A. Curriculum

1. Curriculum in General

Curriculum plays an important role in education. It can be the main key to achieve the success of education. Curriculum started to be popular in Indonesia since 1950’s. It was popularized by education in USA. In the past, curriculum was regarded as lesson plan (Arifin, 2013: 8). But then, along with period development, the old definition of curriculum was neglected. Now days, many experts give definition of curriculum widely. These definitions come from dissatisfaction of the result of education in school and the wish to always improve.

Curriculum has meaning the subject taught in school or the course of study (Arifin, 2011: 7). The fact, the term of subject still use up to now. Some experts looked up the curriculum as a sequence of potential experiences set up in the school for purpose of disciplining children and youth in group ways of thinking and acting. It means curriculum is not only the subjects that are taught in the school but also all of the things that are needed for directness of teaching learning process. In other sides, Brown (2000: 16) stated curriculum designs are for carrying out a particular language program. The concern is in the specification of linguistic and subject matter, objective, sequencing, and material to meet
the needs of a designated group learners were in a defined context. Some view or understanding about curriculum which is still used up to now are: (a) Curriculum is what is taught in school; (b) Curriculum is a number of subject matters; (c) Curriculum is content; (d) Curriculum is a study program; (e) Curriculum is a number of learning materials; (f) Curriculum is a sequence of learning materials; (g) Curriculum is a number of objectives will be achieved; (h) Curriculum is a number of subject matters which are learned; (i) Curriculum is everything done in school, including the activity outside the classroom, guidance, and relationship between students; (j) Curriculum is what is taught either inside the school or outside the school guided by the school; (k) Curriculum is everything planned by the school; (l) Curriculum is a series of experience done by students in school; (m) Curriculum is what is experienced by student as the result of school (Poerwati and Amri, 2013:3).

While the definition of curriculum according to the Act No. 20 of 2003 about National Education system is it a set of plans and setting the objectives, content and learning materials as well as the way used to guide the implementation of learning activities to achieve specific educational goals (Chapter 1, Article 1, Paragraph 1).

From some definitions of curriculum above, it can be concluded that curriculum is part of education that covers at least subject matters,
students’ activities, learning materials, school plan, learning method and the last evaluation.

2. The 2013 Curriculum

Education in Indonesia has undergone several changes in the curriculum. In the last ten years, Indonesia experienced a change as much as twice. These changes are not without reasons, but there are several reasons in making decision changes the curriculum. In opening session of Deputy Minister of Education and Culture’s seminar with the title “The Implementation of the 2013 curriculum” explained that there are factors underlying the change in curriculum, they are: (1) concept of curriculum; (2) the book that is used; (3) learning process; and (4) the evaluation. (Kemendikbud, 2014).

Government changed the curriculum because of some reasons. According to Arifin (2011:3) curriculum must be dynamic. It means that the curriculum must always undergo the change in accordance with the times, science, and society needs. The reasons of changing the curriculum are explained in the table as follows.

Table 1

<table>
<thead>
<tr>
<th>Factors Causing Changes in the Curriculum</th>
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<tbody>
<tr>
<td>Public Perceptions</td>
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<tr>
<td>• Too focus on cognitive aspects.</td>
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<tr>
<td>• Students’ load is too</td>
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The 2013 Curriculum is designed to complement the previous curriculum, KBK and KTSP, where KBK and KTSP still separated subjects forming attitudes, skills and knowledge. While in the 2013 curriculum that is emphasized on the formation of attitude, skills and knowledge and it is obtained the three aspects of assessment in each subjects. Both in KBK and KTSP, competency standards were derived from content standards that were formulated based on course objectives (SKL of subjects) are detailed on standard competences and basic competences. Whereas in the 2013 curriculum standards of competence of graduates are derived from the needs. Then, the content of standards derived from SKL through its Core competencies that used for all subject. Finally, it can be concluded that the 2013 Curriculum is used to make our education better and appropriate with the needs. The purpose of education according to government regulation No. 17 years 2010 is to build the foundation for the development of students’ potentials to be human that are:

1) faith and fear of the lord of mighty one, noble and noble.

2) knowledgeable, skilled, critical, creative and innovative.

3) healthy, independent and confident.
4) tolerant, socially sensitive, democratic and responsible.

Because the 2013 Curriculum is a new curriculum, the characteristics of this curriculum are different from the previous curriculum. These are the characteristics of the 2013 curriculum based on

*Permendikbud No. 58 Tahun 2014* about the 2013 curriculum of Junior High School / Islamic Junior High School:

a. Curriculum content, that is competency, clarified in the form of Core Competence (KI) of class and further explained in Basic Competence (KD) of subject matters

b. Core Competence (KI) is a description of competence about attitude aspects, knowledge, and skill (cognitive, affective, and phycomotor) which must be learned by students. There are four (KI), they are; a) KI 1 deals with spiritual aspect, b) KI 2 deals with social aspect, c) KI 3 deals with knowledge aspect, d) KI 4 deals with skill aspect.

c. Basic Competence is a competence learned by students to subject matter in a certain class for Junior and Senior High School (SMP/MTs, SMA/MA, SMK/MAK)

d. Core Competence and Basic Competence in secondary education level focuses on attitude aspect while in medium level balances between attitudes and intellectual abilities.

e. Core Competence becomes organizational elements (organizing element) of Basic Competence is that all Basic Competence (KD) and
learning process developed to achieve competence in the Core Competence (KI)

f. Basic Competence is developed based on the principle of accumulative, reinforcing and enriching each other between subject matter and education level (horizontal and vertical organization)

g. Syllabus is developed as lesson plan to one subject (SMP/MTS, SMA/MA, SMK/MAK). In syllabus enclosed the whole Basic Competence (KD) to theme or subject in the class.

h. Lesson plan is developed from each KD for certain subject and class.

In addition, the 2013 Curriculum has its own style that deals with teaching learning process in the 2013 Curriculum. Here are the formula of new curriculum dealing with style of learning: a) learning by doing, b) integrated learning (knowledge, skill, and attitude), c) learning with scientific approach, d) adjusting the context of learning with the surrounding environment at school/home, e) learning sources are not only textbook and teacher, f) asking students to draw the conclusion from the concept discussed (discovery learning), g) emphasizing on higher order thinking skill, h) skill can be concrete things, abstract, and action, i) project based learning and collaborative learning

B. Scientific Approach

In teaching learning process, teachers have to know what teachers give to the students and how they give the knowledge to their students. It
means teacher should know what approach, method and technique that to be used to transfer knowledge to the students. Approach is the nature of the subject matter to be taught and method is the ways to present something based on the approach that is used (Richard, 2002:19). Whereas technique is the implementation that usually take place in the classroom. From the definition of approach, method and technique above, it can be concluded that to make teaching learning process more effective, both approach, method and technique can be used simultaneously.

In relation with implementation the 2013 curriculum, the government stated that the approach which is used is scientific approach. The term of “scientific” usually describes a process or standards required of a process, not kind an object or category of things (Kosso, 2011:1). It is usually followed by the words method, so if those are combined those will be scientific approach. Kosso (2011) stated scientific method is not much different from our day-to-day ways of learning about the world which means that scientific method is a process that is used in our day life to know and detect everything. For example, someone will eat bread, but there is something strange with the bread, then he suspects that the bread is spoiled. This condition called hypothesis. To make sure it, he checks the expiree. He looks at the bread and smells it. He is really sure that the bread has expired. This is the evidence that support you hypothesis. This is how scientific method runs to solve the problem.
Scientific method gives priority to the characteristic of life on the street than the result. In the collecting information or facts, it may take days, weeks, or even years. It is not a problem if the study takes a long time, because in scientific method the important things are the steps that can be answerable. So, in the implementation of scientific method, it will be better if the researcher report the true fact that happen in real condition to make the data more valid.

Scientific approach is an approach that helps students in recognizing the problem, formulate problems, find the solution, test answer while investigation, (collecting facts), and ultimately draw conclusions and present it orally and in written. Many experts believe that through a scientific approach, besides it can make students more active in constructing their knowledge and skills, also it can encourage learners to conduct an investigation to find the facts of phenomenon or event. (Sudrajat : 2013). It will make the students are trained to be able to think logically, coherently and systematically.

C. Scientific Approach in Teaching English

By the change of our curriculum from the KTSP to the 2013 Curriculum, makes the change in the implementation of those curriculums. Take one example is in the approach that was used. At the beginning 2000, the government decided to use genre approach to plan KBK because it was appropriate with the newest concept “communicative
competence” that was known at that time by Murcia, et al.(1995) in *Permendikbud No 58* about curriculum of junior high school. With the changes of times, the implementation of KBK or KTSP was considered not suitable with the goals of our education. This became one of the background for government to revise the curriculum covered it all and it changed by the 2013 curriculum that is considered able to meet the needs of the learners for their future and in accordance with the aim of education in Indonesia.

In the implementation of the 2013 curriculum, the genre approach is not used. It is changed with scientific approach that is believed is able to make the students more active and can explore their knowledge and their skills in the teaching learning process. To support the scientific approach, the method that can be used is cooperative learning. Teachers can use problem based learning, project based learning or discovery learning. Those methods will help students improving their skills in identifying the problem until giving the solution and making conclusion of the problems.

The scientific approach emphasizes modern pedagogical dimension in learning. According to *Kemendikbud (2013)*, it can be called as scientific approach if it consists of seven criteria of scientific approach, they are : first, learning materials based on facts or phenomena that can be explained by a certain logic or reasoning; going to the extent of approximately, fantasy, legend, or a mere fairy tale. Second, teachers’
explanation, students’ response, and educational interaction students free from prejudice necessarily, subjective thinking or reasoning that deviate from logical reasoning. Third, encourage and inspire students to think critically, analytically and precise in identifying, understanding, solving the problems and applying learning materials. Forth, encourage and inspire students to be able to think in hypothetical look at the differences, similarities and links to each other. Fifth, encourage and inspire students to be able to understand, implement, and develop the ways of thinking rationally and objectively in response to the learning materials. Sixth, it is based on the concept, theory, and empirical facts that can be answered. The last, the learning objectives are formulated in a simple obvious but interesting in the presentation system.

In the real condition, scientific approach is used for all subjects. Although English is the name of subject, in this subject students not only learn about English but also learn to do many things that is useful for their lives by using English. According to Kemendikbud (2013) scientific approach which has meaning natural based on human characteristic, broadly speaking the process of learning includes, (1) observing and repeating the action actively involving all the senses, (2) asking and questioning new things encountered, (3) trying to do the action independently, (4) building reasoning by comparing the ways, rules and strategies used by other or obtained from other sources, (5) performing
the new action that have learned and implement in the real life as social function of English itself.

The teaching learning process of English by using this approach according to *Permendikbud No 58 Tahun 2014* will be explained below:

1. **Observing**

   In this steps, the activities that can be done is the activities that are maximizing the use of all the senses; for example seeing, listening, reading or watching. Students have to observe the materials in form of social function, structure of the text, and language features from the text that have been listened or read. Here, the teacher has to prepare the students activities related to the material. This is done to make students more focused on the activities. It is aimed at defining to the material that will be taught. The observation focuses on content of message, not the theory about the text. Structure of the text and the language feature do not need to be explained here. Teacher can help students in this step in order to make their observation maximal, by giving question.

2. **Questioning**

   Questioning is a process of constructing knowledge about social function, language features, and structure text by group discussion or class discussion. Teachers have to develop their curiosity and critical thinking about the material. It is very useful for the students because it can help students to get the result of the observation well. At the
same time, students are taught to ask using English that is reasonable and meaningful. In this questioning stage, students’ mistakes are when they are asking is not important, but teacher can give feedback in the end of the teaching learning process. The problems that are often faced by the students’ are like the vocabulary building, the pronunciation and the structure of the sentence. In these steps, students can improve their vocabulary mastery and pronunciation skills.

3. Collecting information

Collecting the information can be done through trying or exploring the knowledge or skills that have been found or learned. In this process, students try to use the new things that they have learned and try to implement it in the real life. This is an individual activity that done collaboratively in the group. Have to remember, teachers’ role here are the facilitator and monitor. In this stage, students are given the chance to try and explore to reveal the meaning of the text being studied. Here, students’ creativity is very important and their activeness also needed to interact with their friends and teacher.

The activities that can be done in this stage are:

- Collecting the facts that will be presented.

- Experimenting and exploring for obtaining and selecting vocabulary, grammar, and the other language features to be able to communicate various facts that wish expressed and understood.
- Paying attention, giving feedback, and asking about the various statements made by their friends. This step is necessary to enrich and deepen comprehension of the text that learned.

- Delivering verbal statements that have been planned in writing.

- If necessary, write down every statement of all facts that wish expressed in the notebook respectively.

4. **Associating**

   Associating stage is a process developing the ability to categorize and compare a wide range of ideas and events to then put it into a fragment of memory. In this activity, the students are given the chance to link the information about the texts that is being studied with similar text in different form found in other sources for the goals of enriching and deepening the materials.

5. **Communicating**

   Communicating stage is aimed at developing students’ ability in presenting all of knowledge and skills that have been mastered or haven’t mastered yet, both orally and in writing. In this step, not only the ability in presenting the problem but also the problem that they faced in the previous stages also can be known here. So, description of three aspect of curriculum 2013, students’ attitude, knowledge and skills are described overall. Communicating stage include among other verbal interaction during learning process, oral presentation in
front of the class or in groups, to publish in wall magazines, etc. The result of this activity can be individual or group works.

In the implementation of scientific approach, those stages have to be done. In every stage, teacher should prepare all the things needed, for example the media, worksheets for students, etc. Those are aimed to make the teaching learning process more meaningful and interesting. It is important to help teacher in making meaningful and effective learning so that they don’t have missed the stages, even one stage. As scientific approach is an approach that is done chronologically, so teachers have to implement this approach chronologically too.

English has four skills that have to be mastered by students. Those skills are speaking, writing, reading and listening. In teaching learning process, those skills have to be covered well by the teacher. Since, scientific approach is used in implementation of 2013 curriculum, all skills can be taught integrated or individually. Based on the concept of 2013 curriculum, the integration can be divided into spoken and written. Spoken here is gotten from listening and speaking, while written is gotten from reading and writing. For supporting curriculum 2013, those integrated skills can be implemented by using scientific approach.

The example of implementation scientific approach in teaching writing, will be shown in table below:
<table>
<thead>
<tr>
<th>No</th>
<th>Steps</th>
<th>Teacher does</th>
<th>Students do</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Observing</td>
<td>- Divide students into some groups.</td>
<td>- Observe and read the text.</td>
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<tr>
<td></td>
<td></td>
<td>- Give an example of recount text.</td>
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</tr>
<tr>
<td>2</td>
<td>Questioning</td>
<td>- Give students stimulus to ask about the generic structure of the text.</td>
<td>- Ask themselves about generic structure of recount text.</td>
</tr>
<tr>
<td>3</td>
<td>Analyzing</td>
<td>- Help the students to answer the question by question and answer session.</td>
<td>- Try to answer their own question about the generic structure of the text.</td>
</tr>
<tr>
<td></td>
<td>(Associating and Experimenting)</td>
<td></td>
<td>- Try to conclude the correct answer of generic structure in their group.</td>
</tr>
<tr>
<td>4</td>
<td>Networking</td>
<td>- Ask the students to present their generic structure of the text based on their group discussion.</td>
<td>- Present their generic structure of the text.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Confirm the correct answer of generic structure.</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Creating</td>
<td>- Ask the students to make recount text by themselves.</td>
<td>- Make a recount text as shown in the example by using good generic structure.</td>
</tr>
</tbody>
</table>
e.g. of recount text for the material.

<table>
<thead>
<tr>
<th>Event 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Holiday in Bali</td>
</tr>
<tr>
<td>We <strong>had</strong> a wonderful holiday in Bali.</td>
</tr>
<tr>
<td>It <strong>was</strong> a really great place. The people <strong>were</strong> friendly, the food <strong>was</strong> great, and the weather <strong>was</strong> a lot better than at home. Most days <strong>were</strong> pretty. I <strong>swam</strong> two or three times a day, but my brother Fachri just <strong>spent</strong> all his time lying on the beach with his eyes <strong>closed</strong>.</td>
</tr>
<tr>
<td>Last Saturday I <strong>got</strong> on the bus and <strong>went</strong> to the north of the island, It <strong>was</strong> much quieter there than here—very beautiful, but no tourists. The next day we <strong>went</strong> across to the east coast to see some of the old villages.</td>
</tr>
<tr>
<td>I <strong>learned</strong> Balinese—I couldn't say much, but it <strong>was</strong> fun to try. Fachri actually <strong>spoke</strong> it quite well, but he <strong>was</strong> afraid to open his mouth, so I <strong>was</strong> the one who <strong>talked</strong> to people.</td>
</tr>
</tbody>
</table>

The example of recount text could be printed in different colours for each paragraph. It is aimed at helping students in analyzing the generic structure of recount text in the analyzing step. Besides that, the differences of colour in each paragraph will give stimulus to the students to make questions, for example: why does every paragraph have different colour? What does it mean? When the teacher is asked questions by the student, she or he should not answer the questions directly. Let the students answer their own questions. Teacher can help the students to answer their own questions by doing question and answer session. For example, what does the paragraph one tell us about? Then, students will answer based on their
analysis. After analyzing stage, students have to present their discussion of generic structure of the text. Furthermore, teacher has to confirm the correct generic structure of the text. When, students have known and understood about generic structure of recount text, they have to make a recount text with good generic structure. It is called creating step that can be added by teacher to know and measure students understanding and their writing ability.

D. Basic Assumption

The implementation of 2013 curriculum has been started on July 2013, In all of pilot schools in Indonesia. In this curriculum, the approach that is used is scientific approach that consists of several stages. The stages or the steps are observing, questioning, collecting data, associating and networking. Scientific approach is applied in all subjects in the school, so teacher has to know well about it. For pilot schools, this curriculum have been implemented in three semesters while for other schools have implemented it in one semester. because of that, the writer assumed that the implementation of the 2013 curriculum especially the scientific approach, the pilot schools are better than others who just used in one semester.

E. Hypothesis

Based on the assumption above, the hypothesis of this research is the scientific approach is implemented well in English teaching in State junior high schools (pilot schools) in Purwokerto.