

## **CHAPTER II**

### **LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK**

The objective of this research is to develop Project-Based Learning materials for Reading and Writing class for Grade X students of SMA N 4 Purworejo. This part provides related theories supporting the study. The previous relevant studies are also presented as the references used by the researcher to look into some significant findings that are fruitful for this study. The researcher also presents the conceptual framework of the study to see how this research was conceptually constructed.

#### **A. Literature Review**

##### **1 Reading**

###### **a. The Nature of Reading**

As any other language skills, reading is very essential to be mastered in order for language learning to be successful since it provides more inputs in terms of knowledge and information for learners. In this case, reading becomes one of receptive skills in addition to listening skill. Reading allows learners' mind to receive any information as sources of their knowledge in the process of reading. According to Hedgecock (2009), reading is an activity of extracting visual information or messages from any encrypted system and comprehending the meaning. Fischer (2003) defines reading as the activity on making sense of written or printed symbols (Mitchell in Fischer, 2003). Harmer (2001: 199) argues that as

a receptive skill, reading provides a way of extracting meaning from visual things. In this way, reading assists learners to obtain something from what they read either in the form of knowledge related to the language itself or information presented through the language.

Dealing with reading, the nature of readers is that they attempt to obtain a message or meaning from a text (Nuttal, 2000). However, for the readers, reading is not as simply as merely accepting the meaning of the text. She adds that the readers are active in interpreting the meaning since there is “an interactive process” in which the readers predict the meaning and the writer’s intended ideas or meaning (2000: 11). Therefore, in this situation, the readers will attempt to construct the intended meaning of the writer by using their prediction in terms of using their background knowledge. Furthermore, Ruddell (2005: 31) considers reading as a transaction. She describes that

Reading is the act of constructing meaning while transacting with text. The reader makes meaning through the combination of prior knowledge and previous experience; information available in text; the stance he or she takes in relationship to the text; and immediate, remembered, or anticipated social interaction and communication.

In regards to these definitions of reading, it can be inferred that reading is a quite a complex process in obtaining a messages from print. It is complex since it requires reader’s prior knowledge, either world knowledge or text knowledge to interpret intended meaning in the text. If the readers have prior knowledge about the text, the readers will feel at ease in reading and understanding the text.

In relation to the nature of reading, reading comprehension is crucial in learning. Rather than regarding reading as reading aloud which is generally

related to teaching reading for children as the early stage, although its purpose will come to comprehension at the end, it is better to deal with reading comprehension when teaching the upper age such as people who include adolescent since the nature of reading is to comprehend meaning from a written text. Lems, Miller, and Soro (2010: 170) suggest that reading comprehension can be defined as the ability to construct meaning from written text. They further explain that it is a dynamic competency since it depends on what the purpose of reading is and what text is read. Their idea is in line with what Blachowicz and Ogle (2008) who argue that reading comprehension is more widely considered as a constructive process, something motivated and purposeful, something skillful and strategic, and self-monitored and self-regulated action. Therefore, a reading comprehension process is complex in obtaining a meaning of a text.

Furthermore, some experts argue that reading comprehension constitutes “the process of constructing meaning by coordinating a number of complex processes that include word reading, word and world knowledge, and fluency” (Anderson, Hiebert, Scott, & Wilkinson, 1985; Jenkins, Larson, & Fleischer, 1983; O’Shea, Sindelar, & O’Shea, 1987, in Klingner, Vaughn and Boardman, 2007: 2). Thus, reading can be considered not only as sounding verbal symbols process and getting fluent on that but also as the process of relating background knowledge of readers to what they read to achieve meaning interpretation. Moreover, Dorn and Soffos (2005: 6) regard comprehension as a “mind’s ability” where if someone does not has any background knowledge related to the text, he or she will have difficulty in extracting the meaning of the text.

From these explanations, it can be inferred that what readers actually do when they read is aimed at reading comprehension. Reading comprehension is making sense of a text in which there is a process of extracting meaning or information from text by relating it to what have already been known in readers' mind. The students need to master reading comprehension in order to success in learning process. If they are skillful in reading comprehension, they consequently will obtain more inputs in the learning process.

#### **b. Reading Objectives**

In doing a conscious activity, people definitely have particular reasons and purposes. It is the same as doing reading. Linse and Nunan (2005:79) mention two main purposes of reading which are for pleasure and for information which Williams in McDonough, Shaw, and Masuhara (2013:111) divides into general and specific information. From the former, people usually do reading to get enjoyment or entertainment such as reading a novel or a short story. The latter allows people to get some information about what they expect to know. Klingner, Vaughn, and Boardman (2007: 2) also argue that ultimately the goals of reading can be meaning, learning and pleasure. Sometimes people read a text to obtain information, learn language through the text, or read it for the sake of doing their hobby. It can be inferred that although readers intend to either search for some information, only read for pleasure, or something else, the ultimate purpose is to obtain something from the text they are reading.

### **c. Types of Reading**

According to Harmer (2005) and Nation (2009), Reading is divided into intensive and extensive reading. Intensive reading deals with reading which is usually done in the classroom where teachers are involved in choosing the text and reading activity. Meanwhile, extensive reading deals with independent reading done either inside or outside the classroom where students can read any text they desire for their development in reading. However, both of them still require comprehension. Nation (2009) states that intensive reading refers to “language-focused learning”, while the extensive one is related to “meaning-focused input.” Thus, from the former, comprehension is achieved through learning language by exploiting the text used, and from the latter, extracting the meaning of the text without paying much attention to the language items is the way of comprehension.

In intensive reading, Nation (2009: 26) provides some ways into practice that should be considered in benefitting texts to teach reading since teachers should not focus on items that are only available in a particular text. The teacher focuses on items which occur often in many different texts. In addition, the teacher uses some strategies can be applied to various texts. Moreover, the teacher can discuss or neglect uncommon items. The teacher needs to pay attention to same items and strategies in several kinds of texts.

As a consequence, intensive reading allows teachers to prepare good reading instruction so that students can get benefit from it in terms of having knowledge and skill to do with extensive reading. It is stated earlier that extensive reading helps students improve their language development (Harmer: 283) since students are willing to read any texts of their own interest. Extensive reading is also often related to reading for pleasure or for enjoyment. It is in line with Nation's (2009: 49) statement that reading can become "a source of learning and a source of enjoyment" which related to extensive reading. Therefore, guiding students to both types of reading is essential for their success of learning.

#### **d. Brown's Micro- and Macro-Skills for Reading**

The students need to master some skills in order to be able to read efficiently in the reading process. In teaching reading, these skills reflect what performances should be done by students to be successful in reading. Brown (2004: 187-188) provides a list of fourteen skills, which are classified into micro and macro skills, for reading comprehension are taken with other resources. According to Brown (2004: 187-188), the micro skills are

- 1) Discriminate among the distinctive graphemes and orthographic patterns of English.
- 2) Retain chunks of language of different lengths in short-term memory.
- 3) Process writing at an efficient rate of speed to suit the purpose.

- 4) Recognize a core of words, and interpret word order patterns and their significance.
- 5) Recognize grammatical word classes (nouns, verbs, etc.), systems (e.g., tense, agreement, and pluralization), patterns, rules, and elliptical forms.
- 6) Recognize that a particular meaning may be expressed in different grammatical forms.
- 7) Recognize cohesive devices in written discourse and their role in signaling the relationship between and among clauses.

On the other hand, Brown (2004: 187-188) also provides the list of the macro skills which are detailed below.

1. Recognize the rhetorical forms of written discourse and their significance for interpretation.
2. Recognize the communicative functions of written texts, according to form and purpose.
3. Infer context that is not explicit by using background knowledge.
4. Infer links and connections between events, deduce causes and effects, and detect such relations as main idea, supporting idea, new information, given information, generalization, and exemplification.
5. Distinguish between literal and implied meanings.
6. Detect culturally specific references and interpret them in a context of the appropriate cultural schemata.

7. Develop and use a battery of reading strategies, such as scanning and skimming, detecting discourse markers, guessing the meaning of words from context, and activating schemata for the interpretation of texts.

From the list above, it can be inferred that the skills cover the things to get the mastery of reading. Because of the importance of these skills, teachers should apply them into practice in teaching reading. Teachers may depend on the skills as the objectives of teaching reading. They can select the appropriate skills to be mastered each time they teach reading. Certainly, teachers should consider students' background knowledge and the available context.

#### **e. Reading Strategies**

According to Oxford (1990: 1), learning strategies can be defined as actions that are taken by learners to improve their learning. O'Malley and Chamot (1990: 1) also state that learning strategies as "special thoughts and behaviors that individuals use to help them comprehend, learn, or retain new information." Therefore, language learning strategies can be illustrated as special steps or techniques that language learners apply to improve their understanding and retaining of information in the language learning process. When learners apply appropriate strategies, it may result in better proficiency.

The main problem faced by some English teachers is to improve the students reading ability and maintain their interest in reading. Some ESL / EFL students have difficulty reading English because they do not know the techniques of

reading effectively and understand a text. Therefore, this affects students' attitudes towards reading English. (Mede, 2010). Therefore, in learning, particularly reading, learners have to activate their strategies so that they can understand what they are reading.

Research shows that reading strategies on student understanding can improve reading comprehension and can also know good understanding from bad ones (Kletzien, 1993; Dole, Brown, & Trathen, 1996). In reading strategies can know how readers understand a task, how readers understand what they read, and know what they have to do when they do not understand. In other words, reading strategies are any steps, actions, or activities can ease learners to be successful in their reading, understanding and interpreting the text.

Many works focus on understanding reading strategies, which are one of the learning strategies, by looking at the students' reports they do when reading (Olshavsky, 1997; Block, 1986; Kletzien, 1991; Saricoban, 2002) imply that various reading strategies will help students understand the text more easily. (Palincsar & Brown, 1984; Kern, 1989; Dole, Brown & Trathen, 1996; Brown, Pressley, Van Meter & Schuder, 1996). It indicates that the role of teacher is needed to promote reading strategies for learners.

In essence, the reading strategy can be with an action by the reader to improve reading comprehension. This strategy includes skimming, contextual guessing, reading for meaning, utilizing background knowledge, recognizing text structures, and so on. (Cohen, 1998; Hsu, 2006; in Lee 2012). As stated previously, reading strategies can be in the forms of steps, and activities or actions

which can improve learners' ability in reading, as well as involve cognitive and metacognitive processes.

#### **f. Learning Reading**

Learning to read is a process for a lifetime. For an initial interaction with family and society, people will develop the knowledge they use to read. Early in school, children will learn to understand and use spoken and learned languages about deunia through interaction with others.

Written languages are also learned by children because experienced readers will demonstrate meaningful reading and writing. The initial demonstration is reading about the environment, using shopping lists, writing and reading a note, and reading and discussing stories and letters from friends. They also learn to read and write family names. They also learn kasakata, various types of texts and learn basic concepts of print such as text messages in books.

Reading strongly supports the development of writing and vice versa. For example, by reading, the reader will feel the power of the author and use it when they write their work. Writing will also develop language structure, organizing text, and spelling patterns for reading skills. Learning to read one language can speed up reading other languages. When readers learn to read texts that they understand, they will provide an intuitive understanding of what reading is and how to read texts in other languages. The experiences of children in learning to

read vary, including culture, scientific background, oral and written language, experience with printing and access. However, readers use life experiences, their knowledge of oral and written languages to make print sara and help get the benefits of instructions that can help them. Their reading ability continues to evolve in understanding variations in texts as they learn more about spoken and written languages, obtain more knowledge, about various topics that develop, and have more life experiences.

#### **g. Teaching Reading**

It is known that reading is crucial to be taught since students can gain more knowledge and information from reading. Thus, teaching reading is aimed to facilitate students in mastering reading skills. Much research has been conducted in investigating students' reading ability. Some gave an emphasis on the influence of bottom-up, top-down, and interactive processing of reading as reviewed by Brown (2001: 399). Bottom-up processing requires students to work with “the linguistic signals” such as letters, morphemes, syllables, words, phrases, grammatical cues, and discourse markers to obtain the meaning of text when they are reading. Top-down processing is activating “our own intelligence and experience to understand a text”. In the latest view, interactive reading has become more acceptable since its experts believe that both processing should be activated in reading in order for students to have good understanding of a text.

From this explanation, teachers should take into account reading instruction which accommodates reading processing for the success of students learning.

To have good reading instruction, therefore, teachers should pay attention to some ways to prepare it. Seymor and Walsh (2006) as cited in Hedgcock and Ferris (2009) provide the ways as follows.

- 1) teachers should select the topics for reading assignments;
- 2) teachers should allow the latitude to students in selecting materials and the degree of guidance they require;
- 3) teachers should require the effort to enhance student motivation to read and build confidence in their literacy skills; and
- 4) teachers should prepare the range of reading strategies to be taught, practiced, and assessed.

By considering these ways, teachers can design reading instruction which covers learning and students' needs to acquire comprehension.

#### **h. Assessing Reading**

In language process of teaching and learning, assessment is an important role. To measure students' achievement which refers to the four language skills including reading, teachers need to conduct assessment. To make a good assessment, Alderson (2000:206) argues that it is better to deploy various techniques in assessing reading since there is no the best technique to measure

students' reading ability. It will depend on the purpose of assessing reading. The followings are some reading assessment techniques which Alderson (2000) further suggests.

1) Cloze test and gap-filling test

Although both tests are actually different, they require the test-takers complete the deleted words in a passage.

2) Multiple-choice techniques

These techniques are commonly used to measure reading comprehension since the testers can control the students' answers and processes of thinking by providing some answers choices, including the distractors.

3) Matching techniques

These techniques usually require the test-takers to precisely match the answers to the questions to be asked.

4) Ordering tasks

This type of technique makes the test-takers deal with the scrambled words, sentences, paragraphs, or texts, and then put them into the appropriate order.

5) Dichotomous items

This technique is quite similar with multiple-choice, but the difference is that the answer items are merely two choices.

6) Editing tests

The nature of this test is error correction. The test-takers need to identify the errors in the passages and then correct them.

7) Short-answer tests

In this test, the test-takers are asked to give a concise answer which indicates that they understand.

8) The summary test

As the name suggests, this test requires the test-takers to read a text and then summarize the main ideas of it.

9) Information transfer techniques

These techniques commonly use graphic texts such as diagrams, charts, and tables. The students are asked to identify the required information and then transfer it on to a table or any form.

From this explanation, it can be inferred that the application of all these techniques depends on the objectives of reading assessment to be achieved. The objectives commonly constitute the skills in reading to comprehend or understand

a text. Therefore, in assessing reading, teachers need to cover various types of techniques to have complete reading assessment.

## **2. Writing**

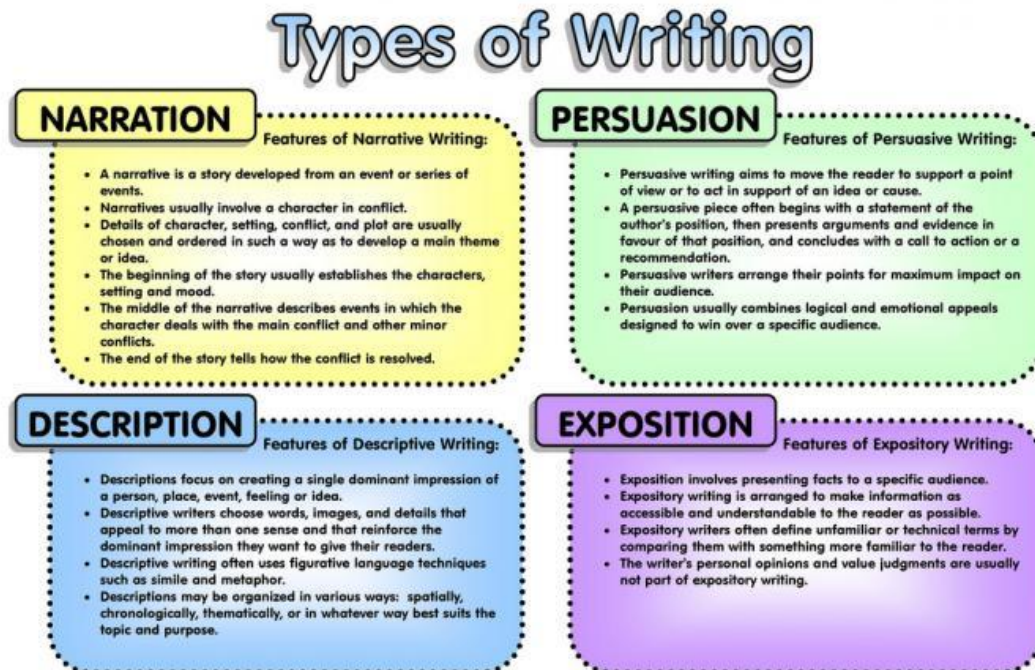
### **a) The Nature of Writing**

#### **1) Definition of writing**

According to Sattayatham and Ratanapinyowong (2008: 19), writing skill is very important. Heaton (1975:138) says that writing skills are complicated and difficult to teach as it requires not only skills in structure but also abilities to make conceptual decision through grammatical, stylistic, mechanical, and judgment skill. For Rivers (1968: 243), writing is an expression of ideas which aims to organize the habit of the language. Meanwhile, Harmer (2001:257) states that writing is how to produce language and expression that we have. He also argues that writing can be a process in which someone writes something that is greatly influenced by genre and elements in the learning activity.

From that elaboration, Writing can be interpreted as a complex process that requires a lot of skills to make things. Writing has a written symbol that represents a word. Therefore, writing becomes an activity to improve an understanding of a subject. Writing can mean ability not only to get ideas from the mind to a paper but to produce many more clear meanings and ideas.

#### **2) Types of writing**



**Figure 1. Types of Writing**

Young (1996:6) describes some types of writing. They are (1) narrative – to entertain or amuse, create emotions, motivate, guide, and give moral value to the reader; (2) recount - to retell the past experience to the reader; (3) description - to describe a something in detail about living, non-living or natural phenomenon; (4) response - to summarize and respond personally to an artistic work; (5) report - to classify or describe in general classes of phenomena; (6) procedure - to explain how to make or operate something by the steps; and (7) explanation - to explain how or why something occurs in scientific and technical fields.

### 3) Micro- and Macro-Skills of Writing

According to Brown (2004: 221), the micro- and macro- skills of writing include:

#### A. Micro-Skills

The micro-skills of writing include the ability to:

1. produce graphemes and orthographic patterns of English;
2. create writing at an efficient rate of speed to suit the purpose;
3. produce an acceptable core of words and use appropriate word order patterns;
4. use acceptable grammatical system (e.g., tense, agreement), patterns, and rules;
5. express a particular meaning in different grammatical forms; and
6. use cohesive devices in written discourse.

#### B. Macro-Skills

Meanwhile, the macro-skills of writing include the ability to:

1. use rhetorical forms and conventions of written discourse;
2. accomplish the communicative functions of written text according to form and purpose appropriately;

3. convey links and connections between events, and communicate such relations as main idea, supporting idea, new information, given information, generalization, and exemplification;
4. differentiate between literal and implied meanings when writing;
5. correctly and culturally convey specific references in the context of written text; and
6. develop and use a sequence of writing strategies, such as accurately assessing the audience's interpretation, using prewriting devices, writing with fluency in the first drafts, using paraphrases and synonyms, soliciting peer and instructor feedback for revising and editing.

By mastering the explanation above, the writer can write easily and produce good writing. It helps the students to know the elements of writing skill and assess their own writing skills to eventually produce a good writing by themselves.

#### **b) Writing Process**

Writing is a process of thinking that has result in a written form. It can help reconstruct thinking and give the important keys for increasing the coherence of the text (Journal of NELTA, Vol. 17 No. 1-2, December 2012).

White and Arndt (1991, pp.11-37) assert that there are some processes in writing. The first stage is Generating Ideas. It is the process of collecting as much information as possible from many sources. The second is focusing, in which the writer finds ideas and then describes them. The third one is Structuring Information. In this step, the writer groups the ideas from the general to the

specific ones. The last process is related to how to attract the reader to read the article.

**c) Writing strategies**

There are some writing strategies involved in writing:

1. Analyze the assignment

If the task is formed orally, the writer can write and read it until he/she is familiar with it. The writer must pay attention to the keywords which are often used in a single or set of keywords.

2. Consider the writing situation

To understand the purpose of a writing and to guess who the audience of the task, the author must examine the task.

3. Ask questions

Make sure that you understand a thought as expected. Sometimes, writing helps students explain a task.

4. Ask to see a sample

Ask to see the sample model the instructor wants. Model students often help and see examples of models will help you make assignments effectively.

#### 5. Make the Task in Your Own

Make the assignment your own. You must understand and know what you write.

#### **d) Teaching Writing**

The most important skills for teachers are teaching how to write effectively. Teachers must have many effective resources and materials to help students learn to write, when teaching writing.

Communication is a form of interaction people while writing is a means of communication that is very important for various types of activities. In other words, writing is not only a tool for living, but also a tool for survival. For this reason, the teacher must choose good material for teaching writing in order to improve students' writing skills.

There are some ways to teach writing skills. The first is to write what we think. We can express our idea through writing. The effects of writing on thinking suggest that students learn better when assigned work conducive to critical thinking (Newell, 1984). Nostrand (1979) found that the act of writing about an idea fostered new thoughts, while Weiss and Walters (1980), as cited

by Newell (1984) concluded that concepts became clearer to the student when written about.

The second is that creativity of the writing can increase students' skills. Good strategies can influence the quality of the students' writing and skills in their future. Scherff and Piazza (2005) stated that little expressive writing, such as drama, poetry, or responses to music – regardless of academic track or grade level – was being taught or assigned.

The third is writing ability. It is an effective and very important method for teaching writing. Beside that to middle and white students, it is also to educate a variety of poor students, English students, and students who are unable to learn.

#### **e) Assessing Writing**

Assessment can be interpreted as collecting results from student activities when learning. Can be used for formative and summative purposes. This is the main teaching activity and the teacher evaluates every day in formal and informal ways.

Assessment in writing can be interpreted as a process. Assessment and performance in the classroom through various different stages throughout the lesson and can be various forms of assessment. In an assessment process, teachers will be a motivator, collaborator, critic, evaluator, etc. (Brooke Horvath) and give different kinds of response.

The purpose of the writing assessment is to provide feedback to students. Because this is important for the development of students' writing skills.

The assessment of indirect writing consists of multiple choice tests in grammar, usage, and vocabulary. Direct assessment such as essay tests require the sample of student writing and are viewed by many writing assessment scholars as more valid than indirect tests because they are assessing actual samples of writing. Portfolio assessment consists of several pieces of student writing written over the course of a semester. Portfolio assessment is look more valid than timed essay tests because it focuses on multiple samples of student writing that have been composed in the authentic context of the classroom. Portfolios enable assessors to examine multiple samples of student writing and multiple drafts of a single essay.

### **3. The 2013 Curriculum**

The 2013 Curriculum (K-13) has been implemented at schools and *madrasah* since 2013. This curriculum originated from a response from various critics of the previous curriculum, namely the 2006 school-based curriculum. Regardless the varied opinions regarding the curriculum changes, K-13 is essentially developed to enhance the quality of education. The theme of K-13 is “to generate productive, creative, innovative, and affectionate people by strengthening attitudes, skills, and knowledge which are integrated.” Based on this, the curriculum is expected to produce productive, creative and innovative humans.

K-13 is better than the former one in some ways. First, through its Scientific Approach, the teachers will be more creative and the students will be more active. In this approach, the teachers are provided with some teaching models that can help them to be more creative in facilitating the

students' learning, and thus stimulating the students to be more active in learning. Second, K-13 is arranged and developed by considering the students' potential and needs, as well as the era development. Third, for assessment purposes, teachers must use an authentic assessment in which the students' affective domain is also assessed, leading to a more thorough assessment.

#### **4. Materials Development**

##### **a) The Nature of Materials Development**

The materials for teaching and learning are very important in the teaching and learning process. Teachers need many materials as sources for their effective teaching while students benefit them for their learning. Therefore, material developers or teachers should be able to develop teaching materials that better help students' learning since the available materials may not suitable to students' needs in learning. In her book, Graves (2000:149) describes that the material development is the process of teachers' project to complete the purposes and objectives of the subject by developing materials and activities in a series of ways. In developing the materials, teachers can make new ones and adopt or adapt the existing ones, and then organize them to achieve the purposes and objectives of the teaching and learning process.

Some factors should be taken into account in developing materials. McDonough, Shaw and Masuhara (2013:4) propose that context and syllabus can be factors considered in developing materials. In this case, the context refers to learners' characteristics and needs, the setting, the teaching and learning environment, which can be used as the criteria for selecting appropriate materials. The other one, the syllabus plays a role for accommodating principles to organize suitable materials. Moreover, Graves (2000) states that the teachers or material developers should be confident in their language teaching and learning, and use of additional materials based on learner needs as the factors in developing materials. It means that the teachers' confidence is articulated by how the content is selected, how context is defined, and how learners' needs are assessed.

#### **b) The Development Model**

This study adopts Dick and Carey's instructional material development model (Dick & Carey, 1990) to develop the learning activities. The development of each activity started with the identification of the goals. Performance objectives were then arranged for each goal, including students' behaviors and skills needed for the successful completion of the activities. Assessment criteria are developed because of the objectives and choosing learning strategies that are suitable for that purpose. The material development cycle is followed by selected activities. the evaluation cycle

starts from the final revision and development.

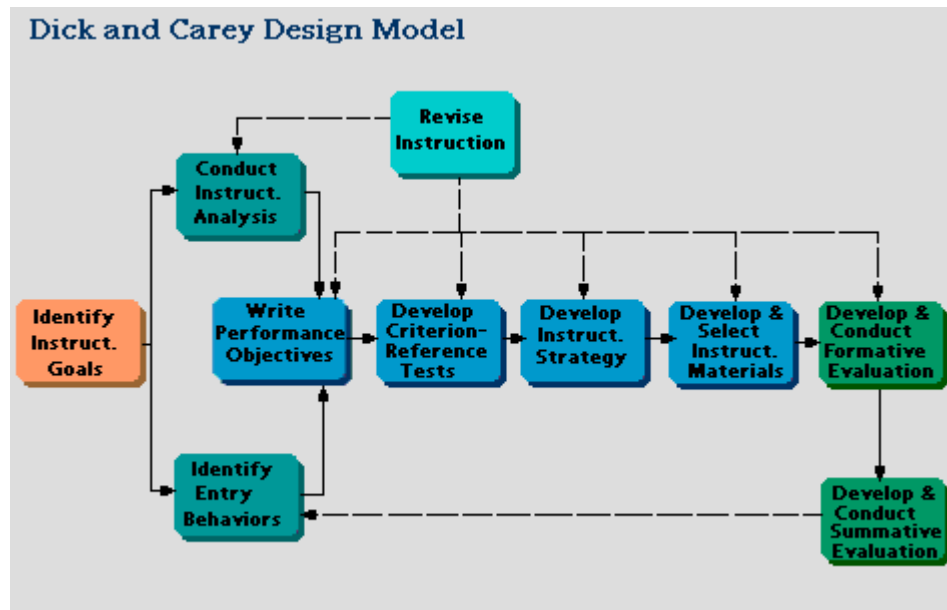


Figure 2. Dick and Carey's Development Model

## 5. Project-Based Learning

### a) The Nature of Project-Based Learning

As stated in the beginning of this chapter, Project-based Learning can be defined as learning approaches based on Curriculum 2013 that is expected to be carried out in the process of instructional. Application of Project-Based Learning, students will get competencies: attitudes, knowledge, and skills needed in later lives through producing products individually or collaboratively.

According to Moss and Van Duzer (1998), Project-based Learning is an instructional approach that contextualizes learning by presenting learners with products to develop. Most importantly, Stoller (2002) states

that Projectbased Learning is both process-oriented and product-oriented learning. Klein (2009:8) refers Project-based Learning as the instructional strategy of empowering learners to pursue content knowledge on their own and demonstrate their new understandings through a variety of presentation modes. In addition, Stoller (2002) defines Project-based Learning as a natural extension of fully integrated language and content learning, making it a viable option in a variety of instructional settings including English for Specific Purposes.

It can be concluded that Project-based Learning refers to a teaching method which involves students in a series of activities to make an end product individually and collaboratively through which they are given opportunities to construct their knowledge and practice their skills.

## **b) The Characteristics of Project-Based Learning**

The characteristic of project-based learning are:

- a. leads students to have important ideas and questions;
- b. framed around an inquiry process;
- c. according to student needs and interests;
- d. encourage by student independent production and presentation rather than teacher delivery of information;
- e. requires the use of creative thinking, critical thinking, and information skills to investigate, draw conclusions about, and create content; and
- f. connects to the real world and authentic problems and issues.

With the above characteristics, the teacher can create a learning experience that can produce an understanding of important ideas. Students can use their power to create a project that combines their interests, native language, cultural background, abilities, and various types of media. Therefore, PBL can be defined as a teaching approach that has a concept in the curriculum through projects guided by questions that support research and students can apply the knowledge gained.

### **c) Kinds of Project in Project-based Learning**

Project breaks down into several types. Henry as noted by Stoller (2002) proposes three types of projects based on the nature and sequencing of project-related activities. First, structured projects are determined, specified and organized by the teacher in terms of topic, materials, methodology, and presentation. Second, unstructured projects are defined largely by students themselves. Finally, semi-structured projects are defined and organized in part by the teacher and in part by students.

### **d) The Process of Project-Based Learning**

The process of PBL deals with how the teachers teach learners the use of project-based learning. The followings are probably the best steps for teachers to complete lessons using project-based learning so that the students can do their tasks with PBL very well.

### **1. Exposing students to an engaging topic that gets them think**

PBL is based on solving a question or a problem. Usually this problem is based on what is faced by students. When students have questions, this means that they are involved and think about learning material. It is hoped that in this case it can support research, exploration and further study because of the beginning of PBL.

### **2. Posing the essential question that will drive the project**

Students will make observations and questions that support research and learning. However, the teacher needs to help students ask the main questions for them. This question may not originate from Google. Because with Google, they will immediately give answers and cannot support their research studies. Questions must come from investigation and information gathering.

### **3. Designing a plan that lays out clear steps to follow**

Plans can be interpreted as a guide that identifies steps to examine a student's main question or problem. Having a plan will make it easier and a good opportunity for students to practice in writing. Teachers also need to design a plan and determine the standards to be addressed in the project, how to assess students' understanding and describe the materials and resources needed. This plan is useful for guidance in preparing teachers to assist students during the learning process and focus on learning objectives.

#### **4. Creating a schedule with flexible deadlines and posting it in the classroom**

The teacher can make a schedule after making the plan. The schedule can change because it is still a plan and can be accepted. Students must have an age-appropriate responsibility to implement and meet the deadline and adjust the schedule.

#### **5. Conducting research to explore the project's essential questions**

In this step students can learn important parts of the investigation. This includes interviews, internet research, reading books, watching documentaries or other things that help students explore the driving question.

#### **6. Guiding and monitoring students during their research**

The teacher acts as a guide for students during research and investigation. The teacher will assess how well students are learning. The teacher might help some students who need to be guided and do some clear commands.

#### **7. Developing the final product exhibiting students' learning**

After students do research and feel they can adequately answer their questions or problems, they will develop their learning products and teach others.

#### **8. Reflecting on what students have learned**

This stage is very important, sometimes it is forgotten. The teacher gives students the opportunity to think about what they have learned. They have to share with each other the activities they are doing that are successful which have been unsuccessful during their studies.

#### **e) The Strengths of Project-Based Learning**

PBL offers a wide range of benefits to both students and teachers. A growing body of academic research supports the use of PBL in schools to engage students, cut absenteeism, boost cooperative learning skills, and improve academic performance (George Lucas Educational Foundation, 2001). For students, benefits of PBL include (a) increased attendance, growth in self-reliance, and improved attitudes toward learning (Thomas, 2000) , (b) academic gains equal to or better than those generated by other models, with students involved in projects taking greater responsibility for their own learning than during more traditional classroom activities (Boaler, 1997; SRI, 2000), (c) opportunities to develop complex skills, such as higher-order thinking, problem-solving, collaborating, and communicating (SRI, 2000), and (d) access to a broader range of learning opportunities in the classroom, providing a strategy for engaging culturally diverse learners (Railsback, 2002).

#### **f) Project-Based Learning in the Classroom**

Planning a project, the teacher must plan what will be done in the class. This project includes schedules, time of year, standard testing, and other factors that influence it. The project focuses on information taught through teaching and discussion. Teachers must participate in class when during project learning.

**g) The Roles of Learners and Teacher in Project-based Learning**

Students do active learning through physical activities, thinking or mental activities during the learning process of Project Based Learning. This learning method focuses on student activities in solving problems that exist in the real world. (Wachyu and Rukmini, 2015).

In Project Based Learning, teachers need: 1) provide access to information in creating learning opportunities, 2) motivate learning by giving scaffolding instructions, modeling, and guiding students to make assignments, 3) supporting students to use the learning process and metacognitive, 4) giving a mark in student progress, identifying problems, giving feedback, and evaluating the whole. (Blumenfeld et al, 1991).

**h) Examples of Project-Based Learning in the Classroom**

Giving support to students use the new learning and practice important skills in the workplace is one of the designs of Project Based Learning. Project Based Learning shows several applications as follows:

- a. involves semi-structural learning based on problems and regulations in the real world,
- b. guiding students to obtain and use desired competencies in high-performance organizations (such as teamwork, problem resolution, and communication),
- c. requires students to develop organizational and self-management skills.

The best way to teach reading and writing has been explained by Zemelman, Daniels, and Hyde (1998). They said that the teacher gave more active learning activities in the classroom, the role of the teacher varied, focused more on thinking, learned more about a number of topics, more expanded the real text, students had many choices, more often collaborated, collaborative activities, heterogeneous classes . The teaching approach that suitable with above criteria is Project Based Learning.

#### **i) The Assessment of Project-Based Learning**

Effective assessment uses strategies that show progress and performance, and relate to the desired goals. Assessment strategies include performance assignments, teacher observation, communication, standard testing, and assessment articles developed by students and teachers.

The other assessment according to the Board of Regents of the University of Wisconsin System 2013 includes (1) written examinations,

(2) practical examinations, (3) concept maps, (4) peer assessment, (5) self-assessment, (6) instructor assessment, (7) oral presentations, (8) reports, and (9) student portfolios. Besides, there are some tips for assessing project-based learning. They include the followings:

- 1) keep it real with authentic products;
- 2) do not overlook soft skills;
- 3) learn from big thinkers;
- 4) use formative strategies to keep projects on track;
- 5) gather feedback fast;
- 6) focus on teamwork;
- 7) track progress with digital tools;
- 8) grow your audience;
- 9) do-it-yourself professional development; and
- 10) assess better together.

#### **A. Review of Related Studies**

here are several studies on Project Based Learning. One of them is the Application of Project-Based Learning in the English Classrooms (Kalabzová, 2015). The results of this study have eight main themes that are problematic and require good preparation for PBL and what should be focused by the English teacher when preparing students for the PBL

program. The results of this study also show that teachers must remember time management and motivation to learn from the start. This research is almost the same as what was done by the author.

The other research is Farida's (2015) entitled *Improving the Process of Teaching and Learning of Writing through Project-Based Learning in Class XI IPA-1 at MAN Yogyakarta III*. The research findings reveal that the use of project-based learning could improve both the teaching and learning process of writing and the students' writing skill based on a number of evidence. Firstly, the use of PBL improves the students' involvement in writing activity. The average of the students' involvement in the writing activity increases from 76.24% in cycle I to 87.73% in cycle II. Secondly, each step in PBL gives chances for the students to practice writing as they become more familiar with the process of writing. Thirdly, the provided topics close to real life problems make the students able to make connections and apply what they have learned and experienced using English. Fourthly, there are some significant improvements in the students' writing skills. The pre-test results show that only 39.29% of the students reached the passing grade. Meanwhile, the percentage of the students who reached the passing grade increase into 67.86% in cycle I to 96.43% in cycle II.

## **B. Conceptual Framework**

Developing teaching materials to help students achieve that goal is very important in the teaching and learning process. This is one of the ways that teachers do to make the teaching and learning process more effective.

The analysis of what students need from teaching materials is very prominent for teachers to know how a teaching-learning process should be carried out, including what teaching materials should be used. When students are taught using teaching materials, particularly English materials which are based on what they need in term of learning objectives, it will be easier for them to reach the objectives of the teaching and learning process. It is due to the fulfillment of the students' necessities on English materials to support the learning goals.

There are many methods that can help the teacher to develop the teaching and learning process, one of which is Project-Based Learning (PBL). Project-based Learning (PBL) can be interpreted as a model that focuses on project learning. PBL is a complicated task based on questions and problems related to students in planning, solving problems, making decisions, or investigating activities. Students are given the opportunity to do assignments independently with sufficient time and end with good presentations or product results. (Jones, Rasmussen, & Moffitt, 1997;

Thomas, Mergendoller, & Michaelson, 1999). A good PBL material provides a 'hook' lesson to get the kids motivated. Therefore, we should know what is needed to convince our students that what they are going to be doing is beneficial for them.

This learning requires careful planning and preparation. beginning with important ideas and questions. When you design the project and make the essential question that will launch the activities, it is important to remember that many content standards will be addressed. There are some steps in implementing PBL; they are to make essential questions, to design a plan of the project, to create a schedule, to monitor the students' and the project's progress, to assess outcomes, and to valuate experiences.

### **C. Research Questions**

1. What are the target needs of the Grade X students at State Senior High School SMA N 4 Purworejo in learning reading and writing?
2. What are the learning needs of the Grade X students at State Senior High School SMA N 4 Purworejo in learning reading and writing through PBL?
3. What is the design of the project-based reading and writing learning materials for Grade X students of SMA N 4 Purworejo?
4. What are the appropriate project-based reading and writing learning materials for Grade X students of SMA N 4 Purworejo?