

THE MAJOR PROBLEMS OF ENGLISH TEACHERS IN IMPLEMNTING SCIENTIFIC METHOD

AN ARTICLE

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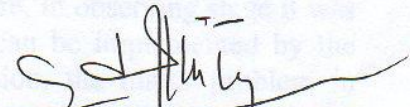
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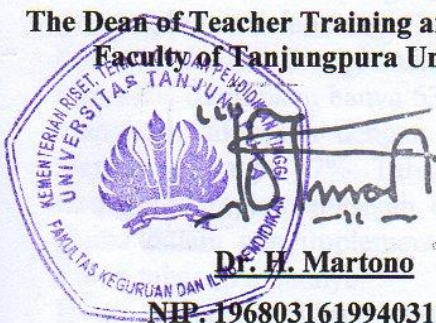
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THE MAJOR PROBLEMS OF ENGLISH TEACHERS IN IMPLEMNTING SCIENTIFIC METHOD

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Abstract: The purpose of this research was to describe what the major problems are faced by English teachers in implementing scientific method in their classrooms. The method used was case study. The participants of this research were three English teachers of SMAN 3 Pontianak. The writer used questionnaire, class observation, and interview to collect the data. The result showed that the teachers faced problems in implementing scientific method with the average of the implementation was only 64,8% was able be implemented. The most problematic stage was in questioning which was only 60% implemented. Moreover, experimenting stage was only 63% implemented. Another stage with the same percentage of implementation, networking stage which was only 63% can be implemented. Furthermore, in observing stage it was only 67%. Associating stage was the highest stage that can be implemented by the teachers with the percentage was only 70%. In conclusion, the major problem in implementing scientific method for English teachers was in questioning stage.

Keywords: *English Teachers, Problems, Scientific Method, Implementation.*

Abstrak: Penelitian ini bertujuan untuk mengetahui apa masalah utama yang di hadapi guru bahasa inggris dalam mengimplementasikan metode ilmiah. Metode yang digunakan adalah studi kasus. Peserta penelitian ini adalah tiga guru bahasa di SMAN 3 Pontianak. Penulis menggunakan kuesioner, observasi kelas, dan wawancara untuk mengumpulkan data. Hasil penelitian menunjukkan bahwa guru menghadapi beberapa masalah dalam pengimplementasian metode ilmiah dengan rata-rata pengimplementasian hanya 64,8%. Tahapan yang paling bermasalah adalah tahapan bertanya dengan diimplementasikan hanya 60%. Selain itu, tahapan mengumpulkan informasi diterapkan hanya 63%. Tahapan lainnya dengan persentasi yang sama adalah mengkomunikasikan dengan pengimplementasian hanya 63%. Selanjutnya, tahapan mengamati hanya 67%. Tahapan mengasosiasi merupakan tahapan dengan persentase tertinggi diimplementasikan oleh guru dengan hanya 70%. Kesimpulannya, masalah utama dalam pengimplementasian metode ilmiah untuk guru bahasa Inggris adalah dalam tahapan menanya.

Kata kunci : **Guru Bahasa Inggris, Masalah-Masalah, Metode Ilmiah, Pengimplementasian.**

Curriculum 2013 is one of the strategies from the government to fulfill the needs of education. Curriculum 2013 was claimed to be different from the previous curriculum that KTSP in several aspects. One of the differences is curriculum 2013 uses scientific method. The method was used generally to every subject of junior and senior high school in Indonesia. Besides, in curriculum 2013 with regard to classroom procedure, the scientific method is materialized in the learning cycle which comprises of five stages, namely: observing, questioning, associating, experimenting and networking. (Permendiknas 103/2014).

Implementing new curriculum may change not only what pupils learn, but also how they learn it, how teachers help them to learn, how to find sufficient materials, styles and methods of assessment, and supporting facilities. In hence, there were some problem for English teachers in implementing scientific method. The fact show that scientific method has been popular in science, social science, and management. Probably, scientific method is not relevant with language teaching, particularly English language teaching, or scientific method is not really linked to language teaching. Nevertheless, in language teaching and learning process, it is a rarely phenomenon to have something like we have in science, like doing some experiments.

In order to find out what are the problems that faced by the English teachers in implementing scientific method the writer did this research. Here the resercher would like to know the implementation of scientific method in SMAN 3 Pontianak. The researcher decided the place in SMAN 3 Pontianak because has english class that suitable with 2013 curriculum practise. Moreover, this school is one of the schools with a good accreditation. Furthermore, the teachers were already gotten some workshop about curriculum 2013. Therefore, the writer was wondering if the school like SMAN 3 Pontianak with some good points faced problems in implementing scientific method. Based on the research background, this research was conducted to answer the research question what are the major problems of English teachers in implementing scientific method?.

Curriculum 2013 is claimed to be different from the previous curriculum that KTSP in several aspects. One of the differences is that 2013 curriculum uses the scientific approach; in the other hand KTSP used inquiry approach. With this new curriculum, it is expected that Indonesia can promote its national education. The new curriculum among other things is intended to empower teachers to develop the competency in learning activities relevant to the learner's need, based on actual condition of the school, and the necessity to link it to the environment. In order to fulfill the aim of curriculum 2013, the government had stated some basis of curriculum itself in Permendikbud (70/2013 in Sairin, 2014) such as: theoretical basis of curriculum 2013 and juridical basis of curriculum 2013.

Theoretical basis of curriculum 2013 was developed on the theory of standards-based education and the theory of competency-based curriculum. Education based on standards set their national standards as a minimum quality of citizens. These standards are specified into standard of content, standard of process, standard competency, standards of teachers and education staff, standard of facilities and infrastructures, standard of management, standard of assessment and standard of education financing. Competency-based curriculum is designed to provide widest breadth of learning experiences for students in developing the ability to act, knowledgeable, skilled, and act (Sairin, 2014). Curriculum 2013 was believed to make the students have similarities process of teaching. In such away the similar process were expected to produce similar

achievement of the students like the standard which has been made before. In hence, curriculum 2013 has a same method that to be implemented for all of junior and senior high schools in Indonesia.

Furthermore, to make the changes of curriculum 2013 stronger, there should be some juridical basis in curriculum 2013 like stated in Sairin (2014), which are: 1. Undang-Undang Dasar Negara Republik Indonesia Tahun 1945; 2. Undang-Undang Nomor 20 Tahun 2003 tentang Sistem Pendidikan Nasional; 3. Undang-Undang Nomor 17 Tahun 2005 about Rencana Pembangunan Jangka Panjang Nasional, as well as all the provisions as outlined Rencana Pembangunan Jangka Menengah; 4. Peraturan Pemerintah Nomor 19 Tahun 2005 Tentang Standar Nasional Pendidikan which is changed with Peraturan Pemerintah Nomor 32 Tahun 2013 about Perubahan Atas Peraturan Pemerintah Nomor 19 Tahun 2005 about Standar Nasional Pendidikan.

Scientific method in curriculum 2013 was placed as the standard curriculum approach in teaching process. Scientific method in curriculum 2013 is claimed to be more effective in increasing students' learning outcomes than the traditional one. This method is also considered relevant with the idea that learning is a scientific process in the classroom. Therefore, scientific in curriculum 2013 must be applicable in all subjects including English.

Suharyadi (2014) stated that there are three points that become the focus in teaching and learning process with scientific method. They include attitudes (affective), skills (psychomotor) and knowledge (cognitive). Attitudes refer "students know why", skills refer to "students know how", and knowledge refers to "what students know". These three points are expected to make students affective, creative innovative, and productive. In other words, with these three points, students have soft skills and hard skills to live properly. In order to achieve these goals, the teachers follow the five steps in teaching and learning process. They are observing, questioning, associating, experimenting, and networking. Like in his book Fathurrohman (2014) and Suharyadi (2014), they explain about the scientific method steps. Each of the steps is presented in the following.

Observing is a kind of meaningful learning. Here, students and teachers are provided with objects, real objects, or phenomena. Students are directly involved in learning. It helps teachers to contextualize students' learning in the classroom. At the same time, students can learn based on what they see to construct their knowledge. It also facilitates students to fulfill their need of knowing something. In this context, their curiosity will lead them to the construction of knowledge. Contextually is also present because students can connect what they have learned with what they are going to learn.

The second step is questioning. It is a powerful teaching technique that has been used for years since it was firstly introduced by Socrates. Research indicates that questioning is second only to lecturing in popularity as a teaching method and that classroom teachers spend anywhere from thirty-five to fifty percent of their instructional time conducting questioning sessions. Questioning can be used by both teachers and students in the classroom. What are the purposes of teachers' classroom questions? A variety of purposes emerge from analysis of the literature, including (1) to develop interest and motivate students to become actively involved in lessons, (2) to evaluate students' preparation and check on homework or seatwork completion, (3) to develop critical thinking skills and inquiring attitudes, (4) to review and summarize previous lessons, (5) to nurture insights by exposing new relationships, (6) to assess achievement of instructional goals and objectives, and (7) to stimulate students to pursue knowledge on their own.

The term “associating” used in Curriculum 2013 is more appropriate than “reasoning”. Associating is to describe teachers and students’ active participation in the classroom. Of course, students must be more active and are given more opportunities in learning. Associating is the process of thinking logically and systematically over - the empirical facts that can be observed in the form of knowledge to obtain conclusions. In the context of learning, associating is focused on students’ learning activities. That is why; associating is used in Curriculum in 2013 because it adopts the ideas of associative learning theories. The term associating refers to the ability to group diverse ideas and associate diverse events as experiences. When the experiences are stored in the brain, they will interact with the previous events or experiences. This process is called associating. How can associating be applied in the learning process? The followings are the activities the teachers can do. (1) Teachers prepare the learning materials in a form that is in accordance with the demands of the curriculum, (2). the main task of the teacher is to give a brief but clear instructions with accompanying examples , either by themselves or by means of simulation, (3) the learning materials are arranged in a tiered or hierarchical , starting from the simple to the complex, (4) results-oriented learning activities can be measured and observed, (5) every error must be corrected or repaired, (6) repetition and practice need to be done so that the desired behavior can become a habit, (7) evaluation or assessment is based on the behavior of a real or authentic, and (8) the teachers record all learners progress.

To get the real or authentic learning, learners have to do experiments. For example, students should understand the concepts of science and its relation to everyday life. Learners must have the skills to develop knowledge about the environment, and be able to use the scientific method and scientific attitude to solve the problems they face in everyday life. The application of experimental methods is intended to develop various learning objectives, the attitudes, skills, and knowledge.

Networking is also called collaborative learning. Here, collaborative learning is a personal philosophy, which is more than just learning techniques in the classrooms. Collaboration is the essence of philosophy and lifestyle of human interaction that places and facilitates collective efforts in order to achieve common goals. For teachers, the collaborative learning function is more directive oriented in which the teachers are managers in the students’ learning. Here, the students are those who are active. In a collaborative situation, the learners interact with empathy, mutual respect, and receive a deficiency or excess, respectively. This allows the learners to face various changes and challenges to learn together.

Teaching can be defined by many words like sharing, transferring, giving or even asking. Teaching activities always followed by learning activities. Means if there is a teacher, there should be student(s). Moreover, the teacher must have teaching materials which going to be taught. In addition, the materials itself may be taught by some methods, strategies, or techniques. Teaching and learning is a process or activity of taking and giving knowledge and information.

Like Harmer (2001) stated that in teaching and learning English as foreign language. Whatever the level of the students and however language, study is organized within English Language Accusations teaching sequences, there are four things that students need to do with ‘new’ language: be exposed to it, understand its meaning, understand its form (how it is constructed) and practice the language itself. That is the reason why Harmer (2001) also stated “in classroom, a major part of the teacher’s job is to expose students’ language so that they can use it later.” Brown (2000) also stated that

the profession of language teaching need a method in teaching process, and it is generally successfully to teach the students a foreign language in the classroom. As already mentioned before, a method is an overall plan for systematic presentation of language based upon a selected approach. In curriculum 2013, the government has already chosen scientific method as a general method for junior and senior high school. This method was actually a suitable method to be applied. But it seems that this method cannot be implemented well due to some factors. One of the factor is some stages in scientific method cannot be implemented in certain condition. That is why as teachers, they should be more creative to combine scientific method with another method but keep in line with the scientific method itself, for example Communicative Language Teaching. In teaching English, there are some methods which has been used for many years. Usually each method has its own characteristic in the way of applied. As Brown (2000) stated in his book *Teaching by Principles*, he mentioned some interesting methods in teaching English as foreign language. Such as, The Grammar Translation Method (1950s), Gouin and the Series Method (1800s), The Direct Method (1900s), The Audio-Lingual Method (1960s), etc.

Implementing scientific method in English teaching is a hard job to be implemented. It is not what to teach but it is about how to teach. As stated in *Teachers' Book of When English Rings The Bell (Revised Edition) for Grade VII* (Kemendikbud, 2014: 12) in Munir: 2015) which makes implementation guidelines as follows : 1. Observing stage includes activities of listening to spoken texts (audio/video) and reading short/long functional texts, including an observation sheet, in order to explore their social functions, text structure, language features. 2. Questioning stage includes activities of reconstructing concepts of social functions, text structure, language features of the observed texts. 3. Collecting information/experimenting stage includes activities of internalization of the learned concepts by applying them in real language use in the class, i.e. Producing texts similar to what they observe. 4. Reasoning/associating stage includes activities of employing the concepts of social functions, text structure, language features to other similar texts to strengthen the concepts. 5. Communicating stage includes activities of showing their knowledge of social functions, text structure, language features and language skills of producing texts orally and in writing.

METHOD

The method of the research is a case study that used to know what are the problems that faced by the English teachers in implementing scientific method. Woodside (2010) defined case study based on its functions which are to describe, explain, predict, and control. As a mean of description, descriptive case study answer the question who, what, where, when, and how. In this research, the writer focused on to answer research question what. In this research is focused on major problem in implementing scientific method for English teachers in SMAN 3 Pontianak.

The subjects of this research were three English teachers in SMAN 3 Pontianak. The tools of data collecting were used by the writer were questionnaire, interview, and class observation. As Hays (2004) stated "validity and reliability of data resulted from case study research has long been an issue of major debate between quantitate and qualitative researchers. Quantitates researchers argue that the data from case study has the tendency to be bias because data are collected from techniques like observation and interview. Moreover, questionnaire distribution was also needed to make data clearer.

The research was begun with questionnaire distribution, then teachers interview and class observation. The questionnaire consists of 25 questions about scientific method implementation. The interview was made to know deeper about the problems with 18 questions. In order to avoid bias data that might be made by the teachers there were 27 list of observation checklist.

The writer analyzed the qualitative data that were taken from interview transcripts and observation checklist using the qualitative explanations. As mentioned by Creswell (2012) that there are several stages used in analyzing qualitative data. Like starting by got the gist of the whole discourse, identify the documents one by one starting from the most interesting, coding the documents by identifying the text into segments, grouping the similar codes and looks forward the redundant words, and repeat the process several times. In analyzing the quantitative data that taken from questionnaire the writer used statistical formula which was counting the result of the Likert Scale.

RESEARCH FINDING AND DISCUSSION

Research Finding

The English teachers in SMAN 3 Pontianak faced problems in implementing scientific method in their classroom. The summary of teaching and learning using scientific method was described below in Table 1.

Table 1
Questionnaire Result of the Scientific Method Implementation by the Teachers

QI	TEACHER 1					TEACHER 2					TEACHER 3					TA (in scales)
	AL	OF	SO	SE	NE	AL	OF	SO	SE	NE	AL	OF	SO	SE	NE	
1		√					√				√					13
2			√				√					√				11
3			√				√						√			10
4		√				√						√				13
5				√					√					√		6
6			√					√					√			9
7		√							√			√				10
8			√					√						√		8
TOTAL ANSWERS OF OBSERVING STAGE																80
9				√				√					√			8
10			√						√					√		7
11	√							√				√				13
12			√					√						√		8
TOTAL ANSWERS OF QUESTIONING STAGE																36
13			√					√					√			10
14				√					√					√		6
15			√					√					√			9
16			√					√				√				11
17		√						√				√				11
TOTAL ANSWERS OF EXPERIMENTING STAGE																47
18				√				√					√			9
19			√			√						√				12
20		√				√							√			12
21			√					√					√			9
TOTAL ANSWERS OF ASSOCIATING STAGE																42
22				√				√					√			9
23		√						√					√			10
24			√					√					√			10

25			√					√				√				9
TOTAL ANSWERS OF NETWORKING STAGE																38
TA	1	6	13	5	-	3	10	8	4	-	1	6	13	5	-	243
TA/O	5	24	39	10	-	15	40	24	8	-	5	24	39	10	-	
TA/T	78					87					78					243
%	62,4% (high)					69,6%(high)					62,4%(high)					64,8%(h)

The findings showed that all of the teachers were in **high** level, whereas it was concluded by looking at the average of the scientific method implemented by the teachers were 64,8%. Two out of three teachers had the same score which were 62,4%. Meanwhile, the other teacher she got the percentage of the implementation were 69,6%. Although two of them got the same score, it did not mean that both of them answered the same questions with the same answer. Actually, there were a lot of differences of the answers between both of them.

Moreover, from the table above it can be concluded that there were still some parts of the scientific method implementation which were considered as not implemented maximal yet. Such as on question number five and fourteen with total answer were only six. It means that all of the teachers answered the same option which was **seldom**. **Seldom** was only in scale 2, where the problem was the students seldom pay attention to reading materials in observing stage. When the writer confirmed to the participants, all of them said the problem was because the students were not interested to the materials in form of reading. They easily get bored and they will do something else rather than keep their attention to reading materials. Furthermore, the question number 14 was about the students could not easily find another appropriate sources in experimenting stage. The school did not provide the students with other sources except the handbook from the government.

Another potential problem was on question number 10. Two out of three teachers said that the students were seldom asking questions in questioning stage. Moreover, the other teacher, she only answered that sometimes her students ask questions. The problems were the students afraid to speak so they tend to keep silent. Furthermore, the speaking ability of students was still poor. They usually ask in Bahasa rather than used English. Besides, even though three of them were in **high** level of the scientific method implementation based on the result of the questionnaire, the data was not enough to have a conclusion that the teachers were had been implemented scientific method well. As the writer already explained before that there were still some problems faced by the teachers in implementing scientific method. As the writer already diagram 4.1 below how the percentage of scientific method implementation were in high level but still not maximal yet.

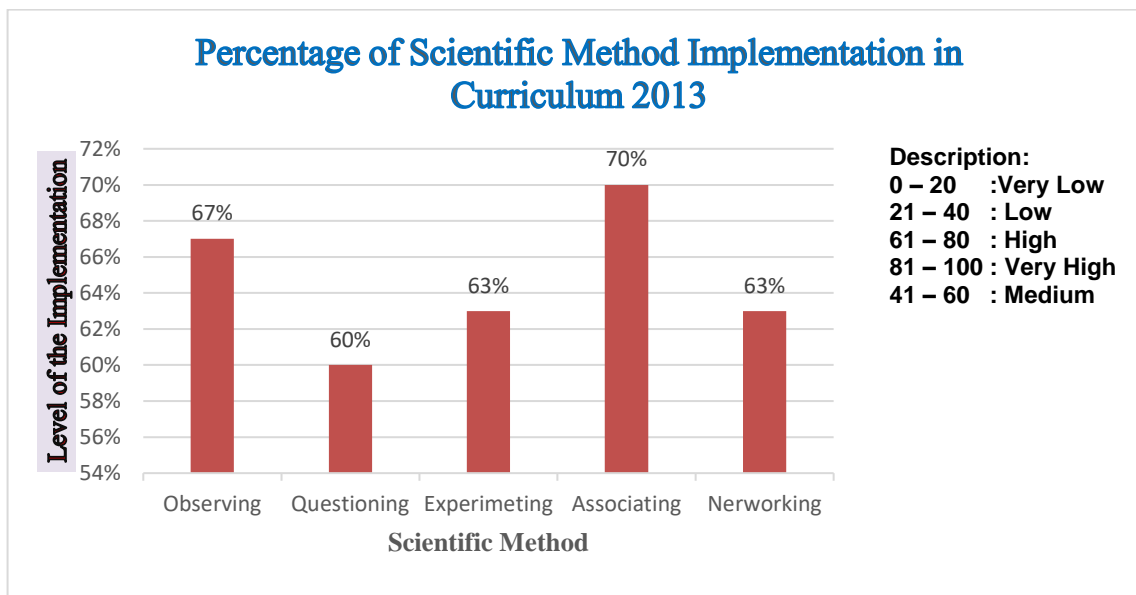


Diagram 1

Percentage of Scientific Method Implementation in Curriculum 2013

From the figure above, the percentage of the teachers' answer showed that they might have some problems in implementing scientific method especially in questioning stage. In questioning stage the scale of the answer was only **60%**, in another word it is just on **medium** level. Furthermore, the others stages showed the result that they were in **high** level such as experimenting was **63%**, networking was also **63%** and observing was **67%**. Moreover, the highest scale of the teachers' answer was in associating stage **70%**, it means that it was in the **high** level. From the diagram above, only one stage of scientific method was in a medium level, it was quite similar with the writers' assumption before that questioning might be considered as the problems which faced the most by the teachers in implementing scientific method. Furthermore, it was not the conclusion yet. There was only the result of the questionnaire. There were still another data collecting tools which were not discussed yet.

Discussion

The data from the questionnaire were also supported by the result of interview with the teachers. From the interview, all of the interviewees mentioned that in observing process they **usually** provided some videos, some pictures, and or some recordings. It means that the teachers mostly used seeing, listening, observing, and scrutinizing materials. They rarely gave the materials in reading format. Moreover, the entire participant said that, when they used reading format to be the observing materials, their students usually shown uninterested respond and seem like they were bored.

From the class observations, the writer also found the same phenomenon happened in the classroom. The teachers usually gave the observing materials in form of videos, pictures and or some recordings. As what one teacher stated, "Now let's take a look **on the slide**. As we have already known that today we will learn about advertisement. Try to find out what are the content of this advertisement (point to the slide). You can

discuss with your desk mate. Your time to observe is about three minutes. You may take some notes of it”.

From the result of the questionnaire all of the teachers had similar experience that their students did not really show positive respond in asking questions. The same problem also mentioned by the teachers when they were asked in the interview that their student in questioning stage; they were not really active to ask questions. From the interview, the writer also discovered some important points like all of the teachers said that questioning stage is the hardest stage to be done. They always faced most difficulties when they came to questioning stage because the students tend to be passive.

From the class observations, unfortunately the writer found that almost each classes only three to four students only who asked questions. The students who asked questions were almost the same person all the time. It means that only about 9% from 36 students who ask questions. The other students were mostly quite or they were busy with something else. But it was much better when one of the teachers tried to give them some questionable statements which made them argue and they started to speak up. Argue in this case was not something bad, but it was good because the students tried to give their opinion about the materials.

Moreover, all of the teachers actually had some ways to trigger their students to ask. Like two of them usually gave some questionable statement and also they strengthen some interesting points. They also usually gave some guiding questions. Furthermore, another teacher said from the whole students in the class, the students who ask questions just about 25%-30%. It means from 36 students in the class, there were just more or less nine students who ask questions.

In experimenting process, the research participants had their own experience for each teacher. In interview, two out of the teachers said that sometimes some students showed a low enthusiasm to do the tasks in experimenting stage. They acted like they were tired enough to do the tasks. Moreover the other teacher said that her students often times do the experimenting tasks with a high enthusiasm and if they could not finish the tasks on time they showed their dissatisfaction and they will ask to the teacher to collect their work later after the lesson finished.

The writer also asked about how the teachers design the experimenting activities/tasks. All of them they said they usually used the provided tasks or exercises in the books. But sometimes they also designed or made their own tasks for their students. They said sometimes it was not easy to design or make the tasks by their self. In regard to some factors like there are some materials which were easy to be made or found on the other sources

As what the teachers' answer in the questionnaire about their students in the experimenting process, the writer in the class observation also saw the similar things happen in the classrooms. Most of the students showed their activeness while the process of experimenting process. The writer might say almost all of them; they did the tasks which were given by their teachers. Even sometimes like in the one of the teacher said before that there were a few students which was busy with their own business. But after the teacher admonished them, they asked their teacher to repeat the instructions of the tasks and then they began to do the tasks.

In answering the questionnaire, the teachers said that the students did not really work actively to collect and gather the information. The students usually needed the teachers help to gather the information. In despite, the teachers had the same experience

that they often helped the students in associating process was not easy. The result of interview almost discovered the similar things as in questionnaire. The teachers said they usually helped their students to collect the information that they have gotten from observing, questioning, and experimenting.

Based on the class observations, the writer found that almost all of the teachers rarely provided the students by some other books or sources. The teachers just let the students worked with the provided book. Even though, the teachers really helped their students by becoming the facilitator for the students.

The process in networking is not only in form of verbal communicating or sharing but it is also in form of written like journals, diaries and or reports. Networking process is also about the result of the whole classroom activities from observing, questioning, experimenting and associating.

The result of the questionnaire showed revealed some facts from the participants. Such as students were seldom doing the presentations, demonstrations, and group investigations in the networking process. It was happened because the time was not enough to do that. From the observation it showed the teachers were not really good in time management. It was seen that the students took too much time on the previous stages.

Moreover, from the observation the writer found that the students were not able to speak fluently. In fact that they are in the tenth grade students, they should be able to speak fluently. On the contrary, they could not present their work well and it destroyed the time management. Such as there should be four groups present their works in 40 minutes (10 minutes for each groups), but there were only two group who able presented the presentations.

From the discussion above the writer had concluded that in implementing scientific method in the classroom, the English teachers in case the participants they faced some problems. The problems are first about some stages in scientific method were quite difficult to be achieved by the teachers like the experimenting process; it usually did not work as what already planned before. So the time schedule was not running well.

Furthermore, the teachers faced problems in encouraging the students to ask in questioning process. Besides the other problems because this curriculum with its method that is scientific method was still new. The teachers and the students need more time to be accustomed with it. It was also about the lack of supported facilities and the minimum of relevant sources.

CONCLUSION AND SUGGESTION

Conclusion

Referring to the discussion of this research, the writer concluded that the implementation of procedure of scientific method in teaching English is not completely in line with the standard from the government. The teachers at SMAN 3 Pontianak were not always use all stages because they still confused to teach English by using scientific method. It is also because the teachers could not manage the time to apply all of the stages well. Moreover they were not supported by the appropriate facilities.

In this research, the writer found that the implementing scientific method in questioning stage was only 60% (**medium** level) implemented by the teachers. In experimenting stage the teacher only could implement the stages of scientific method was about 63%. Networking stage was also in the same scale which was in **high** with the percentage 63%. Observing stage was placed as the second highest position with the percentage 67%. Moreover, associating was the highest level of the scale based on the questionnaire result with the percentage 70%.

From the explanation above, it can be concluded that the major problem in implementing scientific method in teaching English was in questioning stage. The result of the questionnaire was only 60% means in medium level. The entire of the teachers said that 40% was about the problems in encouraging the students to ask questions were not easy. Even they had triggered the students to ask, the students still keep silent. The result of the interview also showed that all of the teachers agreed that this stage is the most difficult one to be done.

Suggestions

Based on the research finding and discussion, there are some suggestions that the writer would like to propose, they are: (1) from the research finding showed that the teachers still could not have a good time management in organizing the classroom, the teachers may try some tricks to make the students move faster. The tricks are like give some rewards to the fastest groups of individual student in finishing their work. Moreover it can be some positive punishments to the students who do not work or even work purposely slow. The teachers still have the strongest power in the classroom. (2) The teachers also had problems to trigger the student to ask, they may try to do some treatments like every students need to prepare some questions after observe the observing materials. The students need to do it continuously. At the very beginning the teachers may give an additional reward like who are active in the class will additional scores. Although actually it is really the time, if the students already get used they will ask or speak by them self. (3) For the techniques in teaching, the teachers can combine the scientific method with the previous method in language teaching. (4) The writer also suggested for the further researcher to investigate about the varieties of techniques in language teaching by the English teachers. (5) It is also suggested to find out some problems from students' side while the scientific method and or curriculum 2013 is being applied. (6) The present study was conducted in SMAN 3 Pontianak that known as a good quality school, the further research may try to find out how is the implementation of curriculum 2013 especially scientific method in a different quality of school.

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