour on this one. Now have a look at this page. OK? Can you see "timetable"? [Yeah.] Right? "Timetable"? Timetable. Right, you got it? Good. OK. And under "timetable," what does it say? (-2) It says "Operating days." "Operating days." What does that mean? (-1) When the train goes. All right? This special train . . . right? . . . you can see it on the front. This special train does not go every day. Right? Only on some days. Now, when can you catch this train? (-1) When can you catch the train? (-1) What does it tell you? (-1) Have a look.

[She leans over one of the students and points to his brochure.]

T: What day's that? (+4)

S1: Er, Sunday.

T: Sundays. Any other day?

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S2: Er, between June . . . and, er, August.

T: Yes. Yeah. And pub . . .

Ss: Public holiday.

T: What's a public holiday? (+2)

S3: Er, Christmas.

T: Exactly, Christmas, Easter, yep. OK. That's right. And . . . what else? (+2)

S3: Wednesday and Saturday.

T: Wednesdays and Saturdays . . .

S4: School holiday.

T: Yeah, OK, when it's school holidays, . . . on Wednesday and Saturday. Now, back to the timetable, where do you catch the train.

S1: Er, Kes-wick.

T: "Kessick," yeah, a funny English word—not Kes-wick, but "Kessick." You catch it at "Kessick." All right . . . Remember when we were listening to the tape, one of the people said, "I'll go to the tourist bureau." You know the tourist bureau? Special office. And get . . . [*She waves a brochure in the air*] . . . brochures, brochures. These're brochures. What do brochures tell you? (-1) What do brochures tell you? (+3)

S1: How can we, can catch the train, and . . .

T: That's right.

S1: . . . how much it, er, the ticket, cost.

In this extract, as indeed in the rest of the lesson from which it was taken, it is remarkable how often the teacher answers her own question having waited less than a second after asking it. In those instances when she waits more than two seconds, a student generally manages to respond.

The issue of wait time is obviously important in language classrooms, not only because of the greater processing time required to comprehend and interpret questions in a second or foreign language, but also because of the findings by Rowe (1974, 1986). If we believe that acquisition will be maximally facilitated when learners are pushed to the limits of their competence, then, on Rowe's evidence, wait time should be increased.

The limited amount of research on wait time in language

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classrooms has yielded mixed results. Shrum and Tech (1985) investigated French and German high school classes and came to similar conclusions as Rowe concerning the average length of wait time following questions. Specifically, they found that wait time following questions was less than two seconds. Long and Crookes (1986) report a similar finding in an investigation of ESL teachers in Hawaii. Holley and King (1971) found that when teachers of German were trained to increase their wait time, the length and complexity of student responses increased. The study by Long and Crookes found that increased wait time did not lead to greater mastery of content by ESL pupils, although this may have been due to the time scale of the study. If it had been conducted over a longer period of time, a significant result may have been yielded. Long and Crookes do not report whether increased wait time led to more participation or more complex language students.

4. Distribution of Questions

Another issue relevant to the management of learning concerns the distribution of questions. It is generally considered desirable to distribute questions among all students rather than restricting them to a select few. Good and Brophy (1987) say:

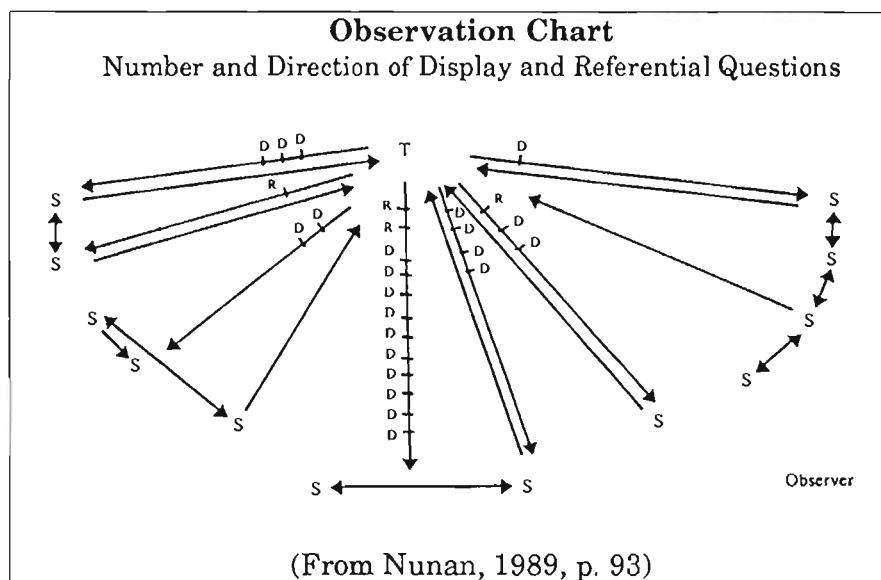
Students will learn more if they are actively engaged in discussions than if they sit passively day after day without participating. We all know reticent students who rarely participate in discussions but still get excellent grades, but most students benefit from opportunities to practice oral communication skills, and distributing response opportunities helps keep students attentive and accountable. (p. 495)

While most of us probably imagine that we are even-handed in our treatment of students, we might find, if we obtain an objective record of our teaching, that we favour certain students over others with our questions. Research shows that there is a great deal of variation in the chances offered to different pupils to speak in class. Jackson and Lahaderne (1967), for example, found that some students were up to 25 times more likely to be called to speak than others. Furthermore, it is generally the more able students who get called upon. If we accept that one

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learns to speak by speaking, this means that those most in need of the opportunity to speak are probably given the least amount of classroom talking time.

One way of monitoring this aspect of our teaching is to audiotape or videotape our teaching over several lessons, or get a friend or colleague to observe us, and note down the number of questions we direct to each student. (Techniques for doing this, through the use of seating chart observation records, are set out in Nunan, 1989.) Researchers have also found that there is a tendency for teachers to restrict their questions to certain "action zones" in the classroom (these are usually toward the front). The following observation chart shows the number and direction of display and referential questions directed by a teacher to his class. (Arrows toward the teacher [T] indicate responses. Arrows between students [S] indicate communication between students.) Most questions were posed to students directly in front of the teacher.



5. Display and Referential Questions

Another aspect of questioning behaviour which has received considerable attention in recent years is the use of display and referential questions. Display questions are those to which we know the answer (for example, when we hold up a book and ask, "Is this a book?") Referential questions, on the other hand, are those to which the asker does not know the answer.

In classrooms of all kinds, display questions are by far the most common. In contrast, they are virtually never asked in genuine communication outside the classroom (to begin asking display questions in social situations outside the classroom could lead to highly undesirable consequences).

Several investigations have been carried out into the use of display and referential questions in language classrooms. Brock (1986) discovered that teachers could be trained to increase the number of referential questions they ask, and that this prompted students to provide significantly longer and syntactically more complex responses. Nunan (1987) also found that the use of referential questions by the teacher resulted in more complex language by students. Student interaction was also more like natural discourse—that is, the type of discourse typical of out-of-class encounters:

The following features, which are characteristic of genuine communication, appear in the data: content-based topic nominations by learners; student-student interactions; an increase in the length and complexity of student turns; the negotiation of meaning by students and teacher, with a concomitant increase in the number of clarification requests and comprehension checks. There is even an instance of a student disagreeing with the teacher. (p. 143)

The extract which follows, illustrates what can happen when the teacher switches from asking display questions (sequence 1) to referential questions (sequence 2). As you read the extract, you might like to note the differences in learner output between the two interactions.

Extract 2

Sequence 1

[The teacher is working with a small group of students. She stands

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at the front of the classroom, while the students sit at desks. They are working with six pictures which show the following road accident. A milk van, swerving to avoid a dog which has run across the road, knocks a boy off his bicycle. A passer-by runs to a public telephone and calls an ambulance. Each student has a set of pictures which have been shuffled up so they are out of sequence.]

T: Can you put the pictures . . . number one, number two . . . ?

[She demonstrates what she wants to students to put the pictures in the sequence in which they think the incidents occur. The students do this quickly.]

T: Finished? Good, good, that was quick. Let me have a look.

[One student looks at the sequence which has been arranged by the person on his left.]

S: No, this one, you know, hospital, this one first, telephone, hospital, car.

T: [trying to get the student to self correct] This the same, same this? Look at picture number one.

S: Number one.

T: Yes, can you see, Hing? Where are they? Where is this?

Ss: Where are, where are, um, bicycle, bicycle.

T: The man's on a bicycle, mmm.

S: And a man behind, behind a car. Bicycle behind a car. Behind a car.

T: What's the name of this? What's the name? Not in Chinese.

Ss: Van. Van.

T: Van. What's in the back of the van?

Ss: Milk, milk.

T: A milk van.

S: Milk van.

T: What's this man? . . . Driver.

S: Driver.

T: The driver.

S: The driver.

T: The milkman.

S: Millman.

T: Milkman.

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Ss: Milkman.

T: [*pointing to one of the pictures*] Where are they?

S: Where are they?

T: Where are they? Inside, outside?

S: Department.

T: Department?

S: Department store.

T: Mmmm [*her intonation indicating that the answer is not quite what she expects*] Supermarket. They're in the street. In the street. They're in the street. Outside. They're in the street. The bicycle and the van—where are they? Where are they? What's this?

Ss: Street.

T: In the street [*She indicates to one of the pictures.*] OK, is this a man or a woman.

Ss: Man.

T: A Man?

Ss: Woman. Woman. Man. No man.

T: She's a woman there.

Ss: Woman. Woman. Man. Woman.

Sequence 2

[*The students and teacher are sitting in a circle.*]

T: Da Sheng, have you been in an accident?

S: No.

T: No? Good! Lucky.

S: Lucky.

[*The other students laugh.*]

T: Seng?

S: No.

T: No? Little?

S: No.

T: No? You must be a good driver.

[*There is more laughter from the students.*]

S: No good driver!

T: No? May Yu?

S: No.

T: No? Heng?

S: No.

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T: No? I have. I have been in one, two, three.

[There is a short pause.]

S: My mother is by bicycle... by bicycle, yes, many, many water.

T: She had an accident?

S: In China, my mother is a teacher, my father is a teacher.

Oh, she go finish by bicycle, er, got to . . .

S: House?

S: No house, go to . . .

S: School?

S: No school. My mother . . .

T: Mmm.

S: Go to her mother.

T: Oh, your grandmother.

S: Grandmother. On, yes, by bicycle . . . By bicycle, oh, is um, accident. *[She gestures.]*

T: In water?

S: In water, yeah.

T: In a river?

S: *[Nods]* River, yeah, river . . . Oh yes, um dead.

Ss: Dead! Dear! Oh!

T: Dead? You mother?

[There is general consternation as the students repeat the story to each other.]²

The basic difference between the two sequences is that the first is driven by a series of display questions, whereas the second is initiated by questions from the teacher to which she does not know the answer. This, as can be seen, has a marked effect on the language produced by the students. In general, the length and complexity of the responses increases. In interactional and discourse terms there are also notable differences: students initiate interactions, nominate topics, disagree with the teacher, and generally use a greater range of language functions.

Not all researchers agree that the distinction between display and referential questions is a useful one. Van Lier (1988), for example, argues that the distinction is irrelevant as the function of the teacher questions is to elicit learner language, and from this perspective whether or not teachers already know the answer to

the question is irrelevant.

6. Elicitation

Elicitation is another common function of classroom teacher questions. Elicitation methods are designed to extract from students information which might otherwise have been provided by the teacher. In Extract 3, the teacher misses few opportunities to extract information from the learners rather than giving it to them. While this can be an effective techniques for engaging learners productively in the lesson, it can be overdone.

Extract 3

[The teacher and students are discussing a forthcoming classroom test, about which the students are seeking some additional clarification.]

T: The questions will be on different subjects, so, er, well, one will be about, er, well, some of the questions will be about politics and some of them will be about, er . . . what?

S: History.

T: History. Yes, politics and history and, um, and. . . ?

S: Grammar.

T: Grammar's good, yes . . . but the grammar questions were too easy.

Ss: No. Yes, ha, like before. You can use . . .

T: Why? . . . The hardest grammar question I could think up—the hardest one, I wasn't even sure about the answer, and you got it.

S: Yes.

T: Really, I'm going to have to go to a professor and ask him to make questions for this class. Grammar questions that Azzam can't answer. *[Laughter]* Anyway, that's, um, Thursday . . . yeah, Thursday. Ah, but today, er, we're going to do something different . . .

S: Yes . . .

T: . . . today, er, we're going to do something where we, er, listen to a conversation—er, in fact, we're not going to listen to one conversation. How many conversations're we going to listen to?

S: Three?

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T: How do you know?

S: Because, er, you will need, er, three tapes and three points.

T: Three?

S: Points.

T: What?

S: Power points.

T: Power points. If I need three power points and three tape recorders, you correctly assume that I'm going to give you three conversations, and that's true. And all the conversations will be different, but they will all be on the same. . . ?

Ss: Subject. Subject.

T: The same?

Ss: Subject. Subject.

T: Right, they'll all be on the same subject. Different conversations, but the same subject. And so, I'm going to later in the lesson divide the class into three. . . ?

S: Groups.

T: Right! And each group, each group. . . ?

S: Listens.

T: Ah huh!

S: Listen to tape.

T: Listens to a tape. Each group?

S: Will listen to conversation. One conversation.

T: Right. OK. That's right/ And I'm going to give you a piece of paper, and, er, I'm going to ask each group to, er. . . .

S: Write.

T: Write. Write what?

S: Question?

S: Listen.

T: Write about?

S: Comprehension.

T: What they . . . ?

S: What they listen.

T: What they?

S: Will listen.

S: Heard.

T: [*Giving up*] Yes, OK, write about what they listened to.

7. Classroom Observation and Research

Fifteen years ago, Stenhouse (1975) suggested that it was not enough for teacher work to be studied, they need to study it themselves. More recently, Larsen-Freeman and Long (1988) have written:

There is a growing amount of attention these days being given to teacher-initiated action research whose intent is to help gain new understanding of and, hence, enhance their teaching. Action research usually involves a cycle of self-observation or reflection, identification of an aspect of classroom behaviour to be investigated, and selection of appropriate procedures to investigate and interpret behaviour. (p. 2)

The attention action research is receiving gives us cause for optimism. We hope that someday all language teacher preparation programs will implement a "train-the-teacher-as-classroom-researcher" component (Long, 1980). If such a development were to ensue, eventually we might find language teachers less vulnerable to the vicissitudes of language teaching fashion and more willing to rely on the power of their own research. (Larsen-Freeman and Long forthcoming)

The area of teacher talk in general, and questions in particular, provides many excellent opportunities for teachers to carry out small scale observation and action research investigations in their own classrooms. These can relate to any of the issues we have already looked at including the amount and type of talk, error correction and feedback, digressions, explanations, questions and so on. In this section, I shall provide some brief illustrations of investigations which might be carried out.

1. Record one of your lessons and investigate the issue of wait time. How long do you wait after asking questions? What percentage of questions do you answer yourself? Make a list of the strategies you adopt when students fail to respond, or fail to provide the required response.
2. Audiotape or videotape a lesson (alternatively, get a colleague to sit in on your lesson and record the distribution of questions). Does the record show that you favour

certain students over others? Are these the better students? In mixed classes, do you favour male students over female students or vice versa? Do you tend to direct your questions to one part of the room rather than another? Do you think you should modify your practice as a result of your investigation?

3. When working with a small group of students, try varying your questions from display, to referential questions and back to display questions. Does this have any effect on the type of language used by learners in their responses?

8. Conclusion

In this paper we have looked at some of the theoretical, empirical and practical issues surrounding teachers' use of questions in the language classroom. We have looked at question types, wait time, the distribution of questions, display versus referential questions, and the use of questions as an elicitation device. Recent research into teacher questions is summarised, and the discussion is informed by several extracts from the language classrooms. The practical implications of the research are also discussed, and in the final section, it is suggested that teacher talk can be fruitfully investigated by teachers in their own classrooms, through small-scale action research projects.

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Notes

¹I am grateful to Jill Burton who provided the transcript from which these questions were taken.

²These two sequences have been taken from Nunan, 1989.

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