

JURNAL SOSIAL HUMANIORA DAN PENDIDIKAN

Halaman Jurnal: <http://journal.stiestekom.ac.id/index.php/Education>

Halaman Utama : <http://journal.stiestekom.ac.id/index.php>

THE QUESTIONS USED BY THE NON-ENGLISH TEACHERS AND THE STUDENTS' RESPONSES

Elvi Titik Ziah S.

Sekolah Tinggi Teknik Pati
Jl. Raya Pati-Trangkil KM.4 Pati, elvititikziahs@gmail.com

ABSTRACT

This study addresses three major problems: (1) Which type(s) of questions are asked by the teachers to the students at *Tunas Harapan* Vocational senior High School of Pati? (2) What levels of questions are related in those types of questions? (3) How effective are the questions given by the teachers? The qualitative approach was used to explore the implementation of teachers' questions. Afterwards, the students' responses were analysed to describe the interaction between them and teachers. The subjects of this study were the Math, Chemistry and welding teachers and the machine department students. Each teacher was recorded during the teaching and learning process. The result shows that they more frequently used the divergent questions to encourage students to give responses and require students to engage in higher level cognition. They dominantly used lower levels of cognition such as *understanding* and *applying*. Referring to the students' responses it could be categorized that the questions given by the teachers were effective for the students since more than 50% of the students answered "yes" from the questionnaire given, supported with the rubric of NYSUT's Teacher Practice.

Keywords: classroom questioning, questions, students' responses

ABSTRAK

Penelitian ini membahas tiga masalah utama: (1) Jenis pertanyaan apa yang diajukan oleh guru kepada siswa di SMK Tunas Harapan Pati? (2) Tingkat pertanyaan apa yang terkait dengan jenis pertanyaan tersebut? (3) Seberapa efektif pertanyaan yang diberikan oleh guru?. Pendekatan kualitatif digunakan untuk mengeksplorasi implementasi pertanyaan guru. Setelah itu, tanggapan siswa dianalisis untuk menggambarkan interaksi antara mereka dan guru. Subyek penelitian ini adalah guru Matematika, Kimia dan pengelasan serta siswa jurusan pemesinan. Setiap guru direkam selama proses belajar mengajar. Hasil penelitian menunjukkan bahwa mereka lebih sering menggunakan pertanyaan divergen untuk mendorong siswa memberikan tanggapan dan menuntut siswa untuk terlibat dalam kognisi tingkat yang lebih tinggi. Guru secara dominan menggunakan tingkat kognisi yang lebih rendah seperti memahami dan menerapkan. Mengacu pada jawaban siswa, dapat dikategorikan bahwa pertanyaan yang diberikan guru efektif untuk siswa karena lebih dari 50% siswa menjawab "ya" dari angket yang diberikan, didukung dengan rubrik *NYSUT's Teacher Practice*.

Kata kunci: tanya jawab di kelas, pertanyaan, tanggapan siswa

INTRODUCTION

There have been many programs carried out by the government in order to improve the quality of the Indonesian students' education. One of them is in improving the students' ability to communicate in the spoken and written English as stated from Law No.20 of 2003 on National Education Systems point 50 number 3. (MONE, 2003)

Vocational Senior High School Tunas Harapan Pati keeps going to such kind of the Internationally competitive school. It is as stated at the school's vision "*sekolah unggul berdaya saing Internasional dan berwawasan pancasila, berbudaya industri, dan berwawasan lingkungan*". One of the ways the school does to realize is by using English to deliver some subjects except Indonesian and Javanese Subjects. It is a bilingual class intended in which some subjects (Mathematics, Physics, Biology, Chemistry) are delivered to the students in English and especially in vocational Senior High School, the productive subjects such as welding, engineering etc. are also delivered in English. This class will equip the students with the ability to communicate in English both oral and written skills, which will become the gate of science and technology mastery.

In the classrooms delivered using English, teachers' language is not only the object of the course, but also the medium to achieve the teaching objective. Teacher's talk plays an important role in English as a Foreign Language (EFL) classroom, which are both the model of students' acquiring target language and means of classroom management (Daud, 2021). Teachers pass on knowledge and skills, organize teaching activities and help students practice through teacher's talk. In the classrooms delivered using English, teachers' language is not only the object of the course, but also the medium to achieve the teaching objective. Both the organization of the classroom and the goal of teaching are achieved through teacher's talk. (Ideas et al., 2020) Purposeful and encouraging teacher's talk will contribute the students learning the second or foreign language (Ninla Elmawati Falabiba, 2021)

An important element of teacher talk is questioning. To stimulate the students' communication skills, the teacher can use questioning by giving the students a chance to ask or answer the questions (feedback) (Nashruddin & Rahmawati Ningtyas, 2020). Although questioning skill is not the first important thing. But, this skill can be used by the teacher in teaching learning process to make the teaching learning process

running well. The teacher should select appropriate types of questions; those are yes/no question and information question to be used in teaching learning process. He has to know the purposes of question such as; question is used to verify students' recollection of facts which are essential for the understanding of concepts, questions are used to verify the understanding of ideas, concepts, and generalizations, questions are used to find examples of abstract concepts or use of rules, questions require students to think critically and in depth, questions are used to stimulate critical thinking in a complex manner and questions require students to perform original and creative thinking of his questions, and to whom question addressed. Question is important for us to ask. The question can be used to get more information. Question also can be used by the teacher to measure his students' understanding about the material what they have learnt.

This is a commonsense view of learning that has implications for how to teach-such as presenting information to learners in books and lectures to see how much of the presented material students can remember. Questioning is one of the ways in presenting the material given to the students. The essential of this research is based on Bloom's Taxonomy of the Cognitive Domain as follow six level of the purpose of question such as knowledge, comprehension, application, analysis, synthesis and evaluation (Apriani & Marchelina, 2018). The researcher observed kinds of this question that the teacher applied in the class in also what is the student's perception.

Based on the argument above, the teacher should use his/her questions to attract the students' attention, curiosity, and interest to the material, provide an opportunity for the students to assimilate and reflect on information, and express ideas and feeling. Therefore it is very useful for the teacher to know the technique of using questions to maintain interaction with the students. Consciously and unconsciously, the teacher has applied the skill of questioning in their classroom in which the teacher uses the communicative approach to make two ways of communication between him/her with the students. The teacher has his/her own way to ask questions and give different reaction to the students' answers. Due to the fact, it was found out the types as well as the levels of the questioning skills used by the teachers and students' responses to maintain interaction with the students through the classroom record conducted at *Tunas Harapan* Vocational Senior High School of Pati. It

showed how the teachers asked questions whether in low or high level, and checked the effectiveness of those questions to the students' responses. It was believed that through these questions, teachers could help students to develop their thinking from the concrete and factual to the analytical and evaluative.

Nasrudin & Ningtyas (2020) made a research about types of questions, strategy of questions and questions' reasons. They concluded that questions can succeed if the teacher can apply it in a good and appropriate manner that makes the interaction and communication between the teacher and the students more reachable (Nashruddin & Rahmawati Ningtyas, 2020).

While Gultom & Anggrian in 2021 did the research about the implementation of cognitive levels of questions (C) based on Bloom's revised taxonomy. The teacher was mostly dominant using (T8) technique that is to push the participation of the students. The least (T1) and (T7) techniques were applied by the teacher to direct the students' answer and give time to think before answering the questions. Also the teacher cognitively asked questions on level (C1) that is remembering more often. Only 3 questions were applied in level (C4) analyzing and (C6) creating to recognize the students' HOTs level (Gultom et al., 2021).

In 2021 Kholisoh and Bharati led the investigation strategies of teachers' questioning and perceptions of students toward critical questions in EFL classroom interaction. They found that strategy of questioning toward critical questions is depended on the skill of questioning the teacher has. They also found that the teacher applied critical questions without considering the students ability in answering their questions (Kholisoh et al., 2021).

This research is different from the previous ones since it is aimed to know the effectiveness of the students' responses based on the level and the type of the teachers' questions asked by the non-English teachers.

REVIEW OF RELATED LITERATURE

A question could be used by the teacher to attract the students' attention by giving the students stimuli to be responded. There will be teacher-students interaction as the consequence of question and answer given by them (Vebriyanto, 2015). Questions are normally put or asked using interrogative sentences. However, they can also be put by imperative sentences, which normally express commands: "Tell me what $2 + 2$ is!"

conversely, some expressions, such as "Would you pass the butter?" have the grammatical form of questions but function as requests for action, not for answers (Gultom et al., 2021)

What are the purposes of teachers' classroom questions? A variety of purposes emerge from analysis of the literature, including:

- a. To develop interest and motivate students to become actively involved in lessons
- b. To evaluate students' preparation and check on homework or seatwork completion
- c. To develop critical thinking skills and inquiring attitudes
- d. To review and summarize previous lessons
- e. To nurture insights by exposing new relationships
- f. To assess achievement of instructional goals and objectives
- g. To stimulate students to pursue knowledge on their own

Types of Questions

Choosing what kinds of questions to ask depends on the function of the questions. There are three kinds of questions: procedural, convergent, and divergent. (Apriani & Marchelina, 2018)(Susantara & Myartawan, 2020)

1. Procedural questions:

Procedural questions have to do with classroom procedures and routines, and classroom management, as opposed to the content of learning. These questions are given when teacher checks students' assignments. For instance:

Have you done your homework?

Do you understand what I want to do?

Everybody brings dictionaries?

Procedural questions have different function from questions designed to help students master the content of a lesson. These questions, which are designed to engage students in the content of the lesson, to facilitate their comprehension, and to promote classroom interaction are classified into two types of questions: *convergent questions and divergent questions*.

2. Convergent questions

Convergent questions encourage students' responses which focus on a central theme. These responses are often short answers, such as "yes" or "no" or short statements. Therefore, it does not require students to engage in higher level of cognitive thinking. Teacher only focuses on the recall information. For example, the following questions show convergent questions:

How many of you have a pet at your home?
Do you feed it every day?
When do you usually feed it?

3. Divergent questions

Divergent questions encourage diverse students' responses which are not short answers and require students to engage in higher level of thinking. It encourages students to provide their own information rather than recall information. The following are the examples of divergent questions::

What is your pet given to you?
Why do you like keeping pets at home?
Do you think pets give more positive or negative impact in your life?

This type of questions is expected to be given to the students in order to use their own ideas, opinions as well as critical thinking effectively.

Levels of Questions

At the first time, in 1956, Bloom introduced his Taxonomy of cognitive Objectives which was well-known as Bloom's Taxonomy. Bloom's Taxonomy means a classification of thinking organized by level of complexity. It gives teachers and students an opportunity to learn and practice a range of thinking and provide a simple structure for many different kinds of questions and thinking. In his research, he found that over 95% of the test questions for students require them to think only at the lowest possible level, that is the recall of information (Anderson & Krathwohl 2001).

Bloom et al defined question level classifications into six categories as follow:

1. Remembering

The purpose in using this type of question is to know facts, data, or information that the students have. Usually, the teacher uses the words such as; "who", "what", "when", "where", "how", or "describe..." dealing with this question category. It exhibits memory of previously learned material by recalling fundamental facts, terms, basic concepts and answers about the selection.

2. Understanding

It demonstrates understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptors and stating main ideas. It is about the students' understanding about material given by the teacher. The teacher may ask them to retell the story, describe something in their own words, or interpret any idea being discussed. For example: How would you classify the type of...? How would you compare...? Contrast...? Will you state or interpret in your own words...?

3. Applying

By answering this type of question, students could use facts. Rules and principles solve problems, and apply information to produce some result. The examples are "how is...an example of...?" "how is...related to...?" "why is...significant?"

4. Analyzing

Dealing with this kind of question, the students may subdivide something to show how it is put together, finding the underlying structure of a communication, identifying motives, and separate of a whole into component parts. The examples are "What are the parts or features of...?" "Classify...according to..."

5. Evaluating

This is the strategy to make the students able to combine ideas to form a new one and create a unique and original product. The teacher may use questions such as; "What would you infer from...?" "What ideas can you add to...?" "How would you design a new...?" "What would happen if you combine...?"

6. Creating

In this category, the teacher asks the students to make decisions and judgments about issues, develop opinions, and resolve controversies or differences of opinion. The questions used can be "Do you agree that...?" "What do you think about...?" "What is the most important...?" "Place the following in order of priority...!" "How would you decide about...?" or "What criteria would you use to assess...?"

(Ramadhani & Zainil, 2019)

Students' Responses

Agreeing to Chaudron statement, Sinclair and Coulthard as cited in (Saswati, 2019) notes that classroom interaction is mainly realized by IRF (teacher's initiate, students' respond, teacher's feedback) structure. IRF structure is a characteristic of teacher-led interaction, in which the teacher asks a question or provides information (I), the student respond or react (R), and the teacher provides some comment or evaluation (F). In this model, teacher often initiates interaction by asking questions. Therefore, the teacher takes control of the lesson content and management (Lini Diora, 2013).

Relating to the IRF structure discussed previously, when teacher provides a question, there will be a response from students. This response is classified into students' talks. According to Chaudron, 1988 as cited by Ambarwati, students'

talks in the classroom interaction are divided into eight responses. They are as follows:

1. Specific student response

Students respond to the teacher within a specific and limited range of available or previously shaped answers. The example of this response is the activity of reading aloud in which teacher ask students to read aloud the text.

2. Choral student response

Choral response is provided by the total class or part of the class.

3. Open-ended or student-initiated response

Open-ended or student-initiated response relates to the responding to the teacher with students' own ideas, opinions, reactions, and feelings. This response deals with a response to higher level of cognitive questions. Since these questions require students to think in higher cognitive level of thinking, for instances using their own ideas and opinions.

4. Silence

Silence refers to pauses in the interaction of periods of quiet during which there is no verbal interaction.

5. Silence-AV

Silence in the interaction during which a piece of audio-visual equipment, e.g., a tape recorder, filmstrip projector, record player, etc., is being used to communicate.

6. Work-oriented confusion

Work-oriented confusion happens when more than one person at a time are talking, so the interaction cannot be recorded. Students call out excitedly, eager to participate or respond, concerned with task at hand.

7. Non-work-oriented confusion

This non-work-oriented confusion occurs when more than one person at a time are talking, so the interaction cannot be recorded. Students are out-of-order, not behaving as the teacher wishes, not concerned with task at hand.

8. Laughter

This is the expression of laughing, giggling by the class, individuals, and/or the teacher. The expressions of laughter are divided into two kinds. They are as follows:

- (a) Uses English: Use of English (the native language) by the teacher or the students.
- (b) Non verbal: Nonverbal gestures or facial expressions by the teacher or the student which communicate without the use of words. This category is always combined with one of the categories of teacher or pupil behaviour (Ambarwati, n.d.)

Based on the categorization of students' talks above, it can be seen that students have an important role in the classroom interaction by giving responses to build the interaction between teacher and students effectively. Therefore, to find out general description of the students' responses in this study, the researcher specified the above students' responses into six categorizations. The categorizations are specific student response, choral student response, open-ended or student-initiated student response, silence, confusion, and laughter.

METHOD

The approach of the study is qualitative approach. It is called qualitative research because it is conducted in natural setting and the analysis is interpretive. The key instrument of data collection is the researcher (Ramadhani & Zainil, 2019). Therefore, it is important to get the most accurate data because it will determine the quality of the research. In addition, this is a qualitative study because the data are collected in the form of words (Vebriyanto, 2015).

The subjects of the study were 3 non-English teachers, the Math teacher, the Chemistry teacher and the Welding teacher and the 20 students of Machine department four at the tenth grade of *Tunas Harapan* Vocational Senior High School of Pati.

Type of the data of this study is the conversation between the teacher and students during the teaching learning process in the class room. These conversations were then transferred into the form of transcription. In this research recording, observation and questionnaire are used as the instruments to collect the data. The questionnaire is a widely used and useful instrument for collecting survey information, providing structured often numerical data, being able to be administered without the presence of the researcher (Kholisoh et al., 2021). The purpose of the questionnaire is to find out the students' opinion about the questioning process and teacher's performance in their classroom (Afif & Fatimah, 2020). Before the questionnaire is used, It is tried it out to the 20 students of Machine department two at the tenth grade of *Tunas Harapan* Vocational Senior High School of Pati to find out the validity. From the students' responses showed that it was answerable and understandable which means that it can be used to be given to the students being researched.

FINDING AND DISCUSSION

1. Types of Teacher's Questions during Teaching Learning Process

The recording of teacher students interactions were transferred into transcription. After that, the categorizing of the teachers' types of questions was made. The results were, then, presented in the table.

Table 1
Data Presentation of Teachers' Types of Questions

From the table above, it can be seen that the Math teacher and the Chemistry teacher used divergent questions more frequently. It means that they required students to engage in higher level of cognitive thinking. While the Welding teacher used the Convergent questions which means that he tried to encourage his students to respond to the central theme being discussed.

The detailed results analysis of teachers' types questions are discussed in the following explanation.

Procedural Questions

Based on the table 1, it is shown that the Math teacher used two times from the total of thirty five questions of the procedural questions (5,7%). The examples of procedural questions can be seen as follows.

(1) T : Anybody willing to clean the white board?

(2) T : Can I clean the whiteboard?

Here, in quotation (1) and two the teacher asked the student to clean the whiteboard and ignored the procedural questions such as asking about students' conditions and checking the students' home works.

The second teacher, the Chemistry one used eleven times from the total of forty eight procedural questions. It was 22,9%. Here are the examples.

(1) T : Who doesn't come today?

(2) T : Do you already have your pair?

(3) T : Are you ready?

(4) T : Does anyone have it turn?

(5) T : Do you have your turn?

From the quotations, it can be seen that the Chemistry teacher asked procedural questions effectively. These questions are used to do with classroom procedures and routines. She used procedural questions to manage the classroom through asking students' attendance and checking their readiness. She used the highest frequency than the other teachers.

The last teacher was the Welding teacher. In here, he used the procedural questions two times from the total questions of fifty one times (3,9%). Here are the examples of his procedural questions:

(1) T : How are you all today?

(2) T : What is your name?

The welding teacher used the least frequency of procedural questions. He only asked the condition of the students and once asked the name of the student when he asked his student to

Teacher	Total teacher's questions	Types of questions			
		Procedural	Convergent	Divergent	
Math Teacher	35	2 5,7%	11 31,4%	22 62,9%	
Chemistry Teacher	48	11 22,9%	7 14,6%	30 62,5%	
Welding Teacher	51	2 3,9%	28 54,9%	21 41,2%	

do the exercise.

Convergent Questions

In this study, the most commonly questions given by the Welding teacher was convergent questions. The result of analysis shows that the total convergent questions are 54,9%. During teaching learning process, the teacher attempted to engage students in the content of lesson, to facilitate students' comprehension and understanding.

Furthermore, the Chemistry teacher used the least frequency of convergent questions (14,6%) and the Math teacher used eleven times from the total questions of thirty five questions (31,4%).

In here, the Math teacher used convergent questions to check the students' understanding and correctness of the answers from the students. In line with the Math teacher, the Chemistry teacher only used convergent questions to check the students' understanding.

Divergent Questions

From table 1, we can see that mostly the teachers spent their times to ask divergent questions. The results of analysis show that the total divergent questions used by the Math teacher was the highest one that was 62,9%. The Chemistry teacher used mostly the same with the Math teacher that was 62,5% and the Welding teacher asked the lowest frequency 41,2%.

When using the divergent questions, the teachers were trying to encourage diverse student responses which were not short answers and which required students to engage in higher level thinking. Here are the examples of divergent questions:

(1) Math T : What will you do if you meet the question like this?

Simplify three divided by the square root of five?

(2) Chemistry T : So what do you think about this?

This is an acid or a base?

Is it an acid or a base? What do you think?

(3) Welding T : Why the symbol is beneath the reference line?

Anybody explain this picture?

From the quotation above, we can see that those questions encouraged the students to provide their own information rather than recall information.

Furthermore, to answer the first question of this study that is to describe types of questions used by the teachers, it can be seen that the teachers mostly used divergent questions rather than procedural and convergent question.

2. Levels of Teacher's Questions during Teaching Learning Process

In giving questions, the teacher gave attention to the effectiveness of the questions. In this case, the teacher gave the simple question to get the information needed. In the next step, the level of question would be raised, to the more difficult one in order to get the maximum answer and to improve students' creativity. The change of questions level used by the teachers was based on Bloom's Taxonomy of the Cognitive Domain (Anderson: 2001).

The results were, then, presented in Table 2 to represent the Math, Chemistry and Welding teachers' levels of questions

Table 2
Data Presentation of Teachers' Levels of Questions

Teacher	Total teacher's questions	Levels of questions									
		Remembering	Understanding	Applying	Analyzing	Evaluating	Creating				
Math Teacher	35	2 5,7%	22 62,9%	10 28,6%	1 2,9%	-	-				
Chemistry Teacher	48	11 22,9%	15 31,3%	20 41,7%	2 4,1%	-	-				
Welding Teacher	51	2 3,9%	44 86,3%	2 3,9%	3 5,9%	-	-				

From the table above, it can be seen that all the teachers didn't ask questions in Evaluating and Creating levels. It seemed that the teachers were still difficult in using those kinds of levels since it needs justifying a decision and generating new ideas, products, or ways of viewing things from the students. It also needs a higher level of thinking. The teachers were mostly used the four levels, they were remembering, understanding, applying and analysing. It would be described in details in the following explanation.

Remembering Level

Based on Table 2, it can be seen that the Math teacher used remembering level two times from the total questions of thirty five (5,7%). In comparison with the Chemistry teacher, she used

eleven times of the total forty eight questions (22,9%) and 3,9% or two times of the total questions fifty one. It can be categorized that the Chemistry teacher used remembering level more frequency than the other teachers. She used this level to retrieve relevant knowledge from long term memory. The examples of remembering level are as follows:

(1) T : Who doesn't come today?

(2) T : Who fulfill this table?

Understanding Level

In this study, the most commonly questions given by the teachers were in the level of understanding. The result of analysis shows that the total of understanding level of questions given by the Math teacher was 62,9%, the Chemistry teacher was 31,3% and the Welding teacher surprisingly gave the

questions in understanding level up to 86,3%. It means that he used the highest total of understanding level rather than the other teachers and even he dominated using understanding level in the teaching and learning process rather than the other levels.

The following are the examples of remembering level:

- (1) T : Do you understand?
- (2) T : What is the meaning butt weld?
- (3) T : Is it correct?
- (4) T : Anybody knows?
- (5) T : You know right angle?

When using understanding level, the teachers were trying the students to construct meaning from instructional messages including oral, written and graphic communication.

Applying Level

In this study, the teachers gave different Applying levels of questions. It can be categorized that the teachers used hardly frequency of this level. The result of analysis shows that the total of applying level of questions given by the Math teacher was 28,6%, the Chemistry teacher was 41,7% and the Welding teacher gave the questions in applying level only 3,9%. It means that he used the lowest total of applying level rather than the other teachers. In this study also stated that the Chemistry teacher dominated using applying level in the teaching and learning process rather than the other levels.

The following are the examples of applying level:

- (1) T : Simplify three divided by the square root of five?
- (2) T : Five multiply the square root of two is?
- (3) T : It is donate or accept?

Based on the data calculation in table 3, the researcher concluded that students' responses to the teachers are dominated by choral student response. The total of choral student responses given to the Math teacher was twenty responses, thirty three responses given to the Chemistry teacher and twenty seven responses given to the Welding teacher. It means that the total of choral student response is eighty responses.

When the teachers asked questions to the students in low level of cognitive questions, they answered with short answer chorally. Moreover, when the teachers asked in higher level of cognitive

questions, the students kept silent. They didn't provide answers. In all recordings, the students responded to the teachers' questions with yes or no answers. This can be stated that the students were lack of speaking skill. The results study of students' responses to the teachers' questions would be described in details in the following explanation.

Specific Student Response

This response was given by the students to the teachers within a specific and limited range of available or previously shaped answer. In this study, the examples of these responses were as follows:

- (1) Teacher : The same answer with you?
Student : Yes
- (2) Teacher : Do you already have your pair?
Student : Yes
- (3) Teacher : What is your name?
Student : *Dwi Wijayanto*

From the quotation above, the teachers asked the questions that only needed a very short answer. Here, they gave responses by saying yes and telling his name. In this case, the teachers should encourage the students not only provide short responses, but also provide responses which needed more explanation in order they could use their own thinking.

Choral Student Response

When using applying level, the teachers were trying the students to implement or use information in a context different from the one in which it was learned.

Analyzing Level

In this study showed that the teachers used the analyzing level as the highest level in their questions level. Even though the theory states that there are still two higher levels more the teachers should use, they are evaluating and creating level.

From table 2, we can see that the teachers used very hardly frequency of analyzing level. The Math teacher only used 2, 9% that it can be categorized he used the lowest total of analyzing level compared with other teachers and other levels he used during his teaching and learning process. In line with the Math teacher, the Chemistry teacher used only 4, 1% that it could also be seen she used the lowest total of analyzing level compared with the other levels she used during teaching and learning process. On the contrary, the Welding teacher in this study showed that he used the highest total of analyzing level when teaching.

3. Students' Responses to the Teachers' Questions

To find out students' responses in the English classroom, the researcher identified and categorized the transcription into students' responses. The categorizations, were then, classified into six categorizations of students'

responses based on Chaudron, 1988 as cited by (Saswati, 2019). After they were categorized, they made a table to sum up the calculation of students' responses that happened during teaching and learning process. The table was arranged to make the readers easier in getting information about the result of the study.

Table 3
Data Presentation of Students' Responses

No	Categorizations of students' responses	The total number of students' Responses			Total
		Math Teacher	Chemistry Teacher	Welding Teacher	
1.	Specific students response	1	6	4	11
2.	Choral students response	20	33	27	80
3.	Open-ended or student-initiated student response	-	-	-	-
4.	Silence	10	3	12	25
5.	Confusion	4	6	8	18
6.	Laughter	-	-	-	-

In this study, choral response was provided by the total class and part of the class. The examples were as follows:

- (1) Teacher : Do you understand?
Students : Yes
- (2) Teacher : Finish?
Students : Yes
- (3) Teacher : How about the answer number one, correct or incorrect?
Students : Correct

In this case, the quotations showed that the teachers tried to ask questions for the whole class and part of the class. The responses given by the students were short answers that were "yes" and "correct" answer. This response was often happened during teaching learning process when the students did not know the answers or even did not understand the material given.

Open-ended or Student-Initiated Student Response

Open-ended or Student-Initiated Student Responses were provided to respond the teachers' questions with students' own ideas, opinions, reactions, feelings. In this study, unfortunately none of the students gave open-ended or student-initiated student response to the teachers. From this result, it can be stated that their speaking skill is too low.

Silence

Silence refers to pauses in the interaction of periods of quite during which there is no verbal interaction. Silence responses were shown in the following quotations:

- (1) Teacher : How about your answer?
Students : (keep silent)
- (2) Teacher : What do you think?
Student : (keep silent)
- (3) Teacher : COH, acid or base?
Students : (keep silent)

It showed that the students did not provide any responses related to the teachers' questions. It seemed that the interaction between the teachers and the students did not work effectively.

Confusion

Confusion is divided into work-oriented confusion and non-work-oriented confusion. In this study, work-oriented confusion happened when more than one student at a time are talking, so the interaction could not be recorded. Students called out excitedly, eager to participate or respond, concerned with task at hand. The examples are shown in the following quotations:

- (1) Teacher : Do you know sour?
Students : (confused)
- (2) Teacher : Is it an acid or a base?
Students : (confused)
- (3) Teacher : Anybody knows Butt weld and fillet weld?

Students : (confused)

Those quotations showed that the students responded to the teachers' questions unclearly, therefore it made the teachers confused to catch their responses. In this case, the teachers should have managed the class well by asking the students to speak more clearly and repeat twice in order students could provide the answers.

Laughter

Laughter is the expression of laughing, giggling by the class, individuals, and/or the teacher. In this study, the students did not provide laughter as the condition of the class was too serious or the teacher did not attract the students to answer enjoy fully which could encourage them to laugh or giggle.

4. The Effectiveness of the Teachers' Questions

Then, to know whether the questions given by the teachers were effective or not, the researcher used *Likert Scale* (Afif & Fatimah, 2020). *Likert scale* is used to measure attitudes, opinions and perceptions of a person or group of events or social phenomena. In the study of social phenomena, it has been specifically defined by the researcher, who hereinafter refer to as a research variable. When using a *Likert Scale*, the measured variable is translated into dimensions, dimensions are translated into sub-variables, and then the sub variables are translated into indicators that can be measured. Finally measurable indicators can be used as a starting point to create instrument items that form the questions or statements that need to be answered by respondents. The data obtained through questionnaire instrument were tabulated and analyzed, in order to find out the effectiveness of those questions to the students' responses. The result of this questionnaire was analyzed by using *Likert Scale* method. In this questionnaire, the researcher used "yes" or "no response. The percentage of each item in questionnaire was tabulated and then the quality of the percentage of each item in questionnaire was categorized "effective" if the respondents answer "yes" more than 50%, and was categorized "developing" if the respondents answer " yes" 50%, categorizing "ineffective" if the respondents are less than 50%. The researcher also used a rubric of evaluation by giving category of each students' response. The ways students perceive and use rubrics in the process of learning is important (Learning, 2014). Teachers and administrators increasingly regard rubrics as important tools in supporting student

learning as well as in facilitating more accurate and efficient evaluation of student work products. The researcher used **NYSUT's Teacher Practice Rubric** to categorize each students' response.

Table 4
NYSUT's Teacher Practice Rubric

Indicators	Uses questioning techniques
Ineffective	<ul style="list-style-type: none"> ✓ Teacher's questions are largely closed in nature. ✓ Questions do not invite a thoughtful response or further discussion. ✓ Techniques result in few students having an opportunity to respond.
Developing	<ul style="list-style-type: none"> ✓ Teacher's questions are a combination of open and closed questions. ✓ Some questions invite a thoughtful response and/or further discussion. ✓ Techniques result in most students having an opportunity to respond.
Effective	<ul style="list-style-type: none"> ✓ Most of teacher's questions are open in nature and engage students in deeper thinking and further discussion. ✓ Techniques require all students to respond.
Highly Effective	<ul style="list-style-type: none"> ✓ Teacher's questions are open in nature and challenge students to think and demonstrate reasoning. ✓ Techniques require all students to respond. ✓ Students formulate many questions to advance their understanding.

Based on the rubric above the researcher categorized each student's response in relation with how students gave responses to the questions given by the teachers.

Table 5
The Effectiveness of the Teachers' Questions

No	Categorizations of students' responses	Category of the Effectiveness	Total
1.	Specific students response	Effective	11
2.	Choral students response	Effective	80
3.	Open-ended or student-initiated student response	Highly effective	-
4.	Silence	Ineffective	25
5.	Confusion	Developing	18
6.	Laughter	Developing	-

As seen in table Table 5 Data Calculation of Students' Responses that the highest total of students' responses was on choral student response. In order to know the effectiveness of the teachers' questions in *Tunas Harapan* Vocational

Senior High School of Pati, the first the researcher used *Likert* scale to categorize the second instrument that was questionnaire given to the students. Then, the data were converted into percentage. In the questionnaire, it was represented in point 10, 11 and 14. Point 10 showed 70% of the total students responded “yes”, point 11 showed 55% from the total students answered “yes” and point 14 showed 70% from the total students answered “yes”.

Hence, in this study the researcher can draw a conclusion that the questions given by the teachers were categorized “effective” since the total respondents were more than 50%. In line with *Likert* scale, NYSUT’s Teacher Practice Rubric also categorized “effective” when the students’ responses were in the type of choral student response.

CONCLUSION

The three teachers applied three types of questions: procedural, convergent and divergent questions. They more frequently used the divergent questions rather than the other types of questions. It seemed that they not only encouraged students to give responses focusing on the central theme of topic discussed, but also tried to require students to engage in higher level cognition.

In this study, the higher levels of cognition such as *evaluating* and *creating* were never used by the teachers. They dominantly used lower levels of cognition such as *understanding* and *applying*, and rarely used *remembering* and *analyzing*. These levels of cognitive questions were related to the convergent questions which require the students to engage in lower level of cognitive thinking. The students’ responses were short answer such as “yes” or “no” or short statement. In this case, teachers only focused on asking the recall information.

The way the students responded to teachers’ questions given, in all recordings, was they applied choral student response more frequently. This showed that the teachers usually asked questions for all the class and part of the class. They also never gave open-ended or student-initiated student response which could use their thinking to provide their own ideas and opinions. And they also never laughed during the teaching and learning process which meant that the class was too serious.

Referring to the students’ responses it could be categorized that the questions given by the teachers were effective for the students since more

than 50% of the students answered “yes” from the questionnaire given, supported with the rubric of NYSUT’s Teacher Practice.

Referring to the findings and the above conclusions, some suggestions are recommended. The attainments of the objective above were expected to give contribution to the teachers about the types and the levels of questioning skill. So, the teachers can adjust the questioning skill to be implemented in the teaching and learning process in the classroom to get good responses from the students. Since the subjects of this study are the non English teachers who must speak all English during the teaching and learning process, the teachers are suggested to increase the higher level of cognitive questions in order to know students’ understanding and to stimulate their critical thinking. To make the class atmosphere enjoy, the teachers should create the class as comfortable as possible for the students or if it is possible the teachers can use some jokes related to the material being discussed. The teacher should vary the question in teaching English to avoid the students boredom and adjust the students need to make an effective learning situation for them. It is advised that readers conduct further study relating to the teachers’ questions and the effectiveness for the students in classroom interaction.

REFERENCE

- Anderson, L. W., & Krathwohl, D. R. (2001). *A Taxonomy for Learning, Teaching and Assessing: A Revision of Bloom’s Taxonomy*. New York: Longman Publishing.
- Afif, R., & Fatimah, S. (2020). Journal of English Language Teaching PERCEPTION OF HOSPITALITY MANAGEMENT STUDENT ABOUT THE QUALITY OF ENGLISH TEACHING MATERIALS AT. *Journal of English Language Teaching*, 9(1). <http://ejournal.unp.ac.id/index.php/jelt> PERCEPTION
- Ambarwati, M. D. (n.d.). *Students’ Responses Towards Teacher Talk Therefore, Interaction between students and teacher is fundamental to the learning process. Interaction occurs as long as people communicating each other with by receiving or giving action and reaction wherever. 1990, 93–100.*

- Apriani, R., & Marchelina, D. (2018). an Analysis of Teacher Questioning in the Classroom Interaction. *PROJECT (Professional Journal of English Education)*, 1(4), 400. <https://doi.org/10.22460/project.v1i4.p400-405>
- Daud, A. R. A. M. B. (2021). *TEACHER TALK OF PRAISES IN ENGLISH CLASSROOM*.
- Gultom, J. J., Medan, U. N., Anggriani, M., & Medan, U. N. (2021). *Mapping a Teacher Questions in Teaching English at a Senior High*. 32, 125–135.
- Ideas, E., Language, E., Vol, E., & Ideas, E. (2020). *English Ideas: Journal of English Language Education Vol. 1 (1) October 2020 Copyright © 2020 English Ideas*. 1(October), 69–82.
- Kholisoh, M. N., Anggani, D., & Bharati, L. (2021). *Journal of English Language Teaching Teachers' questioning strategies and students' perceptions toward critical questions in EFL classroom interaction*. 6(1), 136–145.
- Learning, S. (2014). * 2014 Edition. 1–39.
- Lini Diora, R. N. R. (2013). Journal of English language teaching: Nov-Dec19. *Journal of Chemical Information and Modeling*, 53(9), 1689–1699.
- MONE. (2003). Act of the Republic of Indonesia on National Education System 1. *System*, 20, 1–58.
- Nashruddin, & Rahmawati Ningtyas, P. (2020). English as Foreign Language (EFL) Teacher's Questioning Strategies in Classroom Interaction. *Utamax: Journal of Ultimate Research and Trends in Education*, 2(1), 5–11. <https://doi.org/10.31849/utamax.v2i1.3720>
- Ninla Elmawati Falabiba. (2021). *STUDENTS' PERCEPTIONS TOWARD TEACHER'S TALK IN EFL CLASSROOM OF INDONESIA SENIOR HIGH SCHOOL: A CASE STUDY*. 1(1), 82–91.
- Ramadhani, R., & Zainil, Y. (2019). *Journal of English Language Teaching AN ANALYSIS OF TEACHERS' QUESTIONS IN ENGLISH CLASSROOM ACTIVITY BASED ON HOTS IN SMAN KOTA*. 8(4), 2–10.
- Saswati, R. (2019). Analysis of Classroom Interaction Using IRF Pattern: A Case Study of EFL Conversation Class. *Scope: Journal of English Language Teaching*, 3(1), 29. <https://doi.org/10.30998/scope.v3i1.2782>
- Susantara, I. P. A. D., & Myartawan, I. P. N. W. (2020). An Analysis of Teacher Questions and Student Responses in the English Teaching-Learning Process. *Journal of Education Research and Evaluation*, 4(3), 247. <https://doi.org/10.23887/jere.v4i3.27514>
- Vebriyanto, D. A. (2015). Teacher'S Questions in Efl Classroom Interaction. *Vision: Journal for Language and Foreign Language Learning*, 4(2), 279. <https://doi.org/10.21580/vjv4i21595>