#### **CHAPTER IV**

#### **RESEARCH FINDINGS AND DISCUSSION**

#### A. Research Finding

The reading materials were developed through 6 phases; 1) Gathering information and data, 2) Analyzing data, 3) Designing materials, 4) Validating new materials by expert, 5) Revising materials, and 6) Final products (Reading Materials).

#### 1. Gathering Information and Data

The first step in developing appropriate procedure text materials for reading skill for the eleventh grade students of architecture was gathering data. The data in this study was gathered by using some instruments, namely: observation list, questionnaire and interview.

The observation list was administered to gather data, namely: curriculum, syllabus, and students' textbook. Based on the observation, it was found that the existing reading materials especially genre of procedure text is not related to architecture study program. This data was gathered to use as the problem of the research or the preliminary data of the research.

After administering the observation list, the researcher conducted the needs

analysis. It was done by administering the questionnaire to the students and the interview to the English teacher. Based on questionnaire and interview, it was found the target and learning needs of the students which would be presented in the next section.

#### 2. Analyzing Data

#### a. The Needs Analysis

In order to identify the needs of students of architecture study program, the researcher administered the questionnaire to the students and the interview to the English teacher.

#### 1) Questionnaire Analysis

The organization of the questionnaire was divided into two parts. The first part consisted of questions about the target needs of the students. The second part consisted of the questions about the learning needs of the students. The questionnaires were distributed to 25 students of class XI-TG3 majoring Architecture of SMK 2 Negeri Medan. The description of the respondents is represented in the following table.

#### **Table 4.1 Description of Respondents**

Number of	Sex		~ ~ /
Respondent	Male	Female	Age
25	22	3	16 - 18

The descriptions of the target needs and the learning needs are presented

#### below.

# a) Target Needs

Target needs cover a number of important distinctions which include

necessities, lack, wants and goals (Hutchinson and Waters, 1987).

Goals

Goal refers to the general intentions behind the learning. The learning goal(s) of students of SMK Negeri 2 Medan are presented below:

Aspects	Questions/	Items to Answer	Ν	F	Percentage
	Statements				
1	C . N	a. To be successful in	25	8	32%
		English National			
		Examination			
		b. To get equipped	25	12	48%
		with sufficient			
		English ability for			
		future job as an			
		architectural engineer			
	What is your	c. To get equipped	25	7	28%
	main goal of	with sufficient			
Goal	studying	English ability to			
	English?	continue the study to			
		any Department of			
		University			
	-	d. To get equipped	25	_	0 %
n	THE	with sufficient	7		17
016	ana	English ability	51	11	Idia
EIIN	JIVER	in order to join some			0
147 A.	1111111	training/course			
		programs after			
		graduating from high			

 Table 4.2 Students' Goal

school			
 e. Others	25	_	0%

Table 4.2 shows 48% of total respondents stated that their reason of learning English was to get equipped with sufficient English ability for future job as an architectural engineer. The second choice was 32% showing that the students' goal was to get successful in English National Examination. In conclusion, most students want to learn English to pass the English National Examination successfully first and foremost to let them have sufficient English ability for future job.

#### Necessities

Hutchinson and Waters (1987) define necessities as the type of need determined by the demands of the target situation that the learner has to know in order to function effectively in the target situation. The Necessities of architectural students of SMK N 2 Medan are presented below:

Aspects	Questions/ Statements	Items to Answer	N	F	Percentage
15	When I am	a. a way to	25	7	28%
$\square$	working as an	communicate with	R		Aim
yna	architectural	fellow engineers or	16	u	uuuy
Necessities	engineer, I will	clients if they are			$\sim$
	use English	foreigner			
	for	b. modalities for	25	17	68%

Table 4.3 Students' Necessities in Learning English



Table 4.3 above presents what the students want to do with English as an architectural engineer. From Table 4.2, there were 68% of students who believed that they would need English to comprehend the instructions in their future working places. There were also 28% who wanted to use English to communicate with fellow engineers or clients should they encounter it.

Aspects	Questions/ Statements	Items to Answer	N	F	Percentage
	I think, the use of	a. Very important	25	18	72 %
	texts related to	b. Important	25	5	20 %
NT	architecture in	c. Quite	25	2	2 %
Necessities	teaching and	important	15	٦.	100
10/12	learning reading	d. Not important	25	Ű	0 %
UN	skills is	TY			2

Table 4.4 Students' Necessities in Learning English

The second item was to know the students' opinion about having English specifically for their major From table 4.4 above,72% of students thought that

having English related to their major is very important and another 20% of them thought it is important.

Aspects	Questions/ Statements	Items to Answer	Ν	F	Percentage
10	Skills and	a. Listening	25	5	20%
	knowledge that I	b. Speaking	25	12	48%
Necessities	will occasionally	c. Reading	25	14	56%
	use in the working	d. Writing	25	2	8%
	field is/ are	e. Grammar	25	4	16%
"Ten	1	f. Vocabulary	25	1	4%
0		g. Other	25	-	0%

Table 4.5 Students' Necessities in Learning English

The fourth item was to know what skill/knowledge that will often be used according to the students' opinion. From Table 56% of them agreed that reading is the skill that will be used often as architectural engineer and on the second place, 48% of them thought that speaking will also be used often.

• Lacks

The gap between target proficiency and existing proficiency of the students can be referred as students' lack (Hutchinson and Waters, 1986). The following

table shows the lack of the students.

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Aspects	Questions/	Items to Answer	Ν	F	Percentage
	Statements				
78	My current English proficiency is at	a. Beginner: being able to communicate in daily life context	25	13	52%
Lacks	the level of	b. Intermediate: being able to communicate in any kind of discourse	25	11	44%
		c. Advanced: being able to communicate in English in any discourse fluently and accurately	25	1 83	4%

#### Table 4.6 Students' English Proficiency Level

The first question about students' lack is presented in Table 4.6 above.

That question was to know the current level of students' English proficiency level.

From the table, the proficiency level of the most students of grade XI of

architecture study program at SMK Negeri 2 Medan was beginner. It is shown in

table that 52% students were at the beginner proficiency level.

Aspects	Questions/ Statements	Items to Answer	N	F	Percentage
	The number of	a. <100 words	25	24	96%
	vocabulary on	b. 100 – 500 words	25	1	4%
Lacks	architecture that	c. 500 – 1000 words	25	0	0%
	I have already	d. >1000 words	25	0	0%
	knows is/are				

#### Table 4.7 Students' English Proficiency Level

The second question about students' lack is how many words that the students know and understand related to the architectural field. From the table, many of the students only know/understand not more than 100 words related to the architecture. It just as stated in the table that 96% students had known <100 words related to the architecture.

# Table 4.8 Students' English Proficiency Level

Aspects	Questions/ Statements	Items to Answer	N	F	Percentage
/>	0	a. Understanding	25	11	44%
10	In learning	vocabulary in a text	Ø		N.
Lacks	reading skills, I	b. Finding the main	25	6	24%
Lacks	have some	idea in a paragraph			0
	difficulties in	c. Comprehending the	25	6	24%
		content of whole text			

# d. Understanding2528%technical terms

Table 4.8 demonstrates the results of the third question about students' lacks. The purpose of this question was to know the students weaknesses and difficulties in learning English. From the table, there were 44% of the students said that they found difficulties in understanding vocabulary in a text. The alternative was 24% students who found difficulties in finding the main idea in a paragraph and comprehending the content of whole text.

#### • Wants

Wants refer to the students' view about their needs (Hutchinson and Waters, 1987). The results of students' wants are presented below.

Aspects	Questions/ Statements	Items to Answer	N	F	Percentage
	~	a. Master vocabulary, 2	25	17	68%
		either the general or			
~	I want to learn	the technical terms in			
n	English especially in	the field of	75	۰.	17.
Wants	reading that	architecture	5U	Ű	an
U	should make	b. Master grammar 2	25	3	12%
	me be able to	well			
		c. Understand and use 2	25	5	20%
		any kind of words,			

#### Table 4.9 Students' Wants in Reading Skills

sentences, and			
expressions in Eng	glish		
d. Find specific	25	0	0%
information in a te	ext		
accurately			

From Table 4.9 above shows 68% of students wanted to be able to master vocabulary, either the general or the technical terms in architecture. The second tendency was 20% students who wanted to be able to understand and use any kind of words, sentences, and expressions in English.

#### b) Students' Learning Needs

Hutchinson and Waters (1987: 60) define learning needs as knowledge and abilities that the students will require in order to be able to perform particular competence in the target situation. The tables below presents the learning needs of architectural students based on the questionnaire.

#### • Input

'Input' refers to the types of data that will be used by the learners in learning English. The data below provide the description about desired inputs of the students at SMK Negeri 2 Medan.

In	Table 4	1.10 Input of Reading Ma	terials		Nr.
Aspects	Questions/ Statements	Items to Answer	N	F	Percentage
	The topic is	a. architecture	25	18	72%
Input	about	b. daily activities	25	7	28%
		c. schools	25	-	0

Table 4.10 above shows the results of desired topic related to the input in learning reading. The 72% of the students preferred the topic which is related to architecture. As the second alternative, there were also 28% of the students who wanted the topic for reading which is related to daily activities.

Aspects	Questions/ Statements	Items to Answer	N	F	Percentage
-W	When I learn	a.<250 words	25	11	44%
	reading, I	b. 251- 350 words	25	10	40%
Input	suppose to have	c. 351-450 words	25	0	0%
	the text with	d. >450 words	25	4	16%
	the length of				

**Table 4.11 Input of Reading Materials** 

From Table 4.11 above, there were 44% of total respondents who believed that the suitable reading input was texts consisting less than 250 words. The second alternative for length of reading input was 251 - 350 words. It was chosen by 40% of total respondents.

#### **Table 4.12 Input of Reading Materials**

Aspects	Questions/ Statements	Items to Answer	N	F	Percentage
Um	I think, the	a. Very helpful	25	14	56%
EUN	availability of	b. Helpful	25	11	44%
Input	relevant pictures	c. Quite helpful	25	-	0%
	in the materials is	d. Not helpful	25	-	0%
	•••				

From Table 4.12 above, most of the students (56%) believed that the availability of relevant pictures in the materials will be very helpful to assist them in learning English.

#### • Procedures

Procedure specifies what learners will actually do with the input to achieve particular goals on each task (Nunan, 2004). The results of the needs analysis questionnaire in term of learning procedures are below.

Aspects	Questions/ Statements	Items to Answer	N	F	Percentage
"The	1	a. Reading aloud with	25	9	36%
		the correct			
		pronunciation and			
		intonation			
	UI	b. Reading texts and	25	7	28%
	The type of	answering the			
Procedures	activity for	questions			
	learning	c. Reading and	25	6	24%
n	reading is	sequencing sentences	X	-	~
016	anne	into a full paragraph	81	11	hin
UN	IIVER	d. Choosing the	25	12	48%
	1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.	statements whether			
		they are True/False			

#### **Table 4.13 Reading Types of Activity**

Table 4.13 shows the desired procedures for learning reading. From table, there were 48% of the students who wanted the activities for learning reading in the form of choosing the statements whether they are true/false.. There were also 36% of the students who want reading aloud with the correct pronunciation and intonation as activities for learning reading.

Aspects	Questions/	Items to Answer	N	F	Percentage
	Statements				
>		a. Remembering the	25	9	36%
		formul <mark>a of</mark> grammar/			
		structure			
	Type of	b. Doing tasks about	25	6	24%
Procedures	activity for	grammar			
	learning	c. Identifying sentence	25	8	32%
	grammar is	structure			
		d. Correcting the	25	2	8%
		incorrect sentence			
~	3	structures			

Table 4.14 Types of Activity Related to Grammar

of the students who wanted learning grammar by identifying sentence structure. RO11

Aspects	Questions/ Statements	Items to Answer	N	F	Percentage
		a. Matching words	25	10	40%
		and its contexts			
		b. Translating words	25	15	60%
	Type of	and terms			
	activity for		-	_	27
Procedures	learning	c. Completing	25	7	28%
rrocedures	learning	sentences or			
	vocabulary				
	is	parag <mark>raph</mark> by using			
		given words			
		d. Identifying part of	25	1	4%
		speech in the texts			

 Table 4.15 Types of Activity Related to Vocabulary

Table 4.15 shows the results of desired activities for learning vocabulary. There were 60% of the students who chose translating words and terms for learning vocabulary. As the second alternative, there were also 40% of the students who wanted learning vocabulary by matching words and its contexts.

#### • Setting

Setting refers to the classroom arrangement in completing the task, for example; individual work, pair work or group work. The preferred classroom settings of architectural students are presented below.

Aspects	Questions/ Statements	Items to Answer	N	F	Percentage
- 0	When I learn	a. Individually	25	10	40%
	reading, the tasks	b. In pairs	25	8	32%
Settings	given by the	c. In a small group	25	4	16%
	teachers are better	d. In a big group	25	2	8%
	to do				

**Table 4.16 Settings** 

Table 4.16 above shows the setting desired by the students to carry out the tasks. From the table, there were 40% of students who wanted to do the tasks individually. There were, 32% of students who wanted pair work activity.

#### **Table 4.17 Number of Tasks**

Aspects	Questions/ Statements	Items to Answer	N	F	Percentage
Settings	I think,	a.1 – 5 tasks	25	19	76%
	numbers of	b. 5 – 8 tasks	25	5	20%
	effective tasks	c. 8 – 12 tasks	25	0	0%
>	in a unit are	d. more than 12 tasks	25	1	4%

Table 4.17 above shows that 76% of students wanted 1-5 tasks as the

### number of effective tasks in a unit.

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Aspects	Questions/ Statements	Items to Answer	N	F	Percentage
	When the teacher	a. Classroom	25	12	48%
	When the teacher	b. Outside	25	5	20%
	gives tasks, I	0. Outside	40	5	2070
Settings	would prefer to	classroom (library,			
	would pielei to	park, etc)			
	do them in the		1000	_	8 I.
		c. House	25	7	28%

 Table 4.18 Settings

From Table 4.18 above, 48% of students prefer to do the tasks in the classroom. There were also 28% of students prefer to do the tasks in the house.

#### c) Teacher's Role

Teacher's role refers to the part that teachers are expected to play in carrying out learning tasks as well as the social and interpersonal relationships between the participants (Nunan, 2004). The following table presents the results of the questionnaire about teacher's role desired by the students of architecture study program at SMK N 2 Medan.

#### Table 4.19 Teachers' Role



c. Gives the students a chance to discuss with	25	3	12%
friends			
d. Gives example or	25	15	60%
explanation first about			
how to do the tasks			
then ask students to do			
that			

Table 4.19 above shows the teacher's role desired by the architectural students at SMK Negeri 2 Medan. From the table, there were two choices that have same votes from the students. There were 60% of the students wanted the teacher to leads the students in discussing a particular text and gives example or explanation first about how to do the tasks then ask students to do that. In the other words, the students expected the teacher to be the mentor in the classroom.

#### d) Students' Role

Learner's role refers to the part that learners are expected to play in carrying out learning tasks as well as the social and interpersonal relationships between the participants (Nunan, 2004). The following table shows the preferred role of the students in this study.

Table 4	.20 Stud	lents'	Roles
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Aspects	Questions/ Statements	Items to Answer	Ν	F	Percentage
Students'	When I learn	a. Actively participate	25	15	60%
role	reading, it is	in a classroom			

better if the	discussion and share			
students	their opinion with all			
	classmate and the			
	teacher			
	b. Listen to the	25	9	36%
	teacher's explanation			
	then write it on the			
	note book.			
	c. Do t <mark>he</mark> tasks	25	1	4%
	independently			

Table 4.20 shows that there were 60% of students who wanted to do the task by discussion. It means that the students wanted to be problem solver in carrying out a task. The second tendency for student's role was listening to the teacher explanation which was chose by 36% of the students.

#### 2) Interview Analysis

The researcher also administered the interview to the English teacher of architecture students. It was conducted to support the results of the questionnaire analysis and also to get the accurate data. The teacher's responses to the questions given by the researcher are presented in the following table.

#### Table 4.21 Interview Analysis

Questions	Answers
What is your opinion about	Most of them are not interested in
students of SMK 2 Medan in	learning English because they have less
learning English?	vocabulary.
	What is your opinion about students of SMK 2 Medan in

2.	What kind of English textbook	They used English textbook which is
	that used by the architecture	published by the Ministry of Education
	students in learning English?	"Buku Bahasa Inggris SMA/ MA/ SMK/
	SIST	MAK, Kurikulum 2013".
3.	Do the reading materials in the	No
1	textbook are related to the	
1	architecture students?	~ 3 Y
4.	Do you think that reading	I think so. Some years ago, this school
1.3	materials that related with their	provided English textbook which was
	study program in architecture	related to their major. They seemed more
1.7	can make them interested in	interested in learning English.
1	learning?	1
5.	Can you compare the ability of	Yes, I think the previous students were
	English between the previous	smarter when they used English textbook
	students and the current	which was related to their major. It can
	students?	be looked from their grade. Their score
		were better than the current students.
6.	So, is it necessary to develop	Yes, I think so
1	reading materials based on	an or
P	their need?	- (Duildin
7.	Are the procedure texts related	Yes, it is. The procedure text which is
	to architecture is needed by	related to architecture is needed. So that,
	your students to support their	the students can comprehend the text
	learning or their job in the	easier and it can support their job in the
	<u> </u>	

future?	future as an engineer.

By analyzing the data taken from the existing materials and needs analysis including the questionnaire and interview, the researcher identified that the existing procedure text materials were not appropriate to the students and the existing materials were not needed to the students because they are not related to their major as architecture students. It caused the students become less motivation to read, moreover it was hard for them to comprehend the materials because they didn't have background knowledge about the texts given. These things could lead to the unfulfilled basic competence expected by the curriculum that the students should be able to grasp the meaning of procedure text. Thus, the results of the needs analysis were used by the researcher as guidance in developing appropriate procedure text materials for grade XI students of architecture study program.

#### **3. Designing Materials**

The reading material was developed based on the data result from the questionnaires in needs analysis, interview, syllabus, and curriculum 2013.

The questionnaire and interview were used to know the learning needs. The learning needs of the learners were the input, activity, setting, learners' role, and teacher's role. In the reading input, the topic of reading text that students want was reading text that related with architecture. The length of the text for input was

less than <250 words. In enriching their vocabulary, they wanted to find new words from the text then find the meaning in the dictionary. In learning grammar they wanted to identify the sentence structure then fix it. In doing activities, students do the activities individually then have discussing to solve the problem or do the task. While the teacher leads the students in discussing gives examples or explanations about the topic which is learnt and give the assignment to the students.

The material was developed by considering students background knowledge about architecture that they have learnt. So, they can use their background knowledge/experience to comprehend the text. It was begun from finding out some activities and topics about their study program. By looking their syllabus, students learn about architecture, but the English textbook doesn't provide materials which are related to their syllabus. This table would show materials that students have learnt about architecture as their background knowledge.

 Table 4.22 Basic competence of architecture related to the development

reading material.

#### **Subject: Technique of Drawing**

3.1 Implementing the technique and principle of the using of

Grade 1 manual technique drawing tool.

3.5 Implementing the sketch an object or thing.

4.1 Presenting the technique and principle of the using of

manual technique drawing tool

4.5 Designing sketch an object or thing.

Subject: Interior and exterior Design

Grade 2 3.1 Analyzing the variety of interior design based on concept

and interior style

3.4 Associating the composition, harmony, aesthetics, and function in making decoration and ornament of room in a house, office, or public room

4.1 Comprehending the interior concept and style with the condition and situation of environment

4.4 presenting the interior drawing of decoration and ornament

with the function of room in a house, office, or public room.

For example, in the first grade they have learnt designing sketch an object or thing, then the writer took that to develop English reading material (procedure text) by selecting procedure texts related to architecture study program from some sources, such as internet and book. The selected of procedure texts then were adapted (modified) based on principles of materials development (Reinders and Lewis, 2006: 275) in order to present well organized suitable procedure text materials. The texts were adapted by adding some items to the texts and simplifying them (there were some sentences in the texts which are deleted or subtracted).

#### a. Syllabus

The syllabus was used as the guideline to develop the learning materials. The syllabus consists of core competence and basic competence. The syllabus was used as a source to develop the English reading materials for students of Grade XI of Architecture Study Program.

The core competence and basic competence of grade XI Vocational School

in the second semester are presented below.

Table 4.23 The Core and Basic Competence of Grade XI Vocational School.

Core Competency				<b>Basic Competency</b>		
1.	Comprehend	and	implement	the	1.1 Grateful for the opportunity to learn	

religion that is believed.

English language of as a communication embodied in international enthusiasm for learning

- **2.** Comprehend and honest attitude, responsible, care (mutual assistance, cooperate, tolerant, save), good manners, responsive, proactive and 2.2 Demonstrate show the attitude as part of solution some problems in effective interaction with social area and nature also in placing our self as nation reflection world of intercourse.
- complement 2.1 Demonstrate courteous behavior discipline, and care in performing communication interpersonal with teachers and friends.
  - honest behavior, discipline, confident, and implementing responsible in communication transactional with teachers and friends.
  - 2.3 Demonstrate responsible behavior, caring, cooperation, and love of peace, to implement communication functional.
- 3. Understand, apply, and analyze 3.6 Analyze text structure, linguistic elements, and social function from procedural text in manual and tips,

accordance with context of its use.

knowledge, conceptual, factual procedural, and meta-cognitive according to the feeling of knowing about knowledge, technology, art, culture and humanities, with human

perception, nation, state, civilization

that is connected to phenomenon factor, and also apply procedural to specific knowledge field that is appropriate to the talent and interest in solving problem.

4. Manage, think, and prepare in 4.9 Understand concrete domain and abstract procedural text domain that is connected to the in manual and t development of knowledge that is learnt in school as personal, do as effective and creative, and also is able to use method that is appropriate with scientific theory.

.9 Understand the meaning of procedural text in oral and written, in manual and tips.

#### b. Curriculum 2013

The design of the English reading materials were showed in the diagram below and the elaboration of the unit was in the following paragraphs.





#### Figure 4.1. The Unit Design

The Introduction stage covered warm-up activity which aimed to build the

background knowledge of the students about what they will learn in the unit. The next stage was Lesson Proper.

The lesson proper provided the scientific steps which are required by Curriculum 2013; Observing, questioning, experimenting, associating and communicating. The Lesson Proper consists of "Let's Observe!", "Let's Ask!", "Let's Find Out!", "Let's Create!" And "Let's Show!". In Let's Observe, will build the learners' scheme of the material that will be learned. Students observe some pictures and read the texts to list items they want to know in order to understand and produce texts. In Let's Ask, the materials consists of learning activity which aims to give the students chance to make questions related to procedure text. In Let's Find Out, provide the reading activities such as students sort out, classify, and identify relationships among the data to find out patterns to answer the formulated questions. In Let's Create, students create texts to express thoughts/ideas. In let's Show, the students are given the chance to show their work.

Vocabulary Building covers words which are related to the topic and their Indonesian meaning. The reinforcement consisted of Homework, Reflection, and Review. In homework gives the students chances to explore what they want to know and/or what they want to learn outside the class. In the Reflection part, students are given a chance to write their attainment of learning English from the materials. In Review, there are some activities in this part which is intended to check the students' understanding about what they have learned.

#### 4. Validating by Expert

After the first draft of materials was developed, the materials were evaluated

by the experts, they were lecturer and teacher. The evaluation was conducted by providing a questionnaire to the experts. The questionnaire was adapted from the Standard of Course Book Assessment for Vocational High School by BSNP 2011 and consists of four aspects; i.e. content appropriateness, language appropriateness, presentation appropriateness, and lay-out appropriateness.

#### a. Lecturer

The first materials expert who evaluated the materials is credible lecturer from English Education Department of State University of Medan. The expert is Prof. Dr. Hj. Sumarsih, M.Pd. She is a permanent lecturer of State University of Medan. There were criteria to consider whether the material was valid.

No	Criteria	The Number	Maximum	Score
	Criteria	of Criteria	Score	
1.	Content appropriateness	5	25	23
2.	Language appropriateness	5	25	22
3.	Presentation appropriateness	5	25	24
4.	Layout appropriateness	5	25	24
	Total	20	100	93

## Table 4.24 English Lecturer's Validation Score

The Table 4.24 shows that average value of the score was 4.65. It was categorized as appropriate. Then the percentage showed that reading materials were 93% valid based on English lecturer validation.

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#### b. Teacher

The second material expert is SA Sinaga, S.Pd, a credible English teacher of

SMK N 2 Medan. There were criteria to consider whether the material valid.

No	Criteria	The Number	Maximum Score 25 25	<b>Score</b> 23 21
	Criteria	of Criteria		
1.	content appropriateness	5		
2.	language appropriateness	5		
3.	presentation appropriateness	5	25	23
4.	layout appropriateness	5	25	24
4	Total	20	100	91
2	Average = $\frac{91}{20}$ = 4.55 or per	$rcentage = \frac{91}{100}$	x 100% = 91%	5

#### Table 4.25 English Teacher's Validation Score

The average of score validation was 4.55. It was categorized as relevant or appropriate. Then the percentage shows that the reading materials were 91% valid based on English teacher's validation.

#### **5. Revising the Materials**

The developed English reading materials had been evaluated by the experts.

There were some revisions as suggested by the experts:

- a. The English lecturer suggestions are: improve the cognitive level of the materials and interactions between teacher and students.
- b. English teacher's suggestions are: describe the purpose of study and fix some grammars of the task.

6. Final Product

After revising the materials by the experts, it showed a very good result or relevant reading materials. It can be seen in the result of table questionnaire's validation. Finally the final products or developed materials were valid to use as learning materials for the eleventh grade students of architecture at SMK Negeri 2 Medan (Appendix E).

#### **B.** Discussion

The aim of this research was to develop English reading materials especially in procedure text for the second semester of grade XI students of Architecture at SMK Negeri 2 Medan by knowing the characteristics of the learning need and target. This research was conducted at SMK Negeri 2 Medan. There were 25 students who participated in this research. The students were asked about their background knowledge, target needs and learning needs about reading material by using questionnaire and interview. Based on the research findings, the results of needs analysis was students need to have appropriate English reading materials and they needed to improve English reading skill to support their future job.

In developing reading materials, there were several steps to develop them, those are: 1) Gathering information and data by using some instruments, namely: observation list, questionnaire and interview., 2) In Analyzing data, It was found that 48% of total respondents stated that their reason of learning English was to get equipped with sufficient English ability for future job as an architectural

engineer. The second choice was 32% showing that the students' goal was to get successful in English National Examination. 72% of students thought that having English related to their major is very important and another 20% of them thought it is important. 72% of the students preferred the topic which is related to architecture. As the second alternative, there were also 28% of the students who wanted the topic for reading which is related to daily activities. There were 44% of total respondents who believed that the suitable reading input was texts consisting less than 250 words. The second alternative for length of reading input was 251 – 350 words. It was chosen by 40% of total respondents. Most of the students (56%) believed that the availability of relevant pictures in the materials will be very helpful to assist them in learning English. There were also 48% of the students who wanted the activities for learning reading in the form of choosing the statements whether they are true/false for learning reading, 3) Designing materials based on questionnaire, interview, syllabus and curriculum 2013, and the writer developed the materials by selecting procedure texts related to architecture study program from some sources, such as internet and book.

The unit of design consisted of introduction, lesson proper, vocabulary building, reinforcement. The Introduction stage covered warm-up activity which aimed to build the background knowledge of the students. The lesson proper provided the scientific steps which are required by Curriculum 2013; Observing, questioning, experimenting, associating and communicating. Vocabulary Building covers words which are related to the topic and their Indonesian meaning. The reinforcement consisted of Homework, Reflection, and Review. In homework gives the students chances to explore what they want to know and/or what they

want to learn outside the class. In the Reflection part, students are given a chance to write their attainment of learning English from the materials. In Review, there are some activities in this part which is intended to check the students' understanding about what they have learned, 4) Validating new materials by expert, the experts' judgment score were 4.65 and 4.55 which were very good. The reading materials were good in all of the aspects, content, language, presentation and layout, 5) Revising materials by the validators, there were some revisions as suggested by the validators. First, Prof. Dr. Hj. Sumarsih, M.Pd suggested to improve the cognitive level of the materials and interactions between teacher and student. Second, S.A. Sinaga suggested to describe the purpose of study and fix some grammars of the task, and 6) Final products, after revising the materials by the experts, it showed a very good result or relevant reading materials. It can be seen in the result of table questionnaire's validation. Finally the final products or developed materials were valid to use as learning materials for the eleventh grade students of architecture at SMK Negeri 2 Medan.