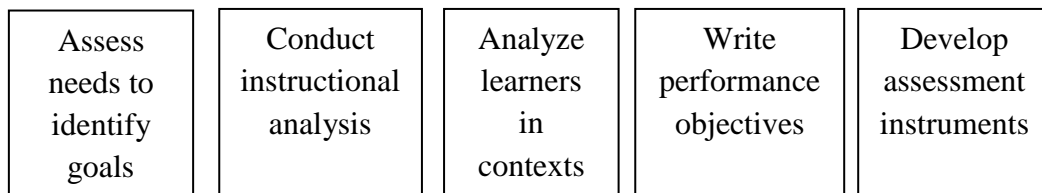# CHAPTER III
RESEARCH METHODOLOGY

This chapter discusses the methodology of the study related to design model, design procedure, subject of the data, kind of the data, data collection instruments, and data analysis techniques.

A. Design Model

This study is a preliminary R&D research or at the first stage, that is to know the students' and teachers' need toward students' worksheet likes to know the type of worksheet who is desired by students and teachers. For the next stage, this study aims to develop the English students' worksheet for the tenth grade of vocational high school of Palangka Raya. So, the study start by activity research is to get information about the need user and will be continued by activity development is to produce an equipment learning (product). This development can be researched by the next researchers. Therefore, the writer does this research until the first stage.

B. Design Procedure

The design's procedures in this study consist are:

Assess needs to identify goals	Conduct instructional analysis	Analyze learners in contexts	Write performance objectives	Develop assessment instruments

Step 1, involves the definition of goals for the instructional program or product, which often includes a needs assessment. Steps 2 and 3 may occur in either order, or simultaneously. In step 2, an instructional analysis is undertaken to identify

the specific skills, procedures, and learning tasks that are involved in reaching the goals of instruction. Step 3 is designed to identify the learners' entry skills and attitudes, the characteristics of the instructional setting, and the characteristics of the settings in which the new knowledge and skills will be used. Step 4 involves translating the needs and goals of instruction into specific performance objectives. During step 5, assessment instruments are developed. These instruments should be directly related to the knowledge and skills specified in the performance objectives.[1]

C. Subject of the Study

The subjects of this study were the English teachers and students of eleventh grade. The numbers of English teachers are ten teachers, eight of them from SMKN 1 Palangka Raya, and two of them from SMK Al-Islah. While, the numbers of students are 100 of 300 students of the eleventh grade in SMKN 1 Palangka Raya in academic years 2014/2015. The reason of the writer chooses one third of the eleventh grade in SMKN 1 Palangka Raya based on Arikunto that says if the amount of the subject is large; it can be taken from 10-15% or 20-25% or more. In this case, the writer uses random sampling. It means that all members of the subject have equal chance to be researched. The techniques are:

1. The writer lists the subject alphabetically

2. Every number of individual is written in a peace of paper, and then they are rolled and enter to a box

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[1] Meredith D. Gall, Joyce P. Gall, and Walter R. Borg, *Educational Research an Introduction: Seventh Edition,* Boston: Pearson Education, Inc, 2003, p. 569.

3. The rolls of papers in the box are mixed

4. Then, the rolls of papers are taken singly

5. The results of taking singly to the numbers of subject are taken to be the subjects who are researched.

D. Kind of the Data

This data was designed as a qualitative and quantitative research study (mix). As it as well known, qualitative research is the one that produces descriptive data, such as documents, interviews or observations. Document and observation analysis was used in this study. The quantitative research is explaining phenomena by collecting numerical data that are analysed using mathematically based methods. In line with the aim in research questions of this study, document analysis can show change and development about topic, allows making and overview of subject and provides an in-depth analysis of previous studies.

E. Data Collection Instruments

The research data is information about a reality or empirical phenomena in the form of figures of statements. One of the stages of the research process of data collection. The collection of data is an exhausting activity in the research process. Data mining research done by applying certain techniques, according to the type of desired data in the study.

There are several techniques that can be used by researchers to collect research data, including: interview, observation, questionnaires, documentation, and testing techniques. But, in this study the writer uses some techniques, including:

observation, questionnaire, and documentation.

Observation was used to observe activities or interactions between students and teachers during the teaching – learning process. The writer also makes lists or predictions about the incident while that might occur during the learning activities in the class.

Questionnaires were used to know teachers' and students' needs toward English worksheet to support teaching learning process. The questionnaires were given to the English teachers and the students.

Documentations were used to collect facts and data toward English worksheet related to teachers' and students' needs to support English learning.

F. **Data Analysis Techniques**

The technique of data analysis is used by the writer in this design research of R&D technique. In this technique she describes the development of student worksheet for tenth grade of SMKN 1 Palangka Raya, and knows quality of the worksheet for the subject.

Procedures of data analysis of this study, there are:

1. The writer distributes questionnaires to the students and English teachers about the needs of students and teachers to the worksheet

2. The writer analyzes the questionnaires per item.

3. The writer makes diagram based on percentage of the students' and teachers' answers.

4. Finally, the writer concludes the needs of students and teachers regarding the types of worksheet, it must match and help students and teachers in the learning process.