CHAPTER III RESEARCH METHODOLOGY

This chapter highlights the methodology employed in the study. The discussion covers research design, site and participants, data collection method, and data analysis procedure in the study.

3.1 Research Design

The purpose of the study is intended to answer the following research questions.

- 1. How do junior high school teachers develop teaching materials?
- 2. What challenges do the teachers encounter in developing teaching materials?

Based on those two research questions, this study employed a qualitative case study classified into document analysis which focuses on analyzing and interpreting recorded materials (Ary, Jacobs, & Sorensen, 2010, p.29). Qualitative case study is a deeper comprehension and detailed study about certain social phenomena in the real life and allows the researcher to do study in small quantity of respondents (Silverman, 2001, in Tavallaei & Talib, 2010, Kohlbacher, 2006, and Emilia, 2009). Qualitative case study was used to provide a deeper comprehension and detailed study about teachers' way in developing materials, and teachers' challenges in developing materials.

3.2 Research Site and Participant

This research was conducted in a junior high school in Pringsewu regency, Lampung Province. It involved three English teachers in the same school as the participants of the study. The reason for choosing the participants was these three

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teachers developed their own teaching materials for teaching-learning process. It was known because the researcher has ever been an assistant teacher at the school.

3.3 Data Collection Method

To collect the data, two techniques were used in this study, namely documents and interviews. To make it simply, the data collection process can be seen in the flow chart below and then explained by each plot in the next session:

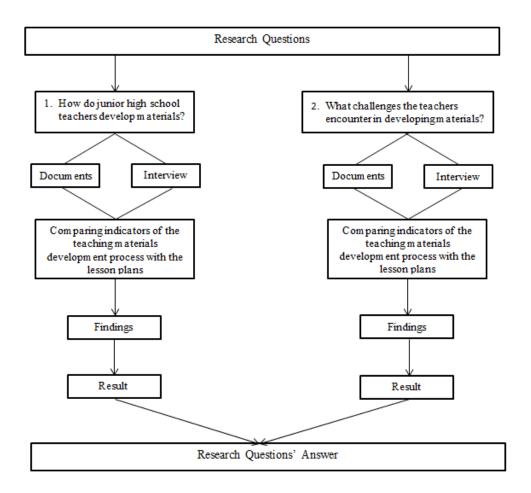


Chart 3.1. Data collection process

Each plot of the data collection technique in the flow chart above is explained below.

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3.3.1 Documents

Documents were used to collect the non-human source data (Alwasilah, 2015). The documents in this study consist of 2 types of documents. Those are teaching materials (which developed after the lesson plan) and lesson plans. Those documents have two purposes as follows:

 to get data about the first research question, namely how secondary school teachers develop teaching materials. The data is obtained by comparing the indicators of the teaching materials development procedure with teaching materials and based on lesson plans. The indicators of the teaching materials development process used are adapted from Tomlinson (1998) and Richards (2001):

No	Steps/procedures	Implemented	Description
1.	Identify needs or problems (what approach to use).		
2.	Explore needs or problems (what purpose, what		
	skills, what media).		
3.	Contextual realizing (the finding of suitable ideas,		
	contexts or texts with which to work).		
4.	Pedagogical realizing (the finding of appropriate and		
	sequential from easy to difficult exercises, activities,		
	and the simplicity of the instruction).		
5.	Composing the instructional materials for the course		
	based on stipulated lesson plan (anything which can		
	be used to facilitate the learning process linguistic,		
	visual, and audio).		
6.	Considering physical of production (layout, color,		
	type size, visuals, reproduction, tape length, etc).		
7.	Getting experts to review the prototype of the		
	developed materials (being signed)		

Table 3.1. Indicator of teaching materials development procedure adapted by Tomlinson (1998) and Richards (2001)

The results is in the form of the comparison of conformity between procedures carried out by the teacher and by the experts.

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2. to get data about the second research question, namely what challenges the teachers encounter in developing teaching materials. The data is obtained by comparing the indicators of lesson plan's component with teaching materials and based on the lesson plans. The indicators of the lesson plan's components used are adapted from Brown (1995) and Ministry of Education and Culture (2013):

No	Components in lesson plan	Implemented	Description
1.	Teaching Approach; teaching steps (compatibility	_	
1.	with the approach syntax)		
2.	Teaching Syllabus; teaching objectives (reflect		
۷.	teaching objectives in the activities carried out).		
	Teaching techniques:		
	a. Teaching models (reflect teaching models in		
	the activities carried out).		
3.	b. Teaching methods (reflect teaching methods		
	in the activities carried out).		
	c. Teaching media (reflect teaching media in		
	the activities carried out).		
	Teaching exercises/assessment; practice language		
4.	material (between students, students to themselves,		
4.	students to teachers, students to groups, students to		
	cassette players, students to class and so forth		

Table 3.2. Indicator of lesson plan's components adapted by Brown (1995) and Ministry of Education and Culture (2013)

The results is in the form of the comparison of conformity between procedures carried out by the teacher and by the experts.

3.3.2 Interview

Referring to Merriam (1988, as cited in Alwasilah, 2015), interviews are conversations with purposes. Therefore, interview method was needed for this study. The interview was conducted in the form of individual and semi-structured interview. This type of interview was chosen since Creswell (2012 pp.217-222) pointed out that the form of semi-structured interview was conducted with several guiding questions, but it was still possible to have spontaneous questions if the questions prepared did not meet the intended purpose. This definition is in **Ivani Noviarani, 2018**

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accordance with the purpose of conducting interview in this study that is to confirm whether the results of the document method findings are true. Furthermore, this interview also aimed at getting further findings about the possibility of things not found through document analysis methods. Some guiding questions prepared and are based on the findings of the research questions outlined in the following explanation:

- 1. Findings of the first research question, namely how secondary school teachers develop teaching materials. The data was obtained by comparing the indicators of the teaching materials development procedure with teaching materials based on the lesson plan. The indicators of the teaching materials development procedure used are adapted from Tomlinson (1998) and Richards (2001) in the form of interview questions:
 - 1. Sebagai permulaan dalam mengembangkan bahan ajar, apakah ibu melakukan identifikasi pendekatan apa yang akan ibu gunakan didalam bahan ajar ini?
 - 2. Setelah itu apakah ibu menentukan apa sajakah tujuan dari kegiatan-kegiatan, keterampilan apa saja, dan media apa saja yang akan dimuat dan digunakan didalam bahan ajar ini?
 - 3. Lalu, dalam menginput materi dan sumber belajar kedalam bahan ajar ini, apakah ibu mempertimbangkan realisasi kontekstual dan kesesuaiannya untuk siswa?
 - 4. Ketika menyusun konten (baik kegiatan-kegiatan, maupun latihan-latihan) dalam bahan ajar ini, apakah ibu urutkan dari yang mudah ke yang sulit?
 - 5. Dalam menyusun bahan ajar ini, apakah ibu persis menjadikan rencana pembelajaran (RPP) sebagai patokan?
 - 6. Sebagai tahap akhir pengembangan bahan ajar, apakah ibu melakukan pertimbangan mengenai hal-hal fisik produksi seperti tata letak, warna, ukuran jenis, visual, reproduksi, panjang pita, dll?
 - 7. Sebelum diperbanyak dan digunakan dalam KBM, apakah ibu memberikan prototipe bahan ajar ini terlebih dahulu kepada kepala sekolah untuk dievaluasi dana tau untuk ditanda tangani?

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The result is in the form of the comparison of conformity between procedures carried out by the teacher and by the experts.

2. Findings of the second research question, namely what challenges the teachers encounter in developing materials. The data was obtained by comparing the indicators of lesson plan's component with teaching materials and based on lesson plans. The lesson plan component indicators used were adapted from Brown (1995) and the Ministry of Education and Culture (2013) in the form of interview questions:

	Apakah anda menghadapi tantangan dalam:	Ya, karena	Tidak, karena
1.	Merealisasikan syntax pendekatan		
	pembelajaran kedalam langkah-langkah		
	pembelajaran?		
2.	merealisasikan tujuan pembelajaran ke dalam		
	kegiatan pembelajaran?		
3.	Teknik pembelajaran:		
	a. Merealisasikan model pembelajaran ke		
	dalam kegiatan pembelajaran?		
	b. Merealisasikan metode pembelajaran ke		
	dalam kegiatan pembelajaran?		
	c. Merealisasikan media pembelajaran ke		
	dalam kegiatan pembelajaran?		
4.	Merealisasikan assessment yang variatif?		
5.	Mengembangkan bahan ajar (secara		
	keseluruhan)?		

Table 3.3. Indicator of lesson plan's components adapted by Brown (1995) and Ministry of Education and Culture (2013)

The results is in the form of the comparison of conformity between procedures carried out by the teacher and by the experts.

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3.4 Data Analysis

The data obtained from documents and interview were analyzed using qualitative method in order to identify how teachers developed materials and to investigate teachers' challenges in developing materials.

In analyzing the data, the author used an interactive model by Miles and Huberman (1994 p.12) which divides the data analysis procedure into three steps: reducing data, displaying data, and drawing conclusions and interpreting. This process can be seen in Figure 3 below:



Figure 3.1. Procedures of Data Analysis: Interactive Model (Miles and Huberman, 1994:12)

After the data collected, the first step taken in data analysis is to reduce data. This refers to the process of selecting, focusing, simplifying, abstracting, and transforming data that appears in notes or transcription (Miles and Huberman, 1994: 10). The second process is to display data. Miles and Huberman (1994: 11) explain the process of displaying data as "a collection of compressed and compressed information that allows drawing conclusions and actions". In this study, the results of document analysis and interviews were classified and analyzed to obtain a clear findings of data. The final step in the interactive model Miles and Huberman (1994: 11) is drawing conclusions. In this research, the conclusions are taken by correlating and matching between findings to get a description of the way the teachers develop teaching materials and challenges the teachers encounter in developing teaching materials. The specific data analysis process can be seen in the flow chart below:

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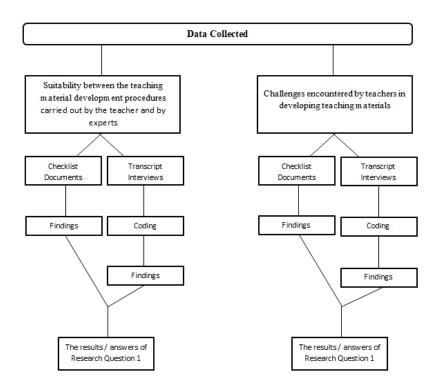


Figure 3.2. Data Analysis process

Each plot of the data analysis technique in the flowchart above is explained below:

3.4.1 Documents

Documents were analyzed twice and based on each research objectives, those are:

1. to answers the first research question, namely how secondary school teachers develop teaching materials. Checklist data that has been obtained by comparing indicators of the teaching materials development procedures with teaching materials and based on lesson plans then concluded into what procedures are carried out by the teachers when developing teaching materials. This result was called temporary findings about the way teachers develop teaching materials. This findings is reported in table form as follows:

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No	Steps/procedures	P.1	P.2	P.3
1.	Identify needs or problems (what approach to use).			
2.	Explore needs or problems (what purpose, what skills, what media).			
3.	Contextual realizing (the finding of suitable ideas, contexts or texts with which to work).			
4.	Pedagogical realizing (the finding of appropriate and sequential from easy to difficult exercises, activities, and the simplicity of the instruction).			
5.	Composing the instructional materials for the course based on stipulated lesson plan (anything which can be used to facilitate the learning process linguistic, visual, and audio).			
6.	Considering physical of production (layout, color, type size, visuals, reproduction, tape length, etc).			
7.	Getting experts to review the prototype of the developed materials (being signed)			

Table 3.4. The teacher's procedure in developing teaching materials findings (adapted from Tomlinson (1998) and Richards (2001))

2. to answers the second research question, namely, what challenges encountered by teachers in developing teaching materials. Checklist data that has been obtained by comparing indicators to the lesson plan component indicators with teaching materials, which were based on lesson plans, then concluded to be what challenges faced by teachers in developing teaching materials. These results are called temporary findings about teachers' challenges in developing teaching materials. This findings is reported in table form as follows:

No	Components in lesson plan	P1	P2	P3
1.	Teaching Approach; teaching steps (compatibility			
1.	with the approach syntax)			
2.	Teaching Syllabus; teaching objectives (reflect			
۷.	teaching objectives in the activities carried out).			
	Teaching techniques:			
	a. Teaching models (reflect teaching models in			
	the activities carried out).			
3.	b. Teaching methods (reflect teaching methods			
	in the activities carried out).			
	c. Teaching media (reflect teaching media in			
	the activities carried out).			
4.	Teaching exercises/assessment; practice language			

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	material (between students, students to themselves,		
	students to teachers, students to groups, students to		
	cassette players, students to class and so forth		

Table 3.5. The teacher's challenges in developing teaching materials findings (adapted from Brown (1995) and Ministry of Education and Culture (2013))

3.4.2 Interview

Interview conversations were recorded through audio recordings to store information safely. Then, the data was transcribed, encoded, and interpreted according to the purpose of each research question being temporary findings. The following part is a complete explanation of the interview data analysis based on the objectives:

1. Findings about the first research question, namely how secondary school teachers develop teaching materials. The data that has been obtained by comparing the indicators of teaching materials development procedure with teaching materials based on lesson plans was then coded to facilitate interpretation and findings. The findings is reported in the table as below:

No	Steps/procedures	P.1	P.2	P.3
1.	Identify needs or problems (what approach to use).			
2.	Explore needs or problems (what purpose, what skills, what media).			
3.	Contextual realizing (the finding of suitable ideas, contexts or texts with which to work).			
4.	Pedagogical realizing (the finding of appropriate and sequential from easy to difficult exercises, activities, and the simplicity of the instruction).			
5.	Composing the instructional materials for the course based on stipulated lesson plan (anything which can be used to facilitate the learning process linguistic, visual, and audio).			
6.	Considering physical of production (layout, color, type size, visuals, reproduction, tape length, etc).			
7.	Getting experts to review the prototype of the developed materials (being signed)			

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Table 3.6. The teacher's procedure in developing teaching materials findings (adapted fromTomlinson (1998) and Richards (2001))

2. Findings about the second research question, namely, what challenges faced by teachers in developing teaching materials. Checklist data that has been obtained by comparing the lesson plan component indicators with teaching materials, which are based on lesson plans, were then concluded to find out what challenges faced by the teacher in developing teaching materials. These results are called temporary findings about the challenges of teachers in developing teaching materials. This findings is reported in table form as follows:

No	Components in lesson plan (RPP)	P1	P2	P3
1.	Teaching Approach; teaching steps (compatibility			
	with the approach syntax)			
2.	Teaching Syllabus; teaching objectives (reflect			
2.	teaching objectives in the activities carried out).			
	Teaching techniques:			
	a. Teaching models (reflect teaching models in			
	the activities carried out).			
3.	b. Teaching methods (reflect teaching methods			
	in the activities carried out).			
	c. Teaching media (reflect teaching media in			
	the activities carried out).			
	Teaching exercises/assessment; practice language			
4	material (between students, students to themselves,			
4.	students to teachers, students to groups, students to			
	cassette players, students to class and so forth			

Table 3.5. The teacher's challenges in developing teaching materials findings (adapted from Brown (1995) and Ministry of Education and Culture (2013))

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