THE ENGLISH LANGUAGE TEACHING AT YOGYAKARTA SENIOR HIGH SCHOOL USING SCIENTIFIC APPROACH PERSPECTIVE

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Abstract**:** *This paper discusses the quality of the English teaching process based on the scientific approach of senior high school students in Yogyakarta. It investigated the teacher's understanding of the lesson plan of English teaching with the scientific approach and the implementation of the scientific approach in English teaching. The design of the paper used descriptive qualitative. The samples of this study were nine teachers of senior high schools in Yogyakarta. The data of the teaching process was collected by using lesson plan review, observation, and interview. The assessment sheet of lesson plan review is used by collecting lesson plan data using the scientific approach. The data got from the teacher's lesson plan had been made by the teacher before. The assessment sheet of observation is used by gaining data about implementing English teaching in the classroom. And the interview sheet contained questions that aimed to get more information from the English teacher. The data analysis used in this research is an interactive model from Miles and Huberman. They were data collection by observation, interview, review documents, data reduction, display data, and conclusion drawing. The finding showed that the teachers' understanding of the English teaching lesson plan with the scientific approach was good. It was established in the lesson plans that the teachers made, which had the characteristics required by the Minister of Education and Culture Regulation No. 22 the Year 2016. Another finding was that the implementation of the scientific approach had been exemplary because the teachers in the teaching process had implemented the 5 M teaching steps. However, it was constrained by the students who were still embarrassed or afraid in questioning and communicating. Finally, the study showed that the teachers must be active in activities organized by The Ministry of Education and Culture and The Branch Office of Education of the Province, City, or Regency by participating in English teacher forums, workshops, or training held by Educational Quality Assurance Agency or Other Organizations related to Curriculum 2013.*

Keywords: scientific approach, English teaching, lesson plan

INTRODUCTION

The scientific approach is the approach used in the current curriculum, namely the curriculum 2013 in all subjects designed for 21st-century learning models. There is a change in learning from students is told by the teacher being learners to find out the material from various learning sources beyond the limits of educators and education units. The learning process can be paired with a scientific method. Therefore, the curriculum 2013 mandates the essence of the scientific approach to learning. The scientific approach is believed to be a golden platform for developing attitudes, skills, and knowledge of students in Indonesia, especially for English subjects in school.

To use the scientific approach should have five teaching steps (Observing, Asking, Experiment/collecting information, Association/Processing information, and Communicating) in the learning process. The approach is supported by several other learning methods, such as problem-based learning, project-based learning, discovery-based learning, etc., all of them have to mean "doing science," which is centered on learners. The scientific approach is supported by these methods, in line with the principles of genre-based English and text learning, which are based on a series of concepts about language, its function, and use.

McCollum (2009) explains that the learning process with a scientific approach is essential because it can increase curiosity (foster a sense of wonder), improve observation skills (encourage observation), encourage analytical activities (push for analysis), and require communication. Besides making students more active in constructing their knowledge and skills, the scientific approach can also encourage students to investigate facts from a phenomenon or event. Those students are taught and accustomed to seeing the scientific truth of a phenomenon in the learning process. Students are trained to think logically, coherently, and systematically using high-order thinking (HOT) capacities. White (1997) had warned about the importance of teaching students facts.

English teachers have implemented the scientific approaches reflected in the lesson plan. The lesson plan has the curriculum's characteristics that apply at this time, such as the identity, the learning objectives, learning material, learning models/methods, the steps of learning activities, media/tools/learning materials/sources, and an assessment. Those are five learning steps as the identity of the scientific approach.

However, there could be a difference between what the teachers wrote in the lesson plan and what the teachers implemented in the classroom. In general, the teachers made lesson plans, but not all listed in the lesson plan can be implemented. The teachers can use new things not listed in the lesson plan and achieve the same goals as those listed in the lesson plan. So that in the lesson plan, the teacher still had difficulties determining the indicator of competence achievement, formulating learning objectives and learning assessment, and had an impact on the implementation of the scientific approach in the classroom, namely in doing the five steps in the questioning and communicating. It happened to students who were still embarrassed or afraid in questioning and communicating. Then the teachers also had not fully understood the curriculum 2013 technicalities.

Sumarwan's (2015) research showed that learning planning was well carried out. Most teachers developed lesson plans using the model due to the training, referring to the Minister of Education and Culture Regulation Number 103 the Year 2014. The implementation of

learning with a scientific approach had been carried out well. The teacher had carried out the five learning steps and acted as a facilitator so that students were actively involved in learning. However, teachers still had difficulty applying the scientific approach and using more lecture, discussion, and question and answer methods in the learning process. There are supporting factors and obstacles in planning and implementing learning. In the learning planning, the supporting factor was the education and training carried out by the Ministry of Education and Culture. The obstacle was the teachers' limited time in preparing lesson plans. Meanwhile, in the implementation of learning, the supporting factors were monitoring the performance of the curriculum 2013 conducted by the Ministry of Education and Culture, the availability of teacher and student books, and teachers who were competent and understood the curriculum 2013. Obstacles were rapid changes in government policies, limited infrastructure, and standardization in learning approaches and methods.

Azizah et al. (2015), in the results of their research, showed that the seventh grade English teacher at SMPN 1 Pamekasan planned the English learning process through writing lesson plans. However, the scientific approach in teaching English based on Curriculum 2013 at the beginning of the year did not go well. Most English teachers in grade VII had difficulty facilitating students and communicating activities between peers or teachers. It meant the teachers still had trouble applying the steps of a scientific approach.

Based on the explanation about the potential and weaknesses of implementing the curriculum 2013 that carries a scientific approach, the researchers are interested in getting empirical information about the implementation of scientific approaches in Yogyakarta City High School, especially in English subjects. This research explicitly describes the English teaching process based on the scientific approach perspective in senior high school in Yogyakarta. The application of this scientific approach is essential to be explored. As explained above, a learning approach is a tool in optimizing the three critical elements, namely students, teachers, and learning resources. Inappropriate approaches to a subject or skill will impact all aspects of the learning process, starting with students' learning outcomes.

Scientific Approaches Perspective

The scientific approach or scientific process-based approach is defined as a learning approach for all subjects, including English subjects in the curriculum 2013 in Indonesia. The enactment of the curriculum 2013 refers to the Minister of Education and Culture Decree Number 128 the Year 2013 concerning curriculum 2013 development says that science is a

method of scientific discovery that is more inductive. We conclude from the facts, then summarize to find common ones.

Learning using a scientific approach has a positive effect on teachers and students. Wahyono et al. (2017) state that learning using a scientific approach positively influences teachers and students. It is because learning with a scientific approach about scientific thinking processes trained in systematic and holistic thinking. The scientific approach sees learning as an estuary and builds further interconnected knowledge that reflects the subject's ability, exploration, and collaboration. The scientific approach also provides opportunities that may be broader for teachers to explore students' knowledge by their abilities and needs.

Osherson et al. (1992) stated that the scientific discovery paradigm is defined in a first-order logical framework. The concept of the success of the scientific search method is formulated and investigated within this paradigm. Meanwhile, research on scientific methods and search methods was also carried out by Tang et al. (2010) which stated that the scientific method typically has its characteristics, namely a series of command steps that intend to guide students' search.

Harahap et al. (2017) say that the scientific approach is related to the scientific method. It incriminates observing activity needed for hypotheses formulation or collecting the data. Generally, it is based on the exposure of data observation or experimentation. Therefore, experiment activity can be changed to get information from various sources. Learning with the integration of scientific activity is generally an inquiry activity. It is a thought process to understand something by asking the question. Inquiry is the dynamic process of being open to wonder and puzzlements and coming to know and understand the world (*What is Inquiry?*, 2019).

From the explanation above, it can be concluded that the learning approach that uses a scientific method is a learning approach that adopts scientific steps that allow for the cultivation of scientific thinking skills and emphasizes inductive reasoning rather than deductive reasoning. Deductive reasoning sees general phenomena to be engaging a specific conclusion. Conversely, inductive reasoning looks at a particular phenomenon or situation, drawing a general conclusion.

In Minister of Education and Culture Decree Number 81 the Year 2013, the scientific learning process consists of five learning experiences, namely:

Observing

The observing method prioritizes the meaningfulness of the learning process (meaningful learning). The observing method is beneficial for the fulfillment of students' curiosity so that the learning process has high meaningfulness. With the observation method, students find that there is a relationship between objects analyzed with learning materials used by the teacher.

Questioning

In the curriculum 2013, the questioning activities are expected to emerge from students. Questioning learning activities are done by asking questions about the information not understood from what is observed or asking questions to get additional information about what is observed (from factual to hypothetical questions). The questioning can also be revealed, but it can be in students' minds. To lure students to reveal questions, asking the teacher in learning is also very important, so it must be conducted.

Experimenting

Students must conduct experiments to obtain genuine or authentic learning outcomes, especially for appropriate material or substance. Students must also have process skills to develop knowledge about the natural surroundings and use scientific methods and be scientific to solve the problems they face every day.

Associating

The activity of associating/managing information is reasoning activity. The term "reasoning" in the learning process framework with the scientific approach adopted in the curriculum 2013 is to illustrate that teachers and students are active actors. Reasoning is the process of logical and systematic thinking of empirical facts that can be observed to obtain conclusions in the form of knowledge.

Communicating

Collaborative learning can be carried out in communicating activities. Collaborative learning is a personal philosophy, more than just learning techniques in school classes. Collaborative essence is the philosophy of interaction and human lifestyle that places and interprets cooperation as a well-designed and deliberate interaction structure. A form to facilitate collective efforts to achieve common goals.

Learning English with A Scientific Approach

For senior high school students in Indonesia, learning English is not the first experience but a continuation of what has been obtained in junior high school. Thus, the senior high school English curriculum continues the English language curriculum in junior high school. At this

stage, aspects of language such as vocabulary, pronunciation, word pressure, grammar, and other elements may not be easy to learn because English has differences in many aspects of students' mother tongue. Pachler et al. (2014) says that teaching in the TL can be tiring for teacher and pupils. A lot of thought has to be called language, so pupils don't get left behind.

Burhanuddin et al. (2018) argue that implementing a scientific approach during the learning process still needs improvement. It is caused by unequal chances received by students to participate in the whole steps of the scientific method directly. Naturally, the implementation of the scientific approach is helpful and should be applied during the teaching and learning process in school to stimulate students' activeness.

Teaching English at the senior high school focuses on increasing students' competence to use English to achieve communication goals in various contexts, both oral and written, with higher complexity than the material studied in middle school, using the same approach, which is a text-based approach. This learning refers to the function of language and its use, a unified meaning both oral and written.

Melyadi & Fadloeli (2019) says in their research that the scientific approach can effectively improve students' reading comprehension. It can make students easy to understand the reading test. They should be active to practice a reading skill from the kind of material given by teachers and get the other information from mass media. It can help students get better results in learning English.

Based on these approaches, Sukhriani et al. (2017) stated English language learning with a scientific approach needs to include some of the following activities:

- Purpose of social functions. Texts that are spoken, listened to, read, and written by students are directed to carry out social tasks in an authentic or near authentic manner in terms of their source and use. Through this activity, students will encounter problems or genuine difficulties too.
- The learning process includes observing, asking questions, gathering information or trying, associating, and communicating. In carrying out each activity, it is possible to do other steps. For example, asking questions can be done directly at the observation stage, even collecting information, associating, and communicating. When describing information, things can appear that make students improve their observations.
- The learning process is carried out through habituation and civilization, using many examples in the accuracy and acceptability of the meaning and structure of the text and

linguistic elements of the text that are spoken, listened to, read, written, including behavior in the context of their use.

- The learning process combines initiative and self-activity, group collaboration, and professional guidance from the teacher.
- Learning also includes developing the ability to develop work steps in carrying out each task, including using tables, charts, power points, audio / visual equipment, etc.
- Learning also includes developing questioning skills, including asking questions about things that are not known, questioning things already established, etc.

In the Minister of Education and Culture Decree Number 81, the Year 2013 Attachment IV explains the relationship between learning steps and learning activities and their meaning below.

Learning step 1

- Observing
- Learning activity (read, listen, see the picture, video, or others from the teacher).
- Developed competencies (train seriousness and thoroughness, seek information).

Learning step 2

- Questioning
- Learning activity (Asking questions about the information that is not understood from what is observed or questions to obtain additional information about what is observed (starting from factual questions to hypothetical questions)
- Developed competencies (Develop creativity, curiosity, the ability to formulate questions to form the necessary critical thinking to live smart and learn for life)

Learning step 3

- Experimenting
- Learning activity (do experiments, read textbooks, observe objects/events/, activity, interviews with other people)
- Developed competencies (Develop a thorough, honest, polite attitude, respect the opinions of others, the ability to communicate; apply the ability to gather information in various ways that are learned; develop study habits and lifelong learning)

Learning step 4

- Associating
- Learning activity (process the information that has been collected, both limited from the results of managing/experimental activities as well as the effects of observing activities and information gathering activities)
- Developed competencies (Develop an honest, thorough, disciplined attitude, obey the rules, work hard, the ability to apply procedures, and the ability to think inductively and deductively in concluding)

Learning step 5

- Communicating
- Learning activity (present the results of observations, conclusions based on the results of the analysis orally, in writing, or other media)
- Developed competencies (Develop honest, thorough, tolerant, systematic thinking skills; develop the ability to express opinions concise and clear, and develop excellent and correct language skills)

Lesson Plan (RPP)

The lesson plan is a teacher's plan in teaching in the classroom. The plan is developed from the syllabus. The lesson plan serves as the teacher's assistant in learning based on the Competency Standards (*Standar Kompetensi*) and Basic Competencies (*Kompetensi Dasar*) when the teacher teaches. According to Raval (2013), the lesson plan is a teacher's detailed description of the course of instruction for one class. A teacher develops a daily lesson plan to guide class instruction.

The Ministry of Education and Culture Regulation Number 65 the Year 2013 concerning the Standard Process for Primary and Secondary Education stated that the lesson plan is made for face-to-face learning activities that cover one or more meetings. The lesson plan was developed from the syllabus to direct students' learning activities to achieve Basic Competency (KD). The curriculum 2013 that implemented lesson plans is designed in detail from a subject matter or a specific theme that refers to the syllabus. The components and steps of lesson plan development are as follows: a) identity; b) list of learning objectives; c) list of learning material; d) list of learning method; e) the steps of learning activities; f) media/tools/material/learning resources) include assessment.

The Implementation of The Learning Process

Based on Minister of Education and Culture Decree Number 81, the Year 2013 concerning the implementation of the curriculum 2013 for the implementation of learning includes preliminary activities, core activities, and closing activities.

Preliminary activities

In preliminary activities, the teacher prepares the students psychologically and physically to participate in the learning process; asks the questions about the material that has been studied and related to the material to be studied; delivers the students to a problem or task that will be carried out to study a material, and explain the learning objectives or Basic Competencies to be achieved; and outlines the scope of the material and an explanation of the activities that students will do to solve problems or tasks.

Core activities

The core activities are learning processes to achieve goals, which are carried out interactively, imperatively, fun, challenging, motivating students to become information seekers actively, as well as providing sufficient space for the initiative, creativity, and independence according to their talents, interests, and developments physical and psychological learners. The core activities use methods tailored to the characteristics of learners and subjects, including observation, questioning, gathering information, associations, and communicating.

Closing activity

In the closing activities, the teacher, together with students and themselves, makes a summary/conclusion of the lesson, conduct an assessment and reflection on activities that have been carried out consistently and programmed, provide feedback on the process and results of remedy learning, enrichment programs, counseling services and assign tasks both individual and group assignments by the learning outcomes of students, and deliver learning plans at the next meeting.

METHOD

This research employed the qualitative approach. From the depth of its analysis and functional categories, this research can be classified as qualitative descriptive research with a naturalistic phenomenological approach that aims to find and find understanding or understanding a phenomenon in a particular contextual setting. This phenomenon can be in behavior, perception, motivational actions, and others holistically, using descriptions in words and languages by utilizing various natural methods (Moleong, 2013).

Data source

The data source in this study is English teachers at the Yogyakarta City High Schools who conduct English language teaching using a scientific approach and whose lesson plan is based on characteristics required by the Minister of Education and Culture Decree Number 22 the Year 2016 about curriculum 2013. This research was conducted in nine high schools in Yogyakarta, namely, Senior High School 9 Yogyakarta, Senior High School 10 Yogyakarta, Senior High School Taman Madya l Jetis Yogyakarta, Senior High School Muhammadiyah 3 Yogyakarta, Senior High School Muhammadiyah 5 Yogyakarta, Senior High School Muhammadiyah 7 Yogyakarta, Senior High School Pangudi Luhur Yogyakarta, Senior High School IT Abu Bakar, and Senior High School Piri 1 Yogyakarta. An English teacher who taught classes X, XI, and XII were selected from each school.

Instrument

This study used document review assessment sheets, observation assessment sheets, and interview sheets as the instruments for data collection. The lesson plan review sheet was used to collect data about the lesson plan using a scientific approach. These data were obtained from research on a lesson plan made by teachers before. The observation assessment sheet was used to obtain data regarding the process of implementing English teaching in the classroom, such as how the teacher carries out preliminary activities, how the teacher carries out the core activities, and how the teacher carries out the closing activities of the lesson. With the observation, the researcher could see the supporting factors and obstacles to teaching with this scientific approach. The interview sheet contained questions that aimed to get information from the English teacher. Interviews are aimed at English teachers to obtain information about teachers' mastery in preparing lesson plans, teacher abilities in carrying out learning and evaluating lesson plans, and teaching implementation in the classroom.

Data Collection Procedures

The researcher did several steps as the procedures for data collection.

1. The researcher designed the document review assessment sheet, observation assessment sheet, and interview sheet.
2. The researcher evaluated the lesson plan documents that the teachers had used to teach in the classroom.
3. The researcher observed the teaching process to see how English teachers implemented a scientific approach in the classroom.
4. The researcher interviewed nine English teachers from the nine high schools in Yogyakarta.

5. The researcher transcribed the result of the interview.

Data Analysis

Analysis of the data in this study used Miles, Huberman & Saldana's concept (Miles et al., 2013). The figure can be seen below.

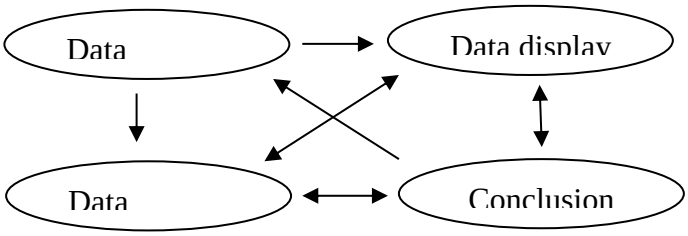

Figure.1 Component of Data Analysis: Interactive Model.

Data reduction

This phase covers the selection, simplification, validation, and transformation of data for getting the relevant data. It could be used to answer the research question. The results of this phase were the respondents' lesson plan, document review data, observation data, interview data, interview recordings, and research photos selected according to the formulation of the problem in the study.

Data display

The data display is the phase to display data systematically. It makes the data easier to read, understand, and lead at the themes that had been categorized. The researcher presented data on the review assessments sheet for the lesson plan in the form of tables categorized based on the themes contained in the table, namely the identity of the lesson, the main components of the lesson plan, and the completeness of the lesson plan components. Assessment of teaching implementation observations was presented in table form and categorized based on the themes contained in the table, namely preliminary activities, core activities, and closing activities. While the presentation of data from interviews in the form of interview scripts. The presentation of the data was also equipped with the data presentation table. The results of this phase were the description of the research results and analysis of the data obtained.

Concluding drawing/verifying

The conclusion is the phase of drawing conclusions. It was obtained from the review of the results of the lesson plan document review, the implementation of teaching in the classroom, and the results of interviews found in the scientific approach in the implementation of English language teaching in Yogyakarta City High School, which was described in the form of a report. The result of this phase is the conclusion of the research.

RESULTS AND DISCUSSIONS

Result of Data

Review of The Lesson Plans

Preparation of lesson plans refers to eight aspects grouped into three components; the lesson plan's identity, the main component of the lesson plan, and the completeness of the lesson plan's component. In the first component, the lesson plan's identity with five indicators, seven teachers wrote it in total, and two teachers did not write the fourth indicator, "writing the subject of the lesson." The second component of lesson plan preparation is the main component of the lesson plan with ten indicators. Eight teachers wrote in full from the ten indicators, and one teacher did not write the tenth indicator, "attaching the lesson plan completeness."

The third component of lesson plan preparation is the completeness of the lesson plan's component, which consists of twenty-nine indicators. From the twenty-nine indicators, eight teachers did not complete the nineteenth indicator; "the indicator of competency achievement was prepared using oppressive verbs that could be measured/carried out according to the characteristics of the subjects." One teacher did not write indicator twenty-tree completely, which says "provide an overview of the achievement of learning outcomes." One teacher did not complete the twenty-fifth indicator, "written in the form of items according to the scope of material included in the indicator of competency achievement or knowledge of basic competencies." One teacher did not write complete indicator twenty-six, which "contains material that is factual, conceptual, procedural, and /or metacognitive." Four teachers did not write the twenty-eight indicator, "accommodating local content can be in the form of local excellence, local wisdom, appropriate present, etc. with the material coverage on knowledge of basic competence." One teacher did not write a complete thirty-seventh indicator, "contains preliminary activities, core activities, and closing activities." One teacher did not complete the thirty-eighth indicator, "contains assessment design." Three teachers did not write in full forty-fourth indicator, "making HOTS questions and subject matter specific skills questions."

Implementation of The Scientific Approach in Teaching Process

The process of implementing the scientific approach in the teaching process refers to three components, namely the component of preliminary activities, core activities, and closing activities. In the component preliminary activities with five indicators, eight teachers implemented them. One teacher did not implement the fifth indicator, "conveying the steps of learning activities and competencies to be assessed." In the core activities with ten indicators, all were implemented by the teachers. In the closing activities with four indicators, three teachers implemented it. Six teachers did not implement the third indicator, namely "giving

homework assignments both individually and in groups," and the fourth indicator, "delivering learning plans at the next meeting."

Interviews

Interviews for English teachers were conducted to explore the information about teacher mastery in the preparation of lesson plans, the ability of teachers in the teaching process using a scientific approach, and the evaluation of lesson plans and the implementation of teaching.

Based on the interview done by nine teachers, they felt it difficult to do the five indicators in the scientific approach as a sequence. If they did as flexible, it could do well. In addition, the trouble could be found in the students' mood. It made them less ask and communicating. The teacher said that students sometimes could not focus on observing activities because they were busy with their handphones. The students also experienced difficulty doing HOTS tests that demanded them to think critically. It required the teacher to explain the material more.

Discussions

Based on the research, the teachers had been ready to implement the 2013 curriculum, which used the scientific approach in terms of preparing the lesson plan thoroughly and systematically according to the Minister of Education and Culture Decree Number 22 the Year 2016. The components and steps for developing a lesson plan had included identity, listing learning objectives, listing learning materials, listing learning models/methods, listing steps for learning activities, listing media/tools/materials/learning resources, and including assessments. Learning is expected to take place interactively, inspiring, fun, motivating students to participate actively, and compiling lesson plans based on core competencies and basic competencies or sub-topics held in one or more meetings. However, when examined more deeply, especially in formulating the components of the lesson plan, there were still some shortcomings. These shortcomings included formulating the GPA (Competency Achievement Indicator), formulating learning objectives, formulating learning materials, and assessing learning outcomes.

The Minister of Education and Culture Decree Number 22 the Year 2016 states that learning is the implementation of the lesson plans, including preliminary, core activities, and closing activities. In the preliminary activity, the teacher is obliged to:

a. Prepare students psychologically and physically to participate in the learning process.

b. Provide contextual motivation for students to learn according to the benefits and application of teaching materials in everyday life by providing local, national, and international examples and comparisons and adapted to the characteristics and levels of students.

c. Asking questions that relate previous knowledge to the material to be studied.

d. Explain the learning objectives or basic competencies to be achieved.

e. Delivering material coverage and explanation of activity descriptions according to the syllabus.

In the preliminary activity, the teacher carries out several opening activities such as building students' religious attitudes by praying before the learning begins, motivating students to learn, connecting the learning materials with student experiences, conveying the learning objectives and competencies that students must achieve, and conveying the steps of learning activities and competencies to be assessed. Teachers had done all the activities in the preliminary activity according to the data observation assessment sheet done by the researcher.

The core activities in the learning process include observing, asking questions, experimenting, associating, and communicating. The scientific approach to the curriculum 2013 applied in Indonesia requires five steps in the learning process. Based on the research, the core activities with five steps in the scientific approach had done by teachers well. But some students felt embarrassed or afraid in asking and communicating activities.

In the closing activity, the teacher and students, both individually and in groups, reflect on evaluating: the entire series of learning activities and the results obtained to further jointly find direct and indirect benefits from the learning outcomes that had taken place, provide feedback on the process and learning outcomes, carry out follow-up activities in the form of giving assignments, both individual and group assignments, and informing the learning activity plans for the next meeting. And in the research, not all teachers did all components of the closing activity.

CONCLUSIONS

Based on the results and discussion, it can be concluded that implementing a lesson plan with a scientific approach to learning English is good. It was evidenced in the lesson plan made by the teachers, which had shown the characteristics of the lesson plan as required by the Minister of Education and Culture Decree Number 81 the Year 2013. Besides, the English teaching process based on a scientific approach was expected to carry out the five learning steps (Observing, Asking, Experiment/Collecting Information, Association/Data Collection, and Communicating) based on the Minister of Education and Culture Decree Number 81, the Year 2013 in the curriculum 2013. From these aspects, the teacher performed well because of the five learning steps the teacher had carried out in the learning process. It was only constrained by students who were still ashamed or afraid of asking questions and communicating.

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