**CHAPTER III**

**RESEARCH METHOD**

1. **Research Design**

In this study, development research is used as a research design. The procedure entails a cycle of research and development, R&D that includes field testing, reviewing, and refining research findings. Inadequacies discovered during the field test phase are fixed using this procedure.

The steps of the R&D cycle, as outlined by Borg & Gall, are as follows: planning, research and information gathering, significant product revision, initial field trials, initial product development, dissemination, and implementation. To put it briefly, there are three primary phases to the R&D cycle: information research and testing, initial product development, and evaluation. Interviews, observation, and needs analysis are all part of research and information collection. The planning stage involves focus group discussions with teachers and students. Performance product development involves data collection and analysis for the design of reading comprehension materials. Data was collected from questionnaires, interviews, and observations. Questionnaires, interviews, and observations function as needs analysis tools to create profiles of student needs, desires, and shortcomings. Preliminary field trials involve implementing the design of initial reading comprehension materials. The main product revision includes initial revision of reading comprehension material and socialization, and implementation includes final implementation of reading comprehension material based on outcome based education by the Grade Eleventh Students of SMK AL WASHLIYAH 12 SEI RAMPAH.

R&D cycle from Borg&Gall (2019:24), the process of developing takes more the presentation of this process. The process doesn‘t end to the developing steps. Furthermore, it will be continued to the validating and revising steps. Educational 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 consists 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 wil be used eventually, and revising it to correct the deficiencies found in the field testing stage. In indicate that product meets its behaviorally defined objectives.

****

**Chart 3.1**

**R&D cycle from Borg&Gall**

Conceptually, the research and development approach includes 10 general steps, as outlined by Borg & Gall in the following model:

1. Research and information gathering; This step includes, among other things, literature studies related to the problem being studied, and preparation for formulating a research framework;
2. Planning; This step includes formulating skills and expertise related to the problem, determining the goals to be achieved at each stage, and if possible/necessary carrying out a limited feasibility study;
3. Developing the initial form of the product, namely developing the initial form of the product to be produced. Included in this step is preparing supporting components, preparing guidelines and manuals, and evaluating the suitability of supporting tools;
4. Preliminary field trials, namely conducting initial field trials on a limited scale. by involving as many as 6-12 subjects. At this step data collection and analysis can be done by means of interviews, observation or questionnaires;
5. Revision of the main product, namely making improvements to the initial product produced based on the results of the initial trial. It is very possible for this improvement to be carried out more than once, according to the results shown in limited trials, so that a draft of the main product (model) is obtained which is ready to be tested more widely;
6. Main field trials, main trials involving all students.
7. Revision of operational products, namely making improvements/refinements to the results of wider trials, so that the product developed is an operational model design that is ready to be validated;
8. Field operational test, namely the validation test step of the operational model that has been produced;
9. Revision of the final product, namely making final improvements to the developed model to produce the final product;
10. Dissemination and implementation, namely steps to disseminate the products/models developed.

The schematic is referenced from the main steps in the Borg and Gall R&D cycle. The adaptation is manifested in the form of technical planning, targets and types of activities to be carried out at each stage.

1. **Research Setting and Subjects**

 This research was conducted at SMK AL WASHLIYAH 12 SEI RAMPAH, Class XI students for the 2023/2024 academic year were the subjects of this research. The number of students is 40 people. There are two reasons why researchers chose this class as the setting and subject of this research. First, this school does not implement based on Outcome Based Education (OBE). Then there is the opportunity for researchers to conduct research by implementing based on Outcome Based Education (OBE). Second, after interviewing english teachers in class, researchers found several difficulties experienced by students in english reading comprehension. Therefore, researchers intend to apply based on Outcome Based Education (OBE) to solve student problems and improve reading comprehension.

1. **Population and Sample**
2. **Population**

The population that will be used as research are students of Grade Eleventh Students of SMK AL WASHLIYAH 12 SEI RAMPAH. There are 2 classes, XI TKJ with 15 students and XI TBSM with 18 students. The total of number of students consist 35 of students.

1. **Sample**

 In taking the sample, the writer chooses class XI-TKJ, there are 15 students experimental group.

1. **Research Instrument**

In qualitative research, the instrument is the researcher. Instruments are needed to obtain comprehensive data. This research obtained data from three types of data, namely interviews, field observation notes, and document notes. Thus, the preparation of the data instruments is an interview guide, an observation guide, and documents implementing Outcome Based Education (OBE). All data will be analyzed and attached to this research attachment. In addition, for data consistency, the teaching process will be recorded via audio or video, and teaching documents (curriculum, syllabus, lesson plans, and student assignment instruments) will be photocopied, and documents based on Outcome Based Education (OBE): in the form of student activities implementing Based on Outcome Based Education (OBE).

1. **Procedure of Data Collection**

The study collected the data by applying the following techniques:

* + - 1. Study Literating

 The Study literating was the method that base on previous research like a journal or text bool that support the theory and explanation about OBE and Reading Comperhansion.

2.Interview

 In addition to the questionnaire, semi-structured interviews are conducted with the students. In addition to students, teachers and principals are interviewed to identify their professional needs, language skills, assignments and deficiencies, learning styles, teaching methods, perspectives, and suggestions for better and engaging English learning. The interview is a solid foundation because it is a triangulation in conducting the questionnaire. Furthermore, interview sampling will be based on sampling criteria, because the Likert scale analysis of the questionnaire forms the basis and is used as a follow-up. The interview sample was selected by purposive sampling technique. The reasons for using this technique lie in the research objectives, to Develop Reading Comprehension and to increase the effectiveness of Based on Outcome Based Education (OBE) and there by gather information from carefully selected members. There will be 15 students, 2 teachers, 1 principal for the interview session.

1. Observation

The researcher observes certain grade levels to get the main activity. Observation allows researchers to see learning activities, learning materials, and classroom management. Observations are made at least twice. Researchers used tape recorders, field notes, and observation guidelines during the process. The role of the researcher is participant observer. Therefore, since the researcher is the instructor of the course, the researcher is a complete participant because the researcher experiences the same things as the participants. The researcher observed two classes: a control class and an experimental class.

1. Forum Group Discussion (FGD)

To achieve an in-depth understanding of data collection and carrying out the planning phase, focus group discussions are conducted with teachers, principals, and curriculum representatives.

1. Documentation

As a program that has been running for two years. Several documents need to be analyzed to collect data, such as English curriculum documents, English syllabuses, English annual programs, teacher lesson plans, and program evaluation documents, along with based on Outcome Based Education (OBE) document.

1. **Technique of Analyzing Data**

The data have been analyzed in form of qualitative and quantitative. The qualitative data are collected from the result of interview section of the teacher’s recording. Thus, the quantitative data are collected from the tabulation of the results of students’ questionnaire and the checklist of media validation by the experts. The data of students’ needs analysis questionnaires are counted and changed into percentage (%).

1. In developing reading comprehension material based on outcome-based education (OBE), several process criteria were used through the R&D cycle at Borg & Gall.
2. In validating the reading comprehension based on outcome-based education (OBE) material, the experts in designing and validating the method by using method assessment.
3. Media validation is analyzed using quantitative descriptive techniques that describe the application of learning media. This analysis is used to describe the characteristics of the data for each variable. The tabulation uses a Likert scale with five alternative answers. Namely: Very Good = 5, Good = 4, Fair = 3, Bad = 2, and Very Bad = 1. The indicators for each category in each item are calculated to get a total score.
4. To answer the hypothesis of this research, which is related to the effectiveness of the teaching method used, the researcher uses the N-Gain formula to obtain accurate results. The formula for N-Gain itself is as follows:

N-Gain = $\frac{post test-pretest}{Ideal value-pretest}$

Note:

N-Gain = Value of gain-normality

Post-test= sudent post-test score

Pre-test= student pre-test score

Ideal value = maksimum score

The results obtained from the test will be categorized based on the interpretation table of N-Gain effectiveness.

**Table 1:Status Category of N-Gain Effectivity**

|  |  |
| --- | --- |
| **Percentage (%)** | **Status** |
| < 40 | Not Effective |
| 40-55 | Less Effective |
| 56-75 | Effective enough |
| >75 | Effective |

Reference: Jariyah *et al* (2022:113).