CHAPTER II

REVIEW OF LITERATURE

This chapter presents the references from experts which are useful to give relevant knowledge in the field of the study for the next chapter. This chapter describes theories and reviews some relevant research findings. These explanations can be shown as follows:

2.1 Reading

2.1.1. Definition of Reading

Reading can be defined as a set of activities in teaching learning which is done to relieve uncertain meaning and get information from the text. It is supported by Grabe and Stoller (2002) stated that reading is a way to draw information from the printed page and interpret the information appropriately. Furthermore, they stated that the idea of reading also to do with purpose, experiences, strategies, skills, and even attitude towards reading. It means that reading facilitates a writer to share knowledge, ideas and feelings with the reader, where both of them have their own language patterns and experiences.

According to Klinger, Vaughn and Boardman (2007) reading is a process of constructing meaning that can be achieved through dynamic instruction suggested by the text, and the context of the reading situation. It is also supported by McEntire (2003) who defined that reading as a constructive process which the prior knowledge and experience are important to get a proper understanding of the information in a text.

2.1.2. Teaching Reading

According to the book of *Teaching by Principle; second edition* (Douglas Brown, 2000), reading ability will be developed best in association with writing, listening, and speaking activities. Led by Goodman's (1970) work, the distinction between bottom-up and top-down processing became a cornerstone of reading methodology for years to come. In bottom-up processing, the reader must first recognize a multiplicity of linguistic signals (letters, morphemes, syllables, words, phrases, grammatical cues, discourse markers) and use their linguistic data-processing mechanics to impose some sort of order on these signals. In top-down processing, we draw on our own intelligence and experience to understand a text.

More recent research on teaching reading has shown that a combination of top-down and bottom-up processing, or what has come to be called interactive reading, is almost always a primary ingredient in successful teaching methodology because both processes are important. "In practice, a reader continually shifts from one focus to another, now adopting a top-down approach to predict probable meaning, then moving to the bottom-up approach to check whether that is really what the writer says" (Nuttall 1996:17).

2.2   Writing

2.2.1. Definition of Writing

Writing is a process and product. A half a century ago, writing teachers were mostly concerned with the final product of writing: essay, report, story and seems like that. The compositions of their final product measured up against content, organization, vocabulary use, grammatical usage, spelling and

punctuation. When students focus on content to the message, they learn their own writing that's called process (Shih, 1986).

According to Hornby (2005), writing means "to make letters or numbers on a surface, especially using a pen or a pencil." Richards & Renandya (2002) mentioned that writing is the most difficult skill for L2 learners, since they need to generate ideas, organize them and translate these ideas into readable text which can be very difficult for students.

2.2.2. Teaching Writing

According to the book of *Teaching by Principles: second edition* (Douglas Brown, 2000), written language is simply the graphic representation of spoken language. Written products are often the result of thinking, drafting, and revising procedures that require specialized skills. The compositional nature of writing is focused students on how to generate ideas, how to organize them coherently, how to use discourse markers and rhetorical conventions to put them cohesively into a written text, how to revise text for clearer meaning, how to edit text for appropriate grammar, and how to produce a final product. A half century ago, writing teacher were mostly concerned with the final product of writing: the essay, the report, the story, and what that product should "look" like. A good deal of attention was placed on "model" compositions that students would emulate and on how well a student's final product measured up against a list of criteria that included content, organization, vocabulary use, grammatical use and mechanical considerations such as spelling and punctuation.

The termed of the process approach to writing instruction. Process approaches do most of the following (Shih, 1986):

a. Focus on the process of writing that leads to the final written product;

b. Help students to understand their own composing process;

c. Help them to build repertoires of strategies for prewriting, drafting, and rewriting;

d. Give students time to write and rewrite;

e. Place central importance on the process of revision;

f. Let students discover what they want to say as they write;

g. Give students feedback throughout the composing process (not just on the final product) as they attempt to bring their expression closer and closer to the intention;

h. Encourage feedback from both the instructor and peers;

i. Include individual conferences between teacher and student during the process of composition.

2.3   Integrated Reading and Writing

2.3.1. Definition of Integrated

According to the American Oxford dictionary and Thesaurus (1996), the term integrates means to (a) combine parts in a whole; (b) complete an imperfect thing by the addition of parts, to unify, coordinate and put together. Integration in education has three major purposes, to make learning authentic, meaningful and efficient. First, learning can be made authentic when it is paralleled with real world tasks. Secondly, learning can be made meaning in the sense that

information or knowledge construction is an integrative process, and rarely is information used to answer isolated problems. Lastly, integration makes learning efficient as it offers hope for expensive curriculum coverage (Gavelek et al., 1999).

Integration means that language and literacy are functional tools, rather than curricular entities to be studied or mastered in their own right; hence, and school subjects are seen as a basis for integration (Gravelek et al., 1999).

2.3.2. Integrated Reading and Writing

Reading and writing also-provide students with opportunities to involved with language that is somewhat more mature that what they currently use (Farris, 2001). Reading and writing connections have been proposed under the constructive orientation. That is, both reading and writing require learners to actively involved in constructing meaning (Spicey, 1989, 1990; Risemberg, 1996; Nelson & Calfee, 1998; Lee, 2000).

According Flood and Lapp (1987) reported a synthesis of research on reading and writing relationships, finding that reading has an influence on writing and vice versa; hence, they concluded that the two are cyclical and equally facilitative units that support one another. They found that better writers tended to be better readers; better writers tended to read more than poor writers, and better writers tended to produce more syntactically mature writing than poor readers. Schema theory holds that prior knowledge of the world enables readers to construct meaning from print by reconstructing the author's message and connecting with schemata present in memory.

The close relationship between reading and writing has been widely reported. Fitzgerald Shanahan (2000, pp. 40-42) elaborated four types of share knowledge that readers and writers use: "metaknowledge" (knowing about the functions and goals of reading and writing), "domain knowledge" (world knowledge and prior knowledge about substance and content), "knowledge about universal attributes" (knowing about letter recognition and grammar or rules for sentence construction), "procedural knowledge and skill to negotiate reading and writing", and "predicting, questioning, recalling, and trying to find analogies".

Therefore, reading and writing are closely related cognitive activities that are best taught using active or learner-centered processes. Research findings support the claims of teaching foreign language according to an integrated approach, especially the integration of reading comprehension with writing skills (Heffernan, 2006; Al-Ghamari, 2004; Faydi, 2003; Bose, 2003; Mekheimer, 2010). Researchers emphasise the fact that reading and writing are closely connected "as readers and writers activate schema to create meaning from their own and others' texts" (Mekheimer, 2010).

In this study, the researcher will integrate materials of reading and writing then she will develop it using multimedia application. The researcher found varicosity media, program and strategy which were done by previous researcher. The previous study that had done by some researchers about integrated reading and writing are; "*Commercial Software Programs Approved for Teaching reading and Writing in the primary Grades: Another Sobering Reality*" was the title of article by Meridith Lovell and Linda Phillips from University of Alberta. It was published in Journal of Research on technology in Education, Vol. 42(2), pp.197-

216. This article reports the results of a systematic and comprehensive evaluation of the suitability of 13 commercially available, authorized software programs for teaching reading and writing in the primary grades. The different of that study was using Commercial Software Program then the researcher will use Multimedia Software Program to create digital flipping book application.

Secondly, *Integrating Reading and Writing: A Response to the Basic Writing "Crisis"* as the title of article from Sugie Goen and Helen Gillotte-Tropp. In their article, they described a FIPSE-funded integrated reading/writing program developed at San Francisco State University in response to the latest basic writing "crisis". In this study, the authors concluded by offering some valuable lessons learned from this experience.

Thirdly, the title of the study was "*Effects of cooperative integrated reading and composition (CIRC) technique on reading-writing skills*" which was created by Erhan Durukan and published in Educational Research and Reviews Vol. 6(1), pp. 102-109, January 2011. The aim of this study was to analyze the effects of the cooperative integrated reading and composition (CIRC) technique and the traditional reading and writing pedagogical methods for primary school students. The subject of this study was 45 students from 7th grade at a primary school at the center of Giresun province. The design of this study was experimental research design. There was a statistically significant difference between the reading and writing skills of the experimental group and control group in terms of academic achievement and retention.

2.4   Developing Material

Tomlinson (2001), states that materials mean anything which can be used to facilitate the learning of a language (linguistic, visual, auditory or kinesthetic). These materials can be presented in print, live performance, on cassettes, CD-ROM, DVD, or in the internet. These materials can be instructional, experiential, elicited, or exploratory.

For developing test, the researcher must observe instructional development models according to ADDIE model which is adapted from some experts. The purpose of the instructional design models offer both educational and training organizations design steps, management guidelines and teamwork collaboration options with designers, technicians and clients. A model can also functions as a visual and communication tool to help conceptualize complex schematics or instructional design process along with how the various stages or elements relate to each other (Gustafson & Branch, 2002a). The application and value of a model is dependent on the instructional situation, problem and task (*Dick and Carey Systems Approach Model*, Siemens, 2002; Ryder, 2006).

Dick and Carey systems approach model is one of the influential ID system oriented models. Dick and Carey Systems Approach Model showing the linear for design instruction with review process. ADDIE components (indicated in bold text) are added for discussion analysis and they claimed to say that the systematic approach of the model is an effective and successful approach because of its focus on learners' objectives and final achievement prior to the planning and implementation stage. The final and important reason is the replicable and pragmatic design revising the design product where the product is usable for many

learners and different occasions; time and effort revising the design product

during the evaluation and revision process is recommended (Dick, Carey & Carey,

2001, p.2

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              │   Analyze   │      │   Conduct    │
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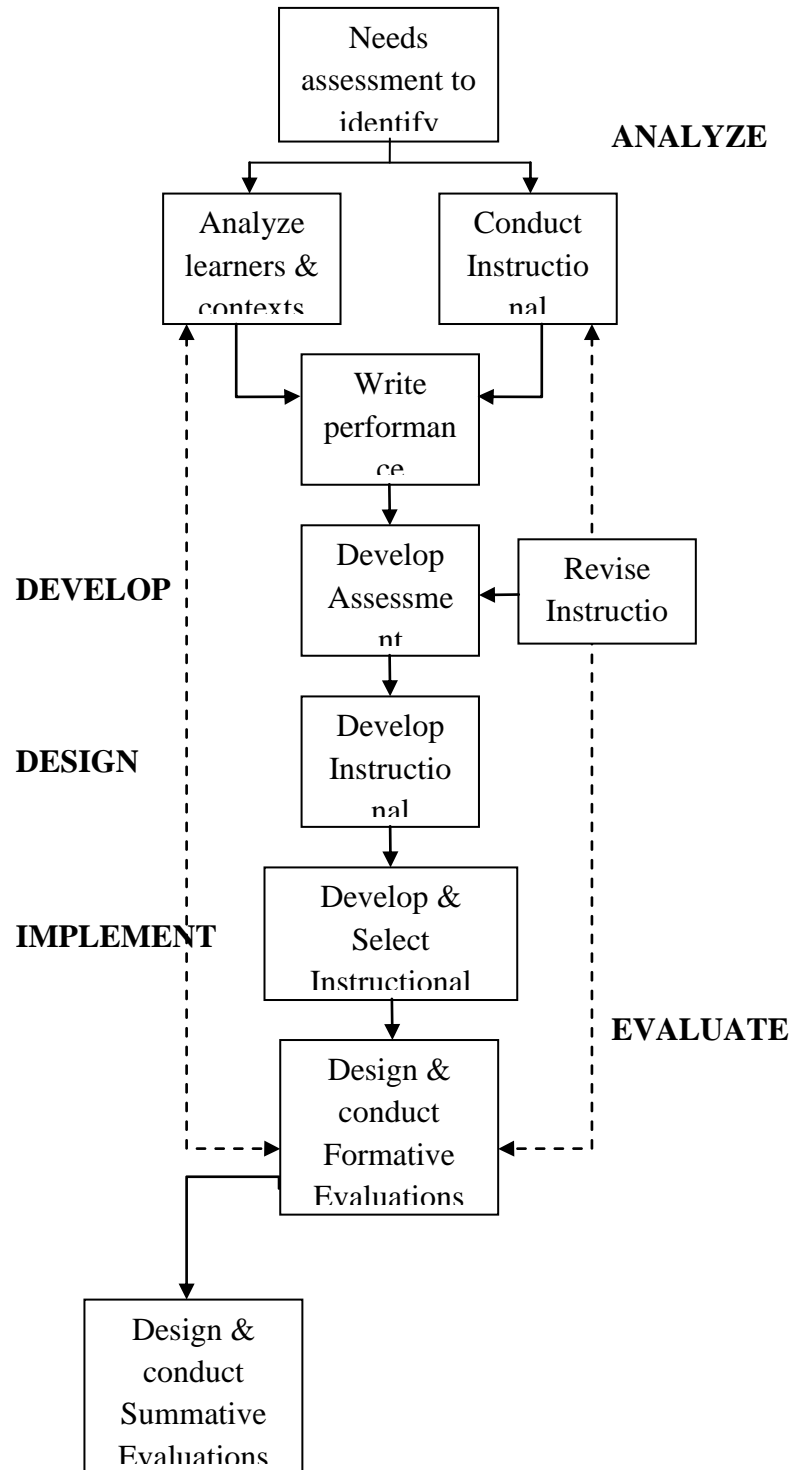
Figure 2.1: Dick & Carey Systems Approach Model (Dick, Carey et al. 2005)

The second instructional design approach is from Morrison Ross & Kemp's model places the most emphasis in the design process. Kemp states that the instructional design approach that focuses on curriculum planning stems from the learner's perspective rather than content, making it different from traditional design practice. Morrison et al. stated that the instructional designer must conduct a need assessment and goal analysis, also known as performance assessment to see if instruction or training is required. This is the problem identification stage is required prior the process of designing a course (Morrison Ross & Kemp, 2004).
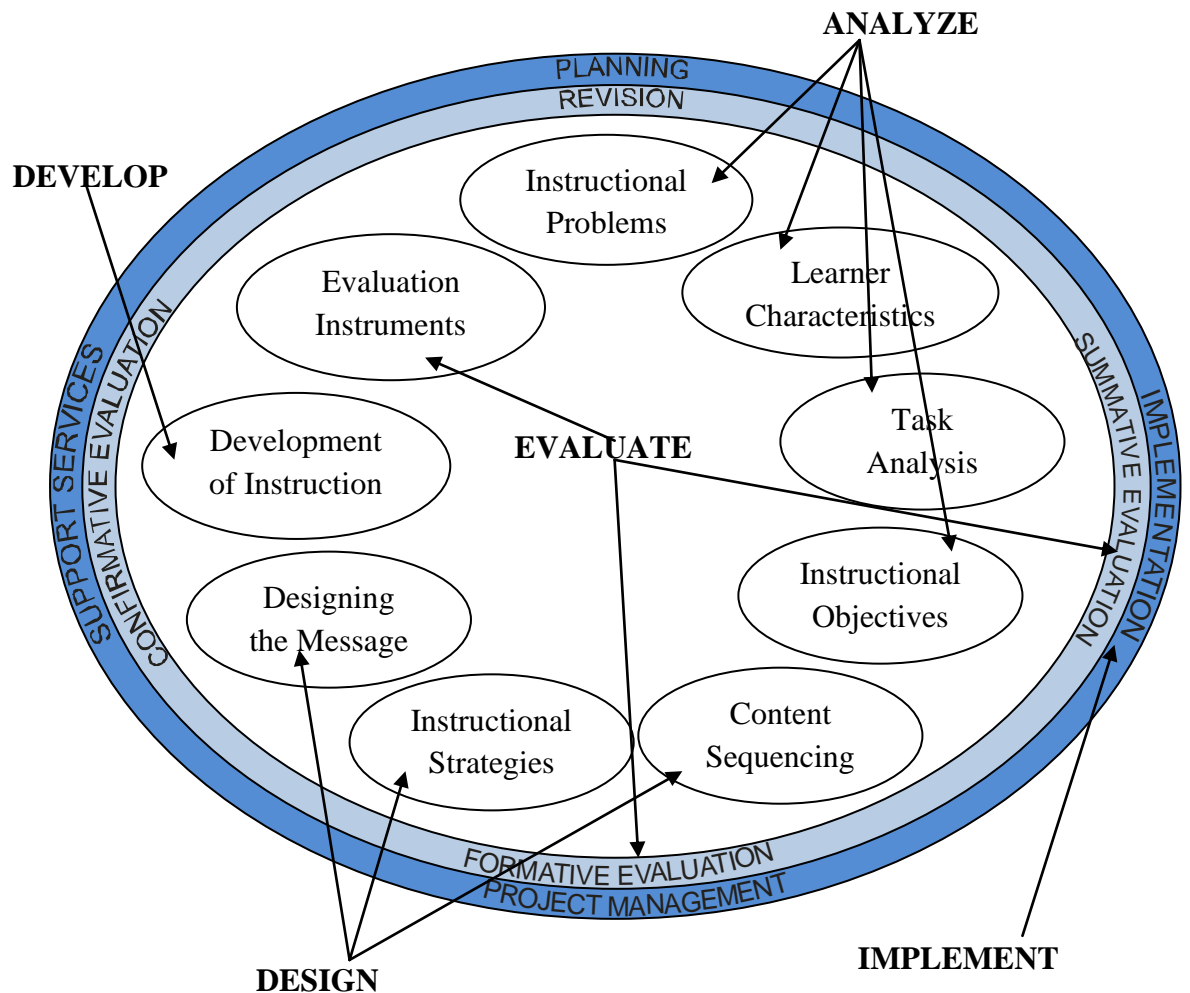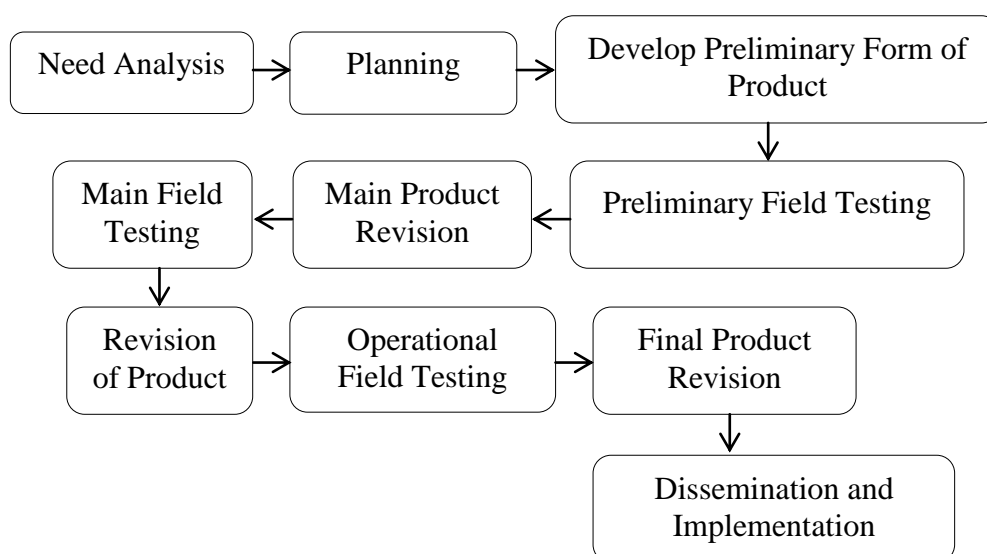

Figure 2.2: Kemp's Model (Morrison et al., 2004)

Like Dick and Carey's model, the formative evaluations which is a measuring fool for quality control during the development process is made up of three stages, one-to-one, small group and field trials for evaluating larger student or participant population. Summative evaluations conducted at the end of the instructional program are followed up by confirmative evaluations for reviewing student competencies and performance outcomes (Morrison et al, 2004).
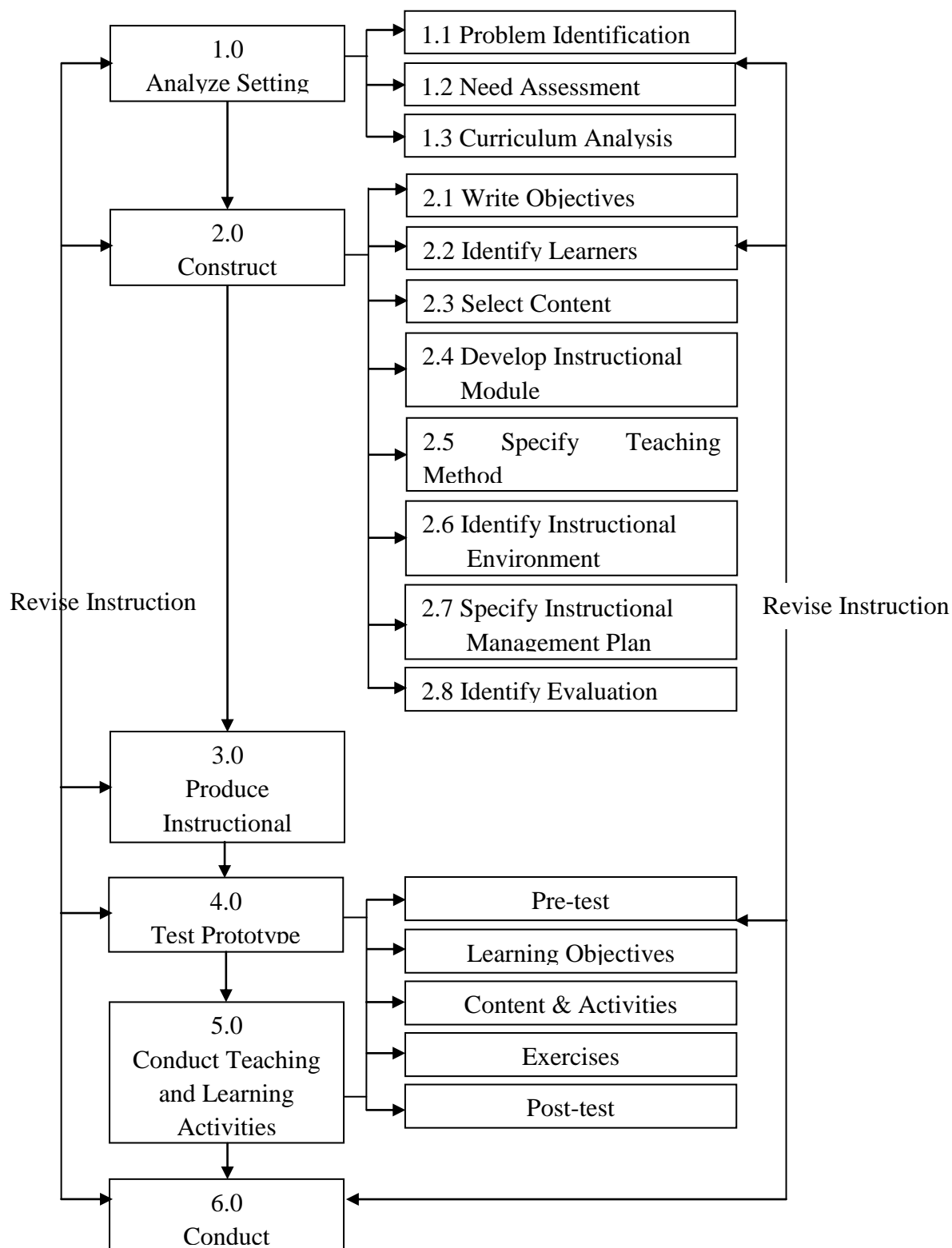
The third is Borg and Gall's model (1983, pp. 772), Education research and development (R & D) is a process used to develop and validate educational products. The steps of this process are usually referred to as the R & D cycle, which consist of studying research findings pertinent to the product to be developed, developing the product based on the finding, field testing it in the setting where it will be used eventually, and revising it to correct the deficiencies found in the field testing stage. It indicates that product meets its behaviorally defined objectives.

Educational research and development of Borg and Gall models' consists ten major steps, as follow:

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│of Product│    │Field Test │   │  Revision   │
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                                ┌────────────┐
                                │Dissemination│
                                │and Implement.│
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Figure 2.3: Borg & Gall Steps Scheme of Educational research, 1983

The fourth is Suppasetseree's Remedial English Online (SREO) Model,

was designed by Suppasetseree in 2005.

1.0 Analyze Setting	1.1 Problem Identification
	1.2 Need Assessment
	1.3 Curriculum Analysis
2.0 Construct	2.1 Write Objectives
	2.2 Identify Learners
	2.3 Select Content
	2.4 Develop Instructional Module
	2.5 Specify Teaching Method
	2.6 Identify Instructional Environment
	2.7 Specify Instructional Management Plan
	2.8 Identify Evaluation
3.0 Produce Instructional	
4.0 Test Prototype	Pre-test
	Learning Objectives
	Content & Activities
5.0 Conduct Teaching and Learning Activities	Exercises
	Post-test
6.0 Conduct	

Revise Instruction   Revise Instruction

Figure 2.4: SREO Model (Suppasetseree, 2005, p. 108)

The SREO Model was developed from many instructional designers, such as Dick and Carey, the Kemp Model, Klausmeier and Ripple Model, Gerlach and Ely Model. The SREO Model comprised six major steps and 16 sub-steps.

The last is ADDIE model which modified by Candra Hadi Asmara, 2011.
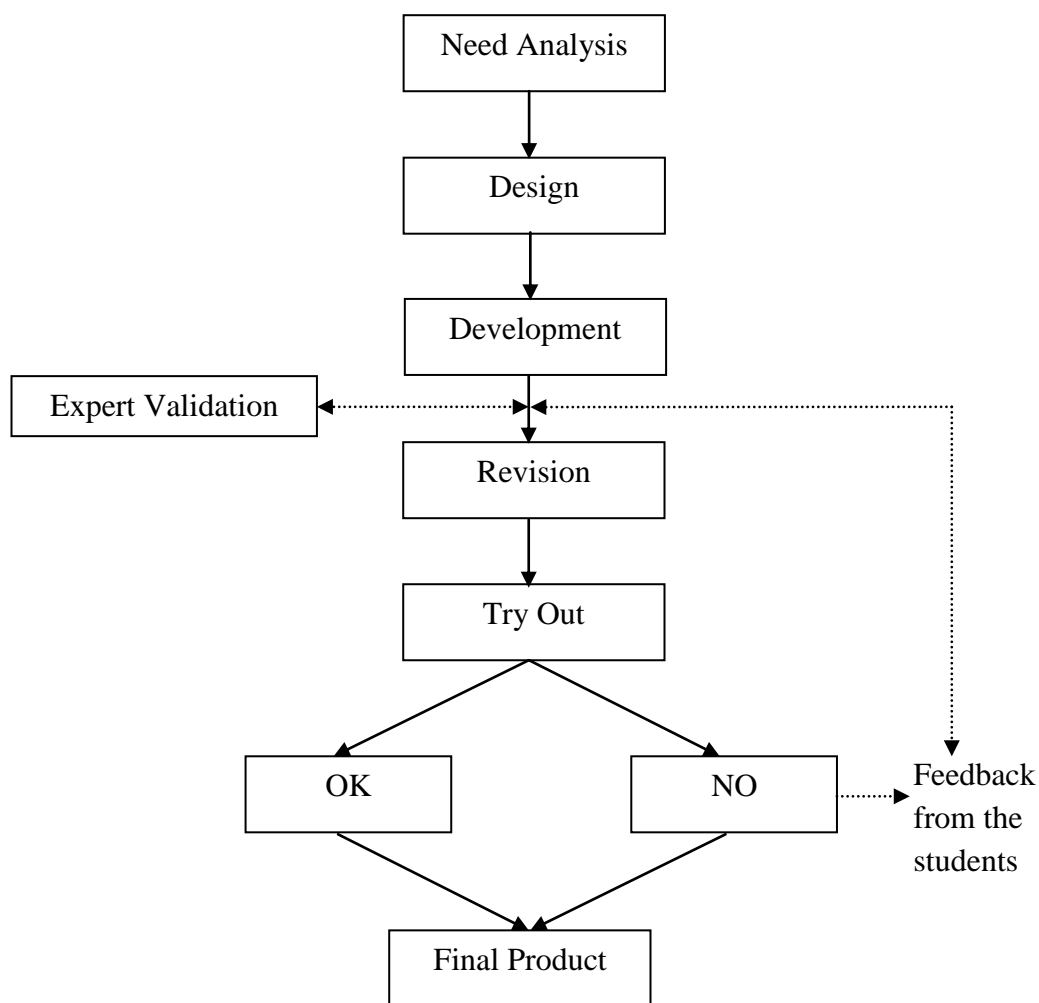
Figure 2.5: Candra Hadi Asmara Model, 2011.

According to five ADDIE models above, the researcher uses Borg and Gall models' but she modified which is related to her study. The modified of Borg and Gall models' is in chapter III.

ADDIE stands for Analyze, Design, Develop, Implement and Evaluate. It is a process for program development that has come out of the world of instructional systems development. According to approaches of ADDIE model above, the researcher use Borg and Gall's model.

2.4.1 Analyze

According to Nada (2015), analyze stage is the most important phase in this process. When instructional designers do the analysis phase before creating the plan, developing, or even implementing, they really save huge amount of courses, effort, and time. In order to carry out the analysis phase, we have to analyze four things, like we have to analyze the learners (where they are at, their skills and needs, etc.), develop an instructional analysis (to provide the necessary steps and present opportunities to learn and use new information in an instruction), create instructional goals (aimed at specifying the end desired result), and analysis's learning objectives (how to measure the attainment of goals). That means you have to be clear about your goals and where you want your learners to be.

Need analysis is the process to identify or to evaluate needs in a community or group or another which can be defined as a population of people. The identification of need is process to determine problems and attempt to solve those problems (Allison L; 2000).

According to Songhori (2008) stated that need analysis has a crucial role in the process of designing and carrying out any language course, weather it is as an English Specific Purpose (ESP) or general English course. Need analysis developed based on identified needs of the students and the learning environment.

In the other word, Hutchinson & Waters (1992) also defined needs analysis on the basis of "necessities" and "wants" in order to classify between what the learners have to know and what the learners feel they need to know.

2.4.1.1 Target Need

According to Hutchinson & Waters (1987) target need is an analysis in which it should be investigate in order to find about what are actually the students need to do in target situation. They also stated that in order to know how to analyze the target need of the learners. There are three cases that should be attention, those are: necessities, lack and want.

a.   Necessities

This aspect is about what is the students need in target situation. For example: in order to be a teacher, students have to master the topic that will be delivered, have ability to manage the class and how the way to deliver material.

b.   Lacks

This aspect is about what the students already know and not yet. The teacher can consider what necessities are missing. Lack also can be defined as the abilities or competencies that are not possessed by students to get the best performance in target situation. For example: English writing aspect that students know yet that Indonesian writing aspect.

c.   Wants

This aspect is about what the students want in learning target language. For example: about the material, the teacher has to give material that appropriate with students' expectation.

2.4.1.2 Learning Need

Students are the main system in a teaching process. They are not only the participants that only receive everything that was given by teacher. Analyzing learning need is important in order to get more information about the students. Hutchinson & Waters suggest a framework for analyzing learning needs which consists of several questions, each divided into more detailed questions. The framework proposed by Hutchinson & Waters (1987) for analysis of learning needs are why are the students taking the course?, how do the students learn?, what sources are available?, who are the students?. Those questions are needed to know the students' condition also their need in the process of learning.

2.4.2 Design

Design is the second step of ADDIE model. This phase is really about the instruction. According to Nada (ADDIE Model, 2015), the instructional designer in this step thinks about how design instruction can really be effective in ways that facilitate people's learning and interaction with the materials you create and provide. Furthermore, in the design phase the instructional design evolves and focuses on designing assessment for researcher topic, select a form of the course, and creating their own instructional strategy.

According to curriculum which is used by SMP N 4 Gresik, *KTSP* (*Kurikulum Tingkat Satuan Pendidikan*) then the researcher uses Students-Centered Learning (SCL) as an instructional approach to influence content, activities, materials and pace of learning.

Student-centered learning models personalize learning with the use of competency-based approach, supported by blended and online learning modalities and environment, as well as extended learning options and resources (Students-Centered Learning, 2016).

The student-centered approach takes its roots from the constructivist theory. Constructivist is essentially the educational philosophy that "students learn more by doing and experiencing rather than by observing" (Brown, 2008).

The researcher use Project-based Learning approach to design the book that will be taught, Project-based Learning (PBL) is a model for classroom activity that shifts away from the usual classroom practices of short, isolated, teacher-centered lessons. PBL learning activities are long-term, interdisciplinary, student-centered, and integrated with real-world issues and practices. It is a method that fosters abstract, intellectual tasks to explore complex issues (Project-Based Learning Handbook "Educating the Millennial Learner", 2006).

There are six steps to Project-based Learning issues (Project-Based Learning Handbook "Educating the Millennial Learner", 2006);
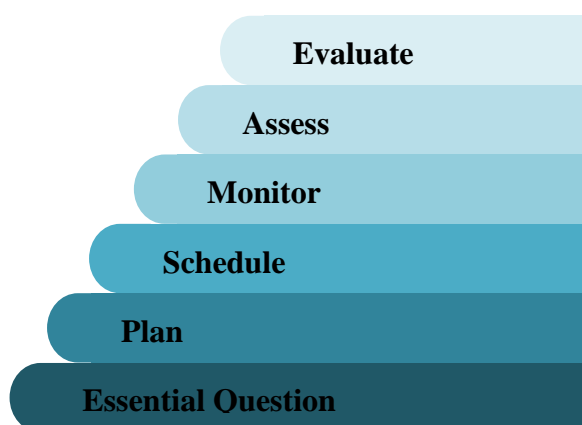
Figure 2.6: Six Steps of Project-based Learning "Educating the Millennial Learner", 2006

- Step 1 Essential Question

  o Take a real-world topic and begin an in-depth investigation.

  o Question is based on situations or topics that are authentic.

  o Make students feel that they are making an impact by answering the question or solving the problem.

  o Make the question relevant for students. The questions should have meaning in their lives at the moment of time.

- Step 2 Design a plan

  Select activities that support the question. Materials and resources are made accessible to students. Prepare to delve deeper into new topics and issues.

- Step 3 Create a Schedule

  Design a timeline for project components. Realize that changes to the schedule will happen. Guide students when they appear to be going in a direction that has no connection to the project.

- Step 4 Monitor Students and Project Progress

  Teach students how to work collaboratively. Designate fluid roles for group members. Let students choose their primary roles but assume responsibility and interactivity for other group roles.

- Step 5 Assess the Outcome

  Assessment provides diagnostic feedback and helps educators set standards. It allows one to evaluate progress and relate that progress to others. It gives students feedback on how well they understand the information and what they need to improve on. Assessment also helps teacher design instruction to teach more effectively.

- Step 6 Evaluate the Experience

    Set a time for reflection of daily activities. Share feelings and experiences, and discuss what worked well and what need change. Share ideas that will lead to new questions thus new project.

2.4.3 Development

According to Nada (ADDIE Model, 2015), develop depends on the first two phases; the analysis and the design phase. In this third phase, the instructional designers integrate the technology with the educational setting and process. Also, keep in mind the backup plan in case that the technology that we choose does not work. For example, if we consider Google research to find some information about what the word Ancient civilization means and the Internet does not work, we have a backup, which is PowerPoint presentation. Moreover, the instructional designer starts to develop and create a good quality factual.

2.4.3.1 Multimedia Application

A multimedia computer system is one that is capable of input or output of more than one medium. Typically, the term is applied to systems that support more than one physical output medium, such as computer display, video and audio. (Rockwell, Geoffrey and Andrew, 2004)

Multimedia is the field concerned with the computer controlled integration of text, graphics, drawings, still and moving images (video), animation, audio, any other media where every type of information can be represented, stored, transmitted and processed digitally (Cardiff University, 2005).

A multimedia application is an application which uses a collection of multiple media sources, e.g. text, graphics, images, sound/audio, animation and/or video. Examples of Multimedia Applications include; World Wide Web (www), multimedia authoring, e.g. Adobe/Macromedia Director, hypermedia courseware, video-on-demand, interactive TV, computer games, virtual reality, digital video editing and production systems, multimedia database systems (Cardiff University, 2005).

Multimedia application is a collection of some software to create a product. In this study, the researcher use Adobe Flash CS6, CorelDraw X7 and Adobe Illustrator CS3 to create a flip book.

Software that will used by researcher to create the product are:

a. **Adobe Flash**

According to the book (*Visual Quick Start Guide: Macromedia Flash 8 for Windows and Macintosh)*, flash began life as Future Splash Animator, a nifty little program for creating and animating vector art. Flash uses standard animation techniques to create the illusion of movement. You create a series of still images, each slightly different from the next. By displaying the images rapidly, one after another, you simulate continuous movement. Flash's animation tools help you create, organize, and synchronize the animation of multiple graphic elements, sounds, and the video clips. (Katherine Ulrich, 2006).

b. **Corel Draw**

According to the book of *CorelDraw® Graphic Suite X4*, CorelDraw® Graphic Suite X4 is an affordable and comprehensive suite of intuitive page-layout, illustration, photo-editing, and bitmap-to-vector tracing applications. Users

can confidently tackle a wide variety of project – from logos and Web graphics to multipage brochures and eye-catching signs. With its text and page-layout enhancement, market-leading file format compatibility, and high-quality content, this powerful suite is the ultimate design partner to help users turn inspiration into stunning results.

Based on Gary in CorelDraw® X4 The Official Guide, CorelDraw has developed into a full-featured, professional suite of graphics applications for users of all skill levels to create illustrations, design professional layouts, and work seamlessly between pixel-based and vector graphics, with powerful editing tools in a completely integrated, easy-to-use bundle.

c. Adobe Illustrator

Adobe illustrator is used to create graphics and type in vector format. Vector graphics are made up of point, lines, and curves that are defined by mathematical equations. Vector graphics are resolution independent, which means that they can be resized to any size without losing quality (California State University, 2011).

2.4.4 Implementation

This phase is about transforming our plan into action. In order to go through this phase, we have to consider three major steps, which are training the instructors, preparing the learners, and organizing the learning environment. With these three steps we can display our course in very active and authentic ways to achieve the implement phase (Nada, 2015).

2.4.5 Evaluation

The final process in ADDIE model is Evaluation phase. It is very important to evaluate each step in order to make sure that we achieve our goals using the instructional design and materials to meet the learner needs. Additionally, when we talk about evaluation, we talk about two types of evaluation, which are formative evaluation and summative evaluation. First, formative evaluation is a continuing process that we do as we are working on our instructional materials in each phase on ADDIE model. There are three basic processes of formative evaluation, which are one to one, small evaluation group, and trial in the field. When we evaluate, we want to choose learners that have similar features to our real learners and evaluate the materials based on that (Nada, 2015).