CHAPTER III
RESEARCH METHOD

This chapter discusses aspects of the methodological approach and procedures used to explore the answers to the research questions below.

1. What are the language attitudes and orientations of students of former pilot international standard senior secondary schools (R-SMA-BI) toward the English language, learning English and English as a medium of instruction?

2. Are school' types and demographic profiles reflected in the students' language attitudes?

3. How are the students' attitudes toward the English language, learning English and English as a medium of instruction interconnected in educational contexts?

Based on the above research questions, the chapter, thus, includes sections on defining research design, portraying sites and participants, delineating data collection technique, and outlining the data analysis. The first section provides an explanation how this research was designed as a case study involving quantitative and qualitative data. The second section presents a depiction of the research site as bounded on particular schools where the problems were found. The third section describes the participants involved in this research and the justification of why they were selected. The next section presents how each technique of data collection was constructed and used in gathering the data needed in this study. The last section, section 3.5, explains the detailed procedures how the data were analyzed. This chapter concludes with a section summarizing all the relevant aspects of the research methodology employed in this study.

3.1 Research Design

In answering the aforementioned research questions, two types of data—quantitative data and qualitative data—were required. By combining quantitative and qualitative data, language attitudes of former pilot international standard secondary schools students (R-SMA-BI) can be understood. According to Sandelowski (2003) cited in Dornyei (2007), there are two main purposes for combining methods: (a) to achieve a

fuller understanding of a target phenomenon and (b) to verify one set of findings against the other.

Quantitative data were used to obtain the general picture of students' language attitudes. In this regard, the researcher used survey questionnaire since a survey typically is used to scan a wide field of issues in order to measure or describe any generalized features (Cohen, Manion, & Morrison, 2007) including the changing demographic context, the institutional settings, and the policies that affect learning and teaching (Nunan & Bailey, 2009) from relatively small number of individuals in that group (Marshall & Rossman, 1995). Moreover, most surveys also describe the incidence, frequency, and distribution of the characteristics of an identified population. In addition to being descriptive, surveys can also be used to explore relationships between variables, or in an explanatory ways (Mcmillan & Schumacher, 2001).

On the other hand, qualitative data were used to clarify the quantitative data, a process usually called triangulation (Dornyei, 2007: 165). In this regard, interviews were used to generate in-depth perspectives of the participants since this technique helps uncover the participants' views but otherwise respects how the participant frames and structures the response (Marshall & Rossman, 1995).

Although this study used survey including in quantitative research, based on Yin (2003) this study can be considered as a case study. He clearly states "a survey could be designed as part of case study and produce quantitative data as part of the case study evidence". Additionally, other characteristics of case study could be found in this study wherein this study was conducted in small scale (Connole, et al., 1993), particularly at former R-SMA-BI in Pekanbaru. Then, the use of EMI in teaching and learning process can be categorized as "the case" in terms of a program (Merriam, 1988). Besides, this study employed two techniques in collecting the data, namely questionnaires and interview as suggested in a case study (Yin, 2003).

3.2 Research Site

This research was conducted at all former pilot international standard senior secondary schools (R-SMA-BI) comprising two public senior secondary schools and two private senior secondary schools located in Pekanbaru, Riau Province. This research was approved by the government of Kota Pekanbaru (*Pemerintah Kota*

Pekanbaru) to be conducted in 2013-2014, and then endorsed by Education office of the city of Pekanbaru (*Dinas Pendidikan Kota Pekanbaru)* and Education office of the province of Riau (*Dinas Pendidikan Provinsi Riau)*. These schools were chosen with three considerations. First, they were representing environment providing more English exposure where English was used as a compulsory subject and medium of instruction. Besides, in terms of feasibility and accessibility, the researcher had no problem in gaining the data because he was familiar with these schools, so it would make it easier to conduct the research (Bogdan & Biklen, 1998). Finally, even though these schools were included in pilot international standard senior secondary schools (R-SMA-BI), they were different in terms of the school system as presented in the following sections.

3.2.1 SMA A

Located in the outskirt of Pekanbaru City, this school is a public boarding school under the administration of the government of Riau province with around 300 students, all of whom were enrolled in one major, namely natural science. The students, coming from different family backgrounds, are from various regions in Riau province. The students who studied in this school were funded by the government of Riau Province (Interview with the vice principal, 10 December 2013).

3.2.2 SMA B

This is a public school located in the center of the city of Pekanbaru. It has been regarded as one of the favorite secondary schools in Pekanbaru, with approximately 805 students enrolled in the school. Most of the students came from middle to high-income families in Pekanbaru. This school provided regular and acceleration classes with two majors: natural and social sciences (Interview with the vice principal, 07 December 2013).

3.2.3 SMA C

This private senior secondary school is located in the area of Chevron Pacific Indonesia (CPI) Company in Pekanbaru. The students mostly came from middle to upper socio-economic background, with the majority of students having parents who were the employees of Chevron Pacific Indonesia (CPI) Company. The numbers of students in this school were 494 students enrolled in two majors: natural science and social science (Interview with the vice principal, 04 December 2013).

3.2.4 SMA D

This school is a private Islamic boarding school located in the outskirt of the city of Pekanbaru. This school employed national curriculum and *pesantren* curriculum. The students mostly came from outside Pekanbaru with the middle socio-economic background. The numbers of students recruited for 2012/2013 academic year were about 295 students, all of whom were enrolled in two majors: natural and social sciences (Interview with the vice principal, 05 December 2013).

3.3 Participants

The participants of this study were students of former pilot international standard senior secondary schools in Pekanbaru including the first, second and third year students who chose science program (*IPA*). These students represented their level of experience in attending bilingual instruction, in which the third year students had attended bilingual education for three semesters, the second year students had attended bilingual education for one semester, and the first year students had never attended bilingual class. Based on the aforementioned consideration, the researcher took two classes of each grade of each school conveniently. This technique is known as stratified cluster convenient sampling technique (Cohen, Manion, & Morrison, 2007).

The total samples for the survey were 656 students, comprising 219 students of the first year, 202 students of the second year, and 235 students in the third year. The majority of the students came from Pekanbaru and the other regions in Riau province. These participating students consisted of 305 male and 351 female who graduated from former pilot international standard junior secondary schools (171 students or 26%) and Non-RSBI junior secondary schools (485 students or 74%). They were good in English subject as indicated by their latest English score, in which 112 (17%) students achieved ≥ 90, 380 (58%) students got ≥ 80 and 164 (25%) students obtained ≥ 70. Furthermore, most of them used to attend English course (417 or 64%), while the rest of them never did (239 or 36%). In terms of the age, 232 (35.4%) students were ≥ 17 years old, 229 (34.9%) students were 16 years old, and 195 (29.7%) were ≤ 15 years old. Additionally, the ethnicity of the participants were Malay (217 students or 33.1%), Minangkabau (146 students or 22.3%), Javanese (111 students or 16.9%), Bataknese (61 students or 9.3%), Sundanese (11 students or 1.8%), Chinese (11 students or 1.8%) and others (99

students or 14.9%). Specifically, demographic information of participants of each school can be seen in the following table.

Table 3. 1 Demographic comparison between the groups of respondents

Demographic Profile		SMA A		SMA B		SMA C		SMA D	
		F	%	F	%	F	%	F	%
Grades	Grade XII	69	33.99	54	33.54	60	40.82	52	35.86
	Grade XI	60	29.56	48	29.81	47	31.97	47	32.41
	Grade X	74	36.45	59	36.65	40	27.21	46	31.72
Gender	Male	136	67.00	56	34.78	73	49.66	40	27.59
	Female	67	33.00	105	65.22	74	50.34	105	72.41
Age	≥ 17	66	32.51	52	32.30	67	45.58	48	33.10
	16	81	39.90	52	32.30	46	31.29	49	33.79
	≤ 15	56	27.59	57	35.40	34	23.13	48	33.10
Additional	Take	127	62.56	104	64.60	122	82.99	64	44.14
English Course	Not Take	76	37.44	57	35.40	25	17.01	81	55.86
Educational	RSBI	48	23.65	38	23.60	2	1.36	84	57.93
Background	Non-RSBI	155	76.35	123	76.40	145	98.64	61	42.07
English ability	High	44	21.67	45	27.95	14	9.52	9	6.21
	Mid	147	72.41	103	63.98	95	64.63	35	24.14
	Low	12	5.91	13	8.07	38	25.85	101	69.66
Ethnic	Malay	102	50.25	48	29.81	11	7.48	59	40.69
	Minangkabau	42	20.69	42	26.09	38	25.85	21	14.48
	Javanese	33	16.26	25	15.53	17	11.56	36	24.83
	Bataknese	10	4.93	23	14.29	17	11.56	11	7.59
	Sundanese	3	1.48	1	0.62	3	2.04	4	2.76
	Chinese	0	0.00	9	5.59	2	1.36	0	0.00
	Others	13	6.40	13	8.07	59	40.14	14	9.66

By choosing these participants, it is assumed that the students' language attitudes can be measured since the most relevant and plentiful data (Yin, 2011) and the broadest range of information and perspectives on the subject of study (Kuzel, 1992 in Yin, 2011) were obtained.

For the interview, 44 participants were chosen purposively (Yin, 2011; see also Fraenkel, Wallen, & Hyun, 2012) under some criteria as proposed by Tremblay (1989:155): (1) *Role in the community.* His/her formal role should expose him/her continuously to the kind of information being sought. (2) *Knowledge.* In addition to having direct access to the information desired, the informant should have absorbed the information meaningfully. (3) *Willingness.* The informant should be willing to communicate his knowledge to the interviewer and to co-operate with him as fully as possible. (4) *Communicability.* He should be able to communicate his knowledge in a manner that is intelligible to the social scientist. (5) *Impartiality.* As an ideal, personal

bias should be at a minimum, and such biases as do exist should be known to the research worker. For instance, if the informant has a bias conditioned by his class position, this should be known to the interviewer so that its effects can be properly appraised.

To fulfill the criteria, the researcher was assisted by the English teachers of each school in selecting the participants. Therefore, the participants of the interview were recommended by the English teachers. Specifically, the students who were interviewed comprised 22 male and 22 female with category 16 students of grade X, 12 students of grade XI and 16 students of grade XII. Based on the types of schools, the interview participants consisted of 12 students of the public boarding school, 12 students of the public school, 12 students of the private Islamic boarding school and 8 students of the private school.

3.4 Data Collecting Techniques

This study employed multiple techniques of data collections. As a case study, the use of multiple methods of data collection has been the major strengths of a research (Merriam, 1988:69, Yin, 2003:97) and increased the validity of the research result (Maxwell, 1996; Alwasilah, 2011). Furthermore, in the tradition of qualitative research, the inclusion of multiple methods of data collection refers to what is called triangulation (Merriam, 1988; Alwasilah, 2011; Yin, 2003; Dawson, 2009; Burns, 2010; Stake, 2010). Through triangulation, a researcher is in the process of "cross-checking and strengthening the information (Burns, 2010:95) or "looking again and again, several times" (Stake, 2010: 123) of the observed phenomena.

The techniques used in this research included questionnaire and interviews. Basically, questionnaires and interviews were used by the researcher to convert information directly obtained from "inside a person head", to measure what a person knows (knowledge or information), what a person likes or dislikes (values or preferences), what a person thinks (attitudes and beliefs), what experiences have taken place (biography) and what is occurring in the present (Tuckman, 1978).

Since questionnaire and interview are ways of obtaining data about persons by asking them, the self-report approach incorporated in questionnaires and interviews present certain problems because (a) respondents must cooperate when completing

questionnaires or interviews, (b) they must tell what is –rather than what they think ought to be or what they think the researcher would like to hear, and (c) they must know they feel and think in order to report it (Tuckman, 1978:197). Hence, in preparing questionnaire and interviews, the researcher constantly applied the following criteria:

1. To what extent might a question influence respondents to show themselves in a good light?
2. To what extent might a question influence respondents to be unduly helpful by attempting to anticipate what researchers want to hear or find out?
3. To what extent might a question be asking for information about respondent that they are not certain, and perhaps not likely, to know about themselves? (Tuckman, 1978: 197)

3.4.1 Questionnaires

In the present study, a questionnaire was used as the first technique to collect the data needed for this study. The followings are some of the considerations for the use of the questionnaire in this study. Firstly, the questionnaire is one of the most common methods of collecting the data on attitudes and opinions from a large group of participants (Mackey & Gass, 2005). Secondly, it enables the researcher to collect a large quantity of data in a relatively short period of time. Besides, this technique provides a wide variety of information gathered from respondents, particularly if the questions are multiple-choice types that allow them to express their opinion by merely marking one item from a list of options (Thomas, 2003).

Referring to the considerations above, the questionnaire for this study was constructed into three parts, including factual questions, closed-ended questions, and a mixture of close-ended questions and open-ended questions. Moreover, the items were written in Bahasa Indonesia to facilitate the respondents' understanding to respond to the questionnaire items. In addition, various informal criteria for editing statements to be used in the construction of attitudes scales were taken into account (Edwards, 1957:13-14). These include:

1. Avoiding statements that refer to the past rather than to the present.
2. Avoiding statements that are factual or capable of being interpreted as factual.
3. Avoiding statements that may be interpreted in more than one way.
4. Avoiding statements that are irrelevant to the psychological object under consideration.
5. Avoiding statements that are likely to be endorsed by almost everyone or by almost no one.

6. Selecting statements that are believed to cover entire range the affective scale of interest.
7. Keeping the language of the statements simple, clear, and direct.
8. Statements should be short, rarely exceeding 20 words.
9. Each statement should contain only one complete thought.
10. Statements containing universal such as all, always, none and never often introduce ambiguity and should be avoided.
11. Words such as only, just, merely, and others of a similar nature should be used with care and moderation in writing statements.
12. Whenever possible, the statement should be in the form of simple sentences rather than in the form of a compound or complex sentences.
13. Avoiding the use of words that may not be understood by those who are to be given the completed scale.
14. Avoiding the use of double negatives.

The first section of the questionnaire contained factual questions aiming to obtain background information about the respondents. The questions in this section attempt to seek information about name, age, gender, English ability, the category of the previous school attended, attending an additional English class, and ethnic. The information obtained from the factual questions was used to classify the respondents. They were also analyzed as variables that may influence language attitudes. These variables are chosen because they have been identified in the literature as factors which often influence language attitudes, a major goal of this research.

The second section of the questionnaire comprised close or structured attitudinal statements. This kind of questionnaire is a highly structured data collection instrument which aims to obtain data in statistical or quantitative ways (Dornyei, 2003: 14; Dornyei & Taguchi, 2010; see also Cohen, Manion & Morrison, 2007: 321; Marshall & Rossman, 2006: 125-126; Wallace, 1998:99) which dominate attitudes measurement (Krosnick, Judd, & Wittenbrink, 2005). In this case, the students were asked the same questions (Stake, 2010: 99) to portray statistically the variability of certain features in a population (Marshall & Rossman, 2006: 125). In this study, the statements of closed ended questionnaires were developed specifically to find out students' language attitudes based on the theories of language attitudes in the literature review (e.g. Oppenheim 1992; Sartain, 1958; Baker 1992).

This close-ended questionnaire consisted of 22 items (see table 3.2) elaborated from three types of language attitudes and three aspects of language attitudes: cognitive, affective and conative. Some items were adapted from previous studies such

as Gardner & Lambert (1972), Baker (1992) and some others were constructed by the researcher. The items were expanded in five points Likert scale with a degree of *agreement:* strongly agree, agree, undecided, disagree, and strongly disagree (see Edwards, 1957; Oppenheim, 1992; Gardner, 1985). Likert scale is a popular instrument for measuring attitudes (Thomas, 2003; Sartain, et. al., 1958).

Table 3. 2 Indicators of Close-Ended Questionnaire
(Adapted from Baker, 1992)

Attitudes toward English	Indicators	Numbers of items	Question
Attitudes toward the English language	The importance of the English language	5	1,2,5,7,8
	Feeling toward the English language	3	13,14,15
	Intention of action for the English language	2	19, 21
Attitudes toward learning English	The importance of learning English	2	6,10
	Feeling toward learning English	2	3,11
	Intention of action for learning English	2	17,22
Attitudes toward English as a medium of instruction	The importance of English as a medium of instruction	2	4,9
	Feeling toward English as a medium of instruction	2	12,16
	Intention of action for English as a medium of instruction	2	18, 20

The third part of the questionnaire is the open-ended questions that can certainly be used to measure attitudes. The accumulated literature suggests that these may well be worthwhile under some circumstances (Krosnick, Judd, & Wittenbrink, 2005; see also Dornyei, 2003:47). It consisted of 6 items (see table 3.3). It was employed to crosscheck data gathered through close-ended questionnaire and to obtain the data dealing with factors influencing students' language attitudes by exploring their attitudes orientations toward English as language, learning English, and using English as a medium of instruction. Additionally, this part was also used to gather students' opinion about the role of extracurricular activities, parental encouragement, peer support, and mass media exposure in improving their English proficiency.

In order to simplify the task, the respondents have to give two answers for each question. For the first answer the students have to tick either "does apply" or "does not apply" and then they have to explain their decision. This type of questionnaire was

utilized to provide data in qualitative or exploratory ways since it was permitted greater freedom of expression to students (Dornyei, 2003: 14). At the same tone, Oppenheim (1966:41) states that the freedom of expression given to the students is the chief advantages of the open-ended questionnaire.

With some consideration as suggested by Dornyei (2003: 48; see also Dornyei & Taguchi, 2010), this open-ended questions were deliberately placed at the end of the questionnaire to assure that the participants would not leave out the closed items due to lack of time or become discouraged with the open-ended questions at the very beginning of the survey. To set the students' opinion that they are not going to be evaluated, instead, they are required to share their stance and experiences, the questionnaire entitled "English in my perspective".

Table 3. 3 Items of Open-ended Questionnaires

Attitudes toward English	Questions
Attitudes toward the English language	I think English is very important/ less important/ unimportant for me, because… I feel English is enjoyable/ less enjoyable/ boring, because…
Attitudes toward English subject	I think learning English is very important/ less important/ unimportant for me, because… I feel learning English is enjoyable/ less enjoyable/ boring, because…
Attitudes toward English as a medium of instruction	I think, the teachers of Science and Math subject should use English/ mixing English and Bahasa Indonesia/ Bahasa Indonesia as medium of instruction, because… I feel learning Science and Math by using English is more enjoyable than/ the same enjoyment as/ more boring than Bahasa Indonesia, because …

3.4.1.1 Piloting Questionnaires

Following the experts' suggestions, the questionnaires used in this research were piloted to see whether they worked as planned (Wallace, 1998:132; see also Dornyei, 2003: 63-69; Dornyei & Taguchi, 2010: 53; Cohen, Manion & Morrison, 2007: 342). In this concern, the researcher tried them out toward a group of students who did not involve but have the same condition as the participants of this research (Nunan &Bailey, 2010). This was aimed to check the workability of the questionnaires whether the instructions were clear and easy to follow, whether the questions were

clear, whether the participants were able to answer all questions, and whether the participants found any question embarrassing, irrelevant, patronizing, or irritating (Wallace, 1998:133).

There were two stages in piloting the questionnaire as suggested by Dornyei & Taguchi (2010:54-55): initial piloting and final piloting (see also Dornyei, 2003). Initial piloting was used to obtain some external feedback when the initial items pool have prepared. In this regard, the researcher consulted the item pool to some experts, the researcher's supervisors and proofread the item pool to his colleague, a doctoral student of Bahasa Indonesia Department since the questionnaire was constructed in Bahasa Indonesia. Based on their feedback, the items were constructed in such a way that they had a similar length of options, the same number of options, and similar organization (Hughes, 2003: 33). This step is important to ensure the content and face validity of the instruments because validity and reliability of instrument determine that valid and reliable data were obtained (Hatch and Farhady, 1982: 253).

After revising items of the questionnaire based on feedback received from initial piloting, the questionnaire was piloted with 22 students of former pilot international standard senior secondary schools in Pekanbaru who were not chosen as a sample of this research in the final piloting of the instrument in the mid of November 2013. The questionnaire was administered by the researcher himself to the students in order to obtain valuable input about possible problems in the questionnaire (Nunan & Bailey, 2010: 145). During the piloting session, there were some problems found by the students dealing with the terms and performance of questionnaire, however, there were no missing responses for both close-ended and open ended items and high internal consistency of items was found as pointed by Cronbach's α = .854 for close-ended items. Based on feedback received from the students, the researcher revised questionnaire, then re-consulted to the experts (the researcher's supervisors) and proofread the items to his colleagues, the persons who were familiar with the students and a student of a senior secondary school in Pekanbaru. In this regard, the small revision was done, and then questionnaire was piloted to 60 students for the second time by the researcher in the first week of December 2013.

The result of the second final piloting analysis indicated that there was no missing responses for both close-ended and open ended items and the internal

consistency of multi-item scale (Cronbach's α) was .817 for close-ended items (see Dornyei & Taguchi, 2010: 56-57). Therefore, the questionnaire was valid since no missing response was found and it was reliable since Cronbach's α = .817 > .70 was achieved as the minimum standard of the reliable instrument (Fraenkel, Wallen, & Hyun, 2012: 155) to be used in this research.

3.4.1.2 Administering Questionnaire

The revised and piloted questionnaires were distributed to the 656 students of four former pilot international standard senior secondary schools in Pekanbaru beginning from the first week of December 2013 until the second week of January 2014 by using group administration method (Dornyei & Taguchi, 2010: 68). This method was chosen because the respondents were students studying within schools. It is often possible to administer the questionnaires while they were assembled together, for example as part of English lesson (see Dornyei & Taguchi, 2010: 68).

In distributing questionnaires, the researcher was assisted by the English teachers whose students were chosen as research sample. The distribution was begun by explaining the directions to complete the questionnaire. Then, the students were asked to complete the questionnaire in 90 minutes (2 x 45 minutes as time allocation for English lesson). In this case, students completed the questionnaires around 60 minutes. There were 656 questionnaires completed and returned.

3.4.2 Interview

The interview was the second technique used in this research. It has two aims. First, it was used to elicit the data that might not completely address the research questions and accommodate unexpected issues that arise from the diverse experience of the students through questionnaire since it did not provide the participants opportunity to elaborate further because of the restricted form of a questionnaire. This is in line with the nature of case study research, in which interview is one of the most important sources of information and it can be a valuable way in gaining a description of action and events (Yin, 2003). This is particularly relevant when the data needed cannot be gained from the questionnaires so as to allow the researcher to get in-depth information based on questionnaire responses (Kvale, 1996). Second, the interview was employed to validate the data from closed-ended and open ended questionnaires. In this regard,

Alwasilah (2011: 130) states that using various techniques in collecting the data is triangulation technique, which is needed to decrease bias of other techniques and to provide a complete and accurate data. Besides, interviews can help to increase the trustworthiness of the data (Miles and Huberman, 1994) known as "methodological triangulation" (Cohen & Manion, 1985). For that reason, a semi-structured interview was conducted in which specific topics/agendas were totally predetermined (McMillan & Schumacher, 2001: 444), yet at the same time, the researcher can change the sequences and forms of questions in order to follow-up the answers given by the respondents (Kvale, 1996).

Since the purpose of semi-structured interviews in this research is to obtain additional data to complement, refine, and contextualize the results from the survey data, the researcher prepared a sequence of questions in accordance with the topics in the questionnaire. In this regard, a set of the topic of the interview was developed to elicit the data on students' attitudes toward English. The questions of interviews consisted of two focus areas dealing with students' perspectives on the English language, teaching English at school, and the use of English as a medium of instruction for Science and Math. The focus areas of the interviews are presented below:

Table 3. 4 Focus areas of interviews

Category	Focus area
Category 1	Questions to elicit students' attitudes toward the English language, English subject, and English as a medium of instruction
Category 2	Questions to elicit orientations or reasons behind the students' attitudes toward the English language, learning English and English as a medium of instruction

3.4.2.1 Doing interview

There were 44 students comprising 22 male and 22 female chosen purposively to participate in the interviews. Sixteen students were in grade X, 12 students were in grade XI and 16 students were in grade XII. The semi-structured interviews were conducted in the school where the students studied during April 2014 in groups consisted of four students, two male, and two female (see Yin, 2011: 140). Group interviews format was done to minimize time consumed for eliciting information because the interviews were carried out during English lesson. Furthermore, it seemed the method was able to decrease students' anxiety in responding the questions. The students were more relaxed and enjoyable in delivering their responses.

In the interviewing sessions, the researcher provided the same opportunity to the students in responding each question. It is useful to avoid students to feel as subsidiary roles in the interview (Yin, 2011: 140). Moreover, to keep away the data from bias, the researcher always suggested and reminded the students to express their own opinion and feeling, and assured the students that their responses were confidential. Besides, students were allowed to use Bahasa Indonesia to elaborate their explanation as it is their native language. By using students' native language, the students could convey their expression easily and clearly. It also provided the chance for the researcher to notice the linguistic nuances and cultural connotation reflected in their overt expression. Each semi-structured group interview lasted between 30 to 80 minutes, depending on the duration of the students' responses and it was recorded with the permission of the respective students.

3.5 Data Analysis

Data analysis is the process of bringing order, structure, and meaning to the mass of collected data (Marshall & Rossman, 1995). The analysis involves working with data, organizing them, breaking them into manageable units, synthesizing them, searching for patterns, discovering what is important and what is to be learned, and deciding what will tell others (Bogdan & Biklen, 1998). In this study, the data were analyzed separately based on the type of data collecting techniques. It is important to describe information collected by each technique in order to obtain valid and holistic data. The following section discusses the analysis of each data collection technique.

3.5.1 Closed-ended Questionnaires Data Analysis

Data gathered from close-ended questionnaires were analyzed statistically by following several steps. Firstly, the students' responses were scored into scale 0 – 4 (Edward, 1957; see also Oppenheim, 1992) as stated in table 3.5. The scale points showed in table 3.6 were used for scoring positive statements meanwhile, for scoring negative statements, the scale points were placed in the reverse order.

Table 3. 5 Scale of closed ended questionnaire items
(Adapted from Edwards, 1957)

Option	Scale point
Strongly agree	4

Agree	3
Undecided/ neutral	2
Disagree	1
Strongly disagree	0

Secondly, each item score was calculated by using summated rating method and the results were classified into three categories: positive, negative and neutral based on the following criteria:

Table 3. 6 Criteria of Language Attitudes Scale
(Adapted from Edwards, 1957; Oppenheim, 1992)

Category	Criteria
Positive	Total score > Median
Negative	Total score = Median
Neutral	Total score < Median

The table shows that the students' language attitudes are categorized positive if the total score is higher than median of questionnaire total score. Meanwhile, their language attitudes are negative if the total score is lower than the median. Then, neutral is categorized for the total score if it is the same as the median. Finally, the complete computation of students' responses was analyzed statistically (Dornyei, 2010) based on the research questions.

Based on research questions, there were two statistical analyses employed in this research, namely: descriptive statistic and inferential statistic (Dornyei, 2003: 114; Dornyei & Taguchi, 2010:96). Descriptive statistic was used to answer the first research question. In this regard, the researcher used frequency count with percentage and mean-score or univariate analysis (Dawson, 2009: 127) in describing students' language attitudes. Meanwhile, inferential statistic was used to answer the second and third research questions comprising r-Spearman correlation and two types of non-parametric tests used separately: Mann-Whitney U-test and Kruskal Wallis test (Mackey & Gass, 2005; Mcmillan & Schumacher, 2001). These statistical analyses were employed since the data were abnormal distribution. Spearman's rho correlation was used to examine the relationship among three types of language attitudes. The Mann-Whitney U-test was used to compare two independent samples such as gender, educational background, and taking additional English course; meanwhile, Kruskal

Wallis test was used to compare several independent samples such as grade, age, English ability and ethnic with the 0.05 level of significance.

3.5.2 Open-ended Questionnaire and Interviews Data Analysis

The data from open-ended questionnaires and interview were analyzed in the form of coding or thematization (Yin, 2011; Alwasilah, 2011, Cohen, Manion & Morrison, 2007; Marshall & Rosman, 2006; Auerbach and Silverstein, 2003; Miles & Huberman, 1992). The process of data analyses comprised several steps (see table 3.7 as sample analysis).

Firstly, each respondent was assigned a number as his/ her identity to maintain their confidentiality (Burns, 2010; Stake, 2010; Dowson, 2009; Marshall & Rossman, 2006; Dornyei, 2003). Then, responses to open-ended questionnaire were typed; meanwhile, responses of the interview were transcribed under each question to file the raw data (Alwasilah, 2011). Then, the data were read repeatedly to identify information dealing with the research concern called *relevant text* (Aurbach & Silverstain, 2003).

Having selected the relevant text, the researcher noticed the same idea expressed by the students or known as *repeating ideas* (Aurbach & Silverstain, 2003). Repeating ideas found was organized into *themes* and then rearranged into *categories* based on corresponding research questions (Aurbach & Silverstain, 2003). Next, the categories were reformulated into fewer larger and more abstract ideas or categories. This process is known as a *theoretical construct* (Aurbach & Silverstain, 2003). In process of categorization, the main categories were pre-generated in reference to some of the propositions (conceptual framework) termed as *a priori codes*, however, the categories based on themes emerging from the coding process were also generated *inductively* (Miles & Huberman, 1994). Lastly, the final categories were organized into a *theoretical narrative,* which describes the general statement of research concern (Aurbach & Silverstain, 2003).

Table 3. 7 Sample of Coding Process

Code	Relevant text	Theme	Category	Contruct
82	penting karena saya menyukai pelajaran bahasa inggris, …	Liking English subject	enjoyment	**Intrinsic**
88	penting, karena dalam komunikasi, saya merasa bahasa Indonesia tidak mampu mengekspresikan pikiran saya dalam kata-kata yang tepat.	Expressive	linguistics uniqueness	**Aesthetic**
83	penting karena bahasa Inggris adalah bahasa no 1 di	1st language in the	language status	**Language**

	dunia …	world		**status**
15	penting karena membuat kita percaya diri	Self confidence	self-concept	**Utilitarian**
97	penting karena untuk … kepekerjaan sangat diperlukan bahasa ingris, sebagian besar perusahaan menuntut pegawainya untuk bisa berbahasa inggris	Job	employment	
9	penting karena jika saya melanjutkan keperguruan tinggi yang ada diluar negeri …	Continuing study in abroad	further and international study	
19	penting karena merupakan salah satu mapel UN	Pass the exam	instrumental	
78	penting karena perlu banyak menerima informasi internasional yang rata-rata berbahasa Inggris.	Information	Media	

3.6 Concluding Remarks

This chapter has provided the elaboration about the methodology used in the present study. It includes research design, participants, data collection techniques and data analysis that are employed in the present study. The relevance of each method of data collection and analysis discussed in this section in answering the research questions of this study are summarized in the table 3.8. The whole methodological dimensions discussed in this chapter provide the foundation to present results of this study in chapter 4.

Table 3. 8 Methods of Data collection and Analyses by Research Question

Research questions	Method of data collection	Data Analysis
What are the language attitudes and their orientations of students of former pilot International standard senior secondary schools (R-SMA-BI) toward the English language, learning English and English as a medium of instruction?	Close-ended questionnaire Open-ended Questionnaire Interview	Descriptive statistic (Dowson, 2009) Constant comparative approach (see Schloss & Smith, 1999) for data collected from open-ended questionnaire and interview
Are school' types and demographic profiles reflected in their language attitudes?	Close-ended questionnaire	Inferential statistic (Mackey & Gass, 2005; Mcmillan & Schumacher, 2001)
How are the students' attitudes toward the English language, learning English and English as a medium of instruction interconnected in educational contexts?	Close-ended questionnaire Open-ended Questionnaire Interview	Inferential, descriptive statistic and content analysis