CHAPTER III

RESEARCH METHODOLOGY

A. Research Design

Research and Development were utilized in this research (R&D). Research and development is a research method that is used to create specific items and evaluate their efficacy.[1] Educational Research and Development (R&D) is used to design and validate educational materials, according to Borg and Gall. The R&D cycle refers to the steps involved in this process. Which entails analyzing relevant research findings for the product to be developed, producing the product based on these findings, field testing it in the location where it will be utilized in the future, and updating it to address any flaws discovered during the field-testing stage. This cycle is continued in more rigorous R&D projects until field-test data indicates that the product satisfies its behaviorally established objectives.[2]

Development research, according to Seals and Richey, is a systematic study of the design, development, and evaluation of programs, processes, and learning outcomes that meet the criteria of validity, practicality, and effectiveness.[3] To make a good media, the researcher needs to test the effectiveness of the product being made. Therefore, research and development are longitudinal, which means long-term meaning.

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[1]Sugiono, *Metode Penelitian Pendidikan Pendekatan Kuantitatif, Kualitatif dan R&D*, (Bandung: Alfabeta, 2018), p. 407.

[2] Samsu, *Metode Penelitian; Teori Dan Aplikasi Penelitian Kualitatif, Kuantitatif, Mixed Method, Serta Research and Development*, ed. Rusmini, I. (Jambi: Pusat Studi Agama dan Kemasyarakatan (PUSAKA) Jambi, 2017). p. 173

[3] Samsu, *Metode Penelitian; Teori Dan Aplikasi Penelitian Kualitatif, Kuantitatif, Mixed Method, Serta Research and Development*, p. 174

The snakes and ladders game is a media that will be developed in this study to recount text material for grade VIII Junior High School. The methodological steps used in this study are the Borg and Gall Research and Development (R&D) model. The research aims to develop a snakes and ladders game as a teaching tool to help grade VIII students understand recount text to be more practical and exciting.

B. Model of Development

The developmental model used in this study was the developmental model proposed by Borg and Gall. Borg and Gall proposed ten phases in conducting research and development: 1) information collection, 2) planning, 3) preliminary version of a product, 4) preliminary product field note, 5) main product version, 6) preliminary field test, 7) operating product revision, 8) operational product test, 9) final product revision, and 10) dissemination and implementation. The research and development steps are shown in the following figure:

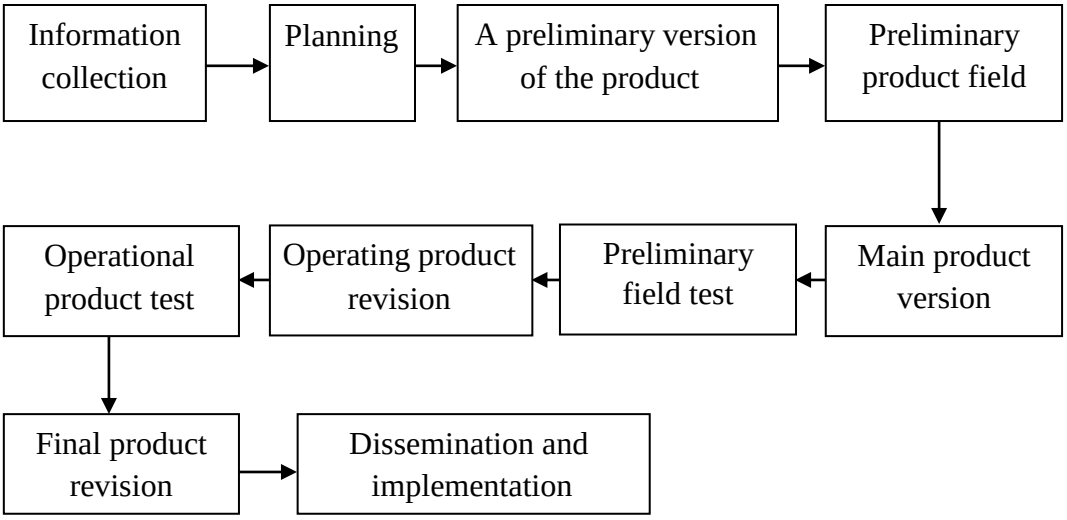

Figure 3.1: Research and Development Procedure

C. Research and Development Procedure

Borg and Gall suggest that the researcher undertake a small-scale project if the researcher plans to do a research and development project to finish a thesis or dissertation. Of the ten procedures presented by Borg and Gall, some will be reduced by the researcher. Due to the researchers' restricted time and resources, these steps have been condensed into six development steps.

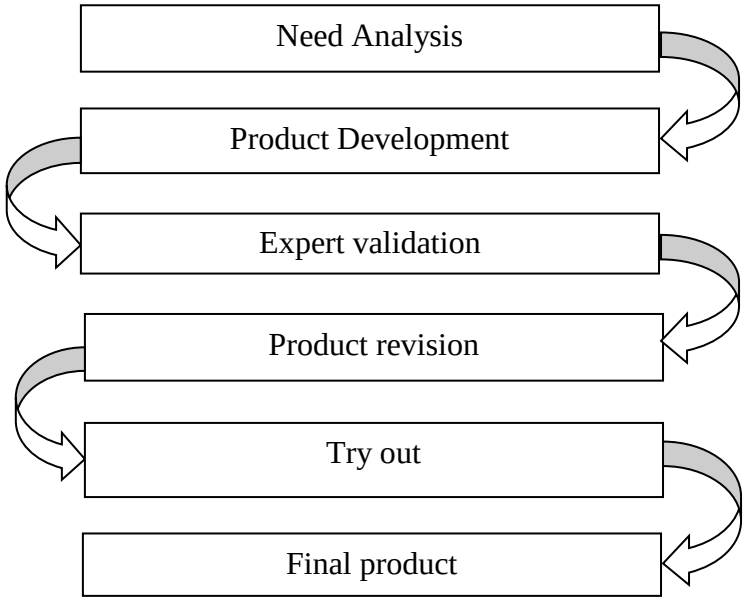

Figure 3.2: Research procedure in Developing snakes and ladders game to improve students' understanding of recount text.

1. Need Analysis

   The first step of the research needs analysis to collect information. Need analysis is conducted to find out what students need and want when they are in the classroom. The aim is to make the learning process enjoyable and the material well conveyed. The researcher used the interview to collect information about class activities. From this step, the researcher found the material included in the game media.

2. Product Development

   This step is the development of the product. In this step, the researcher prepared tools and materials to make products for teaching and learning media of snake and ladder. The result of the development of this product in the form of hardware

3. Expert Validation

   Design validation is carried out to assess the feasibility of the product. In this research, there are two expert validations, namely media expert, and material expert. Expert validation is aimed to assess the feasibility of the media being developed before the product trial is carried out. Mrs. Ila Amalia, M.Pd will carry out material validation. At the same time, Mrs. Asmayawati, M.Pd will do the media validation.

4. Product Revision

   In the revision of the product, it will be tested for validity by media and material experts. The experts considered the appropriateness of the media based on the product questionnaire. The experts are comments and suggestions were very beneficial for the product. The researchers carried out product revisions.

5. Try Out

   Try out of this product is carried out at the VIII grades students of MTs Al-Khaeriyah Pontang. There are 2 classes that are used as the subject of this research. The tryout is carried out with the stages of doing a pre-test before using the media. After using the media, the students were given a questionnaire to respond to the media.

6. Final Product

   After the product design has been evaluated by experts, the product's defects can be identified. These defects are then corrected in order to achieve a better product. After the last revision, the final product was created.

D. The Setting of Research

The research will be carried out at MTs Al-Khairiyah Pontang. It is located in Jl. Ciptayasa KM. 13 Pontang, Serang-Banten. The reason for choosing this school to be used as a research place is because researchers found several problems in the teaching and learning process of English, especially in recount text. This school does not use learning media to support the material that has been given by the teacher to students. This research and development process starts from August to November 2021.

E. The Subject of The Research

The subject of this research is class VIII C with 10 students and class VIII B with 20 students of MTs Al-Khairiyah Pontang academic year 2021/2022. In total there were 15 males and 15 females. Also in it are English material experts, media experts, and English teachers.

F. Data Instrument

Research instruments are tools that can be used to collect research data.[4] In this research, the researcher uses some of the instruments. There are observation, questionnaire, expert validation checklist, interviews, and documentation. The data were quantitative and qualitative. The observation was conducted to determine need analysis and gather information. Need analysis is carried out to determine what students need when they are in the classroom during the learning process. The questionnaire was given to students to validate the instructional design of the snake and ladders game. The interview guide was given to the English teacher to get the information needed. Expert validation is conducted to validate the concerning the media and the content of the material.

[4] Wina Sanjaya, *Penelitian Tindakan Kelas*, (Jakarta: Kencana Prenada Media Group, 2009), p. 84.

It is possible to research because this school is still implementing an offline system.

G. Data Collection Techniques

This research used some instruments to collect the data. The instrument were observation, interview, questionnaires, expert validation checklist and documentation.

1. Observation

   The observation will be carried out at MTs Al-Khaeriyah Pontang. The observations made by researchers are following the learning process from beginning to end. The researcher is directly involved in the learning process involving all students on the English material.

2. Interview

   Interviews on research and development will be conducted with the English teacher. This interview will be conducted face to face.

3. Questionnaire

   The questionnaires is a data collection technique by providing a number of statements about the snakes and ladders game. This Questionnaire were given to students to measure the instructional design of the snake and ladders game whether this media is easy to understand, enjoyable, and suitable for use by the students.

4. Expert Validation Checklist

   The validation expert was divided into three aspects, namely, media expert, material expert, and English teacher assessment. Expert validation is conducted to validate the concerning the media and the content of the material. Mrs. Ila Amalia, M.Pd will carry out material validation. Mrs. Asmayawati, M.Pd will do the media validation. Mrs. Nani Farida, S.Pd.I as the educational practitioner’s expert validator (an English teacher).

The assessment from the educators is to find out whether this product is suitable for use in the learning process or not. After the assessment of the three appraisers, the results can be seen with the revision of the product provided. When the revision has been completed, it is necessary to re-validate the media to determine whether it is feasible or not. If it is feasible, then it can be tried on students.

Table 3.1: List of Product Validation Team

No	Name	Areas of Expertise
1	Mrs. Ila Amalia, M.Pd	Material Expert
2	Mrs. Asmayawati, M.Pd	Media Expert
3	Mrs. Nani Farida, S.Pd.I	English Teacher

5. Documentation

Researchers use documentation as the end of the existing instrument. This documentation contains the photos taken during this research.

H. Data Analysis Techniques

After the data was collected, the researcher gets two kinds of data. There are qualitative and quantitative data. The qualitative data spelled out by description is the result of observation, interview, and suggestion from the expert. While the quantitative data is spelled out using the *Likert scale*, it consists of an English teacher assessment and expert validation.

Table 3.2 Assessment Score on Answer Choices

5	Very Good
4	Good
3	Fair
2	Poor
1	Very Poor

To determine the result of the percentage of the assessment score using the calculation formula obtained by the following formula.

$$\text{Ps} = \frac{S}{N} x100\%$$

Information:

Ps = Percentage

S = Number of respondents' answer in 1 item

N = The number of ideal values in the item.

Furthermore, the percentage of the analyzed data obtained is then interpreted into the feasibility category based on the following table:

Table 3.3: Feasibility criteria for percentage analysis for media and material expert validation

Feasibility Score	**Criteria**
100% Max score – 81% Max score	Excellent
80% Max score – 61% Max score	Good
60 % Max score – 41% Max score	Adequate
40 % Max score – 21% Max score	Inadequate
20%Max score – 0%	Fail