

CHAPTER III

METHOD OF DEVELOPMENT

A. Research Design

Sugiyono (2013) stated that Research and Development (R&D) is an established methodology employed to design and refine tailored products while evaluating their efficacy. The process typically commences with an in-depth analysis of the requirements, wherein researchers delve into the specific needs and demands. Subsequently, to ascertain the product's suitability and functionality for widespread adoption, rigorous testing procedures become imperative. Consequently, R&D unfolds as a protracted journey spanning across several years, characterized by iterative refinements and enhancements. Notably, Competitive Grant Research, generously funded by the Directorate General of Higher Education, exemplifies a variant of research aimed at yielding tangible products, thereby aligning with the overarching principles of research and development.

Borg and Gall (1983) mentioned that R&D still plays a minor role in education. Less than one percent of education expenditures are for this purpose. This is probably one of the main reasons why progress in education has lagged far behind progress in others field.

The research design used in this research is *development research* (R&D). Gall and Borg (2007), explained that Research and development is an industry-based development strategy used to create new goods and procedures that are methodically field-tested, assessed, and revised until they fulfil stated criteria for

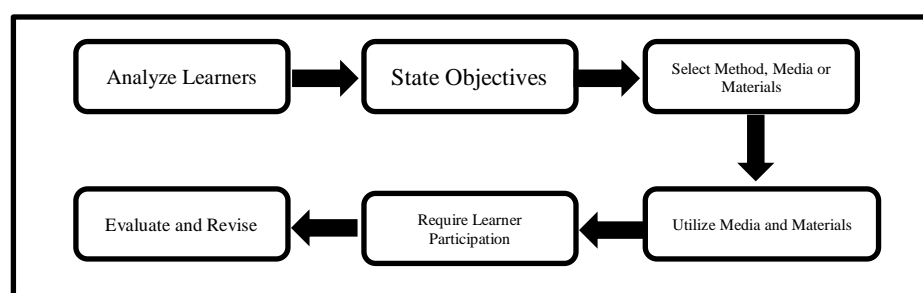
effectiveness, quality, or other similar standards. Gall and Borg mentioned, research and development is an industry-based model development research process that results in goods and methods. Field tests, evaluation, and improvement are also used in research and development to get effective, quality, or consistent results.

B. Research Procedure

Smaldino (2012) stated that, the ASSURE model stands as a comprehensive instructional design framework renowned for its efficacy in planning and delivering effective teaching. This model serves as a roadmap, particularly valuable in integrating multimedia and technology seamlessly into educational practices. By embracing the principles of ASSURE, educators are empowered to craft instruction that engages learners and maximizes learning outcomes. Its structured approach ensures thorough planning, implementation, and assessment, fostering a dynamic learning environment tailored to meet diverse learner needs.

Here are the steps to follow when using the ASSURE model for designing English vocabulary games:

Figure 3.1: Development Steps



1. Analyze learners

Start by analyzing the general characteristics of the learners, such as their reading skills, cultural background, and motivation level. This information will help you choose appropriate strategies and resources to aid the learning process.

2. State objectives

Clearly define the learning objectives for the vocabulary games. These objectives should be specific, measurable, and achievable.

3. Select methods, media, and materials

Choose appropriate methods, media, and materials that align with the learning objectives and the characteristics of the learners. For example, if the learners are visual learners, you may want to use images or videos to teach vocabulary.

4. Utilize media and materials

Gather all the materials and resources that you will need to teach the vocabulary games. Make sure that they are working properly and that you have everything you need before you start teaching.

5. Require learner participation

Engage the learners in the vocabulary games by requiring their participation. This can be done through group activities, discussions, or games.

6. Evaluate and revise

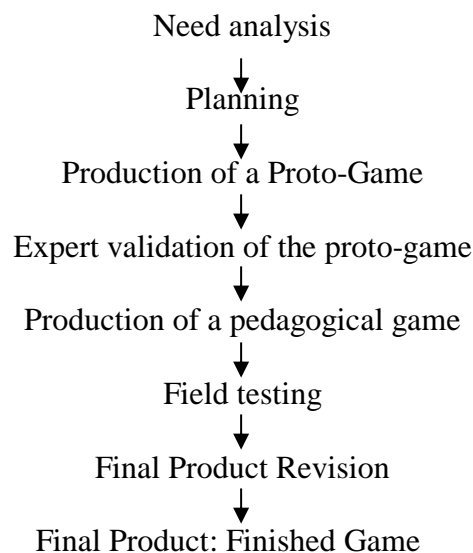
Evaluate the effectiveness of the vocabulary games and revise them

as needed. This will help you improve the games and ensure that they are meeting the learning objectives.

In addition to the ASSURE model, it is also important to adopt an evidence-based approach to vocabulary instruction and develop district-wide lists of essential words for vocabulary instruction. Finally, it is important to design elements of motivation properly to engage learners in the games by following these steps and incorporating evidence-based practices, you can design effective English vocabulary games that engage learners and help them achieve their learning objectives.

C. Stages in Developing Product

Some stages are applied in developing as well as designing the educational games, the stage is from Borg and gall's cycles. The diagram above describes the stages in developing the educational games used in this research.



D. Research Setting

1. Main Data

The main data are data relating to the comparison of the learning outcomes of class VIII students at MTS Swasta Sabilal Muhtadin Jaya Karet Kotawaringin Timur using conventional media and educational game media, which include:

- a. Data on the design of educational games for learning English vocabulary.
- b. Data on the process of implementing educational games for learning English vocabulary in grade 8 MTS Sabilal Muhtadin Kotawaringin Timur, Kalimantan Tengah
- c. Data on the students view of educational games for learning English vocabulary on the learning outcomes of 8th graders at MTS Sabilal Muhtadin, Kotawaringin Timur, Kalimantan Tengah.

2. Supporting Data

Supporting data is complementary data that supports basic data regarding the general description of the research location, including:

- a. The state of the teacher council and administrative staff.
- b. The condition of students.
- c. Condition of facilities and infrastructure.
- d. Student learning outcomes last semester.

3. Participants

The data source is the axis of the data that has been obtained, namely:

- a. Research Subjects, are samples from this study, namely all students of class VIII MTS Swasta Sabilal Muhtadin Jaya Karet Kotawaringin Timur.
- b. Informants, namely those who provide information related to research, namely school principals, teachers and administrative staff.
- c. Documentation, which is in the form of notes, data or archives related to research.

E. Data Collection Technique

1. Interview

An interview is a social situation between two people, where the psychological process involved requires both individuals to reciprocally provide various responses according to the research objectives. Interviews were conducted by two parties, namely the interviewer who asked questions and the interviewee who provided answers to the questions posed by the interviewer. Interviews in this study were conducted with 8th grade students at MTS Sabilal Muhtadin Kotawaringin Timur and English teacher at MTS Sabilal Muhtadin.

2. Observation

Observation is one of the natural data collection techniques. Observation requires researchers to make direct observations in the field

to check how the actual conditions of students are, and to apply educational games that have been made.

F. Research Instrument

1. Needs Analysis Instrument

Initially, the researcher assessed the requirements of Primary School students at MTS Sabilal Muhtadin Jaya Karet. Understanding the students' needs is crucial for developing materials that align with their educational needs, particularly in enhancing vocabulary mastery. To gain insights into the students' requirements, the researcher conducted an interview with the English teacher, aiming to comprehend the overall English teaching approach and specific practices employed for elementary school students at MTS Sabilal Muhtadin Jaya Karet. Furthermore, the researcher examined the syllabus, the course book in use, and the topics covered, ensuring that the developed material is well-suited and aligned with the existing curriculum.

The researcher will use field notes of observation and in-depth interview as research instruments. This research follows the ASSURE model of instructional design development.

Table 3.1: Need Analysis Instrument

No	Technique of Data Collection	Data Needed	Research Subject
1	Interview	The needs, wants, and the students Teachers opinion about what English Vocabulary Topic they need in learning at MTs Sabilal Muhtadin Jaya Karet	The Students and English Teacher of MTs Sabilal Muhtadin Jaya Karet

Content of the Instrument

Table 3.2: Need Analysis Interview Content

No	Technique of Data Collection	Questions
1	Interview	<ul style="list-style-type: none"> - Students opinion about the teaching and learning process in general - Students motivation and interest in learning vocabulary - Obstacle in learning vocabulary - Students needs of teaching and learning activities for a vocabulary topics

		<ul style="list-style-type: none"> - Selected topics they need in vocabulary class - Game design - Materials selection
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2. Data Collection Instruments

The data collection instrument is a tool chosen by the researcher in collecting data so that the research activity becomes systematic and easy. A researcher usually uses a good instrument and is able to take information from the object or subject under study. Instruments are used to retrieve information in the research conducted. The instrument can be made by the researcher himself or can also develop existing instruments.

A research instrument has two important requirements, namely validity and reliability. An instrument is said to be valid if the instrument can be used to measure what it wants to measure. Then, the condition that must be met by a research instrument is reliability. An instrument is said to be reliable if the instrument has consistent results in measuring the data to be measured.

The following are the research instruments used by researchers:

1. Experts Validation

Once the media production phase concludes, it undergoes validation by media and materials experts. These experts are equipped with a detailed checklist precisely crafted to evaluate various facets of the media content. This checklist serves as a

comprehensive tool enabling experts to assign scores, provide feedback, and offer suggestions to enhance the quality of the media. The assessment criteria cover a range of dimensions, encompassing elements such as the introduction, lesson structure, and content relevance for materials, while for media, aspects including design aesthetics, visual appeal, functionality, and educational utility are carefully assessed. Through this thorough evaluation process, the aim is to ensure that the produced media not only meets instructional objectives but also captivates and facilitates effective learning experiences for students.

2. Trial interview for students

Table 3.3: Trial Interview for Students

No	Technique of Data Collection	Questions
1	Interview	<ul style="list-style-type: none"> - Could you learn English vocabulary by using this vocabulary game? - Are the sounds in this game make you happy when playing this game? - Is this game easy for you to play and understand? - Is the text in this game easy for you to understand? - Is this game motivate you in learning English

		<p>Vocabulary?</p> <p>- In your opinion, how does this game motivate you in learning English Vocabulary?''.</p>
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G. Data Analysis

Data analysis is the process of organizing the data obtained by research into categories, breaking it down into units, synthesizing it, organizing it into patterns, selecting important ones to investigate, and drawing conclusions so that researchers can the process of searching and editing systematically for ease of understanding others. The data analysis technique used in this study is a descriptive analysis technique.

Sugiyono (2009) mentioned that, descriptive method is a method that serves to describe or provide an overview of the object under study through data or samples that have been collected as they are without analyzing and making conclusions that apply to the public. In other words, the analytical descriptive data analysis method focuses the researchers' attention on the problems as they were when the research was carried out. The results of the study were then processed and analyzed to obtain conclusions. Those can be explained as follows:

a) Data Reduction

The first step in analyzing qualitative data involves a process known as data reduction. This crucial step entails summarizing the data, selecting the fundamental components, and directing attention to the most significant and relevant aspects. By doing so, researchers can streamline the vast amount of information, making it more manageable and easier to interpret. This focus on the essential elements ensures that the analysis remains concentrated on the most pertinent and meaningful data.

b) Data Display

The subsequent step in data analysis is data display. This involves creating an organized, condensed presentation of information that facilitates conclusion drawing and action. By displaying the data, researchers can more easily understand and analyze the presented information. In this study, the researcher will utilize interviews and questionnaires to display the data, as these methods are commonly employed in qualitative research.

c) Conclusion Drawing

From the outset of data collection, qualitative analysis begins the process of interpreting the data identifying patterns, explanations, potential configurations, and causal relationships. Conclusions in qualitative research emerge as discoveries that address the research problem. These conclusions are typically

descriptive, detailing the subject of the study. Ultimately, this step allows the researcher to derive the findings and conclusions of the research.