

CHAPTER III

RESEARCH METHOD

A. Research Design

This study employs a *Research and Development* (R&D) design aimed at developing *English for Specific Purposes* (ESP)-based speaking materials for eleventh-grade students of the Tourism Program at SMK Negeri 1 Bengkulu City. R&D is a systematic approach that not only focuses on data collection but also emphasizes the processes of designing, developing, and evaluating educational products in a structured manner. According to Borg & Gall (1983), this approach enables the integration of empirical findings with instructional design, ensuring that the resulting product is relevant, practical, and aligned with learners' needs. In this context, the R&D design is utilized to produce ESP-based speaking materials that support students' communicative competence in tourism-related situations.

In line with this objective, the study is designed to address three interrelated research questions. First, it seeks to identify the needs of eleventh-grade students in the Tourism Program regarding ESP-based speaking materials through a comprehensive needs analysis. Second, based on these findings, the study focuses on designing ESP-based speaking materials that are aligned with students' characteristics and the contextual demands of tourism education. Third, the developed materials are evaluated in terms of their validity through expert judgment to ensure their appropriateness in terms of content, language use, and instructional quality. Therefore, the R&D process not only results in a tangible educational product but also ensures that the

product is valid, relevant, and suitable for implementation in the teaching and learning process.

B. Steps for Developing Instructional Materials

According to Borg and Gall (1983), the Research and Development (R&D) model consists of ten main steps: (1) Research and Information Collecting, (2) Planning, (3) Development of Preliminary Product, (4) Preliminary Field Testing, (5) Main Product Revision, (6) Main Field Testing, (7) Operational Product Revision, (8) Final Product Testing, (9) Final Product Revision, and (10) Dissemination and Implementation.

Furthermore, a study conducted by Siti Kholija Sitompul, Nur Mukminatien, and Francisca Maria Ivone simplifies the R&D model into six stages, namely: (1) Needs Analysis, (2) Product Development, (3) Expert Validation, (4) Product Revision, (5) Small-Scale Try-Out, and (6) Finalisation. This modification aims to make the development process more practical while maintaining its systematic nature.

In this study, the R&D model is further adapted into four main stages: (1) Needs Analysis, (2) Product Development, (3) Expert Validation, and (4) Product Revision. This simplification is intended to focus on the most essential steps while ensuring that the development process remains structured and effective.

1. *Research and Information Collecting (Needs Analysis)*

According to Borg & Gall (1983), the first stage in the Research and Development (R&D) model is Research and Information Collecting, which focuses on gathering information as the foundation for product development. At this stage, the researcher conducts a needs analysis to identify students'

characteristics, learning problems, and the context underlying the development process. Data are collected through various techniques such as literature review, observation, interviews, and questionnaires. This stage plays a crucial role as it determines the direction and relevance of the product to ensure that it aligns with real conditions in the field.

Similarly, Sitompul et al. (2025) explain that the needs analysis stage is conducted to identify students' needs, lacks, and wants in learning, particularly in academic writing. The data are obtained through questionnaires and interviews to reveal students' difficulties, such as generating ideas, constructing sentences, and applying critical thinking. In addition, this stage also examines existing materials and teaching methods as a basis for developing more appropriate instructional materials.

Based on these perspectives, it can be concluded that needs analysis plays a significant role in ensuring that the developed materials meet students' actual needs. In this study, this stage is used to identify students' needs in ESP-based speaking skills within the tourism context, including their difficulties, learning preferences, and relevant communication situations. Therefore, the results of the needs analysis serve as the foundation for designing contextual and relevant teaching materials.

2. *Product Development*

According to Borg & Gall (1983), the Product Development stage involves designing and developing a product based on the results of the needs analysis. At this stage,

the researcher organizes the product design, determines the content, and develops systematic instructional components. The product should reflect the learning objectives, students' characteristics, and the context of use. Therefore, careful planning is required to ensure that the product is not only theoretical but also practical and applicable.

In line with this, Sitompul et al. (2025) developed learning materials based on the Genre-Based Approach, consisting of four stages: Building Knowledge of the Field, Modelling of the Text, Joint Construction of the Text, and Independent Construction of the Text. The materials are systematically arranged by considering writing theories, learning activities, and exercises that support students' idea development and critical thinking. Furthermore, the development process also considers task sequencing, material structure, and time allocation to ensure effective learning

From these explanations, it can be concluded that the product development stage is essential in producing structured and relevant teaching materials. In this study, this stage involves developing ESP-based speaking materials tailored to the tourism context. The materials are designed to reflect real communication situations, such as providing services and interacting with tourists, in order to enhance students' practical speaking skills.

3. *Expert Validation*

According to Borg & Gall (1983), the Expert Validation stage aims to evaluate the feasibility and quality of the developed product before implementation. At this stage, the

product is assessed by experts who have expertise in relevant fields, such as content, language, and instructional design. The evaluation is conducted based on specific criteria to identify the strengths and weaknesses of the product. The results of this validation serve as the basis for further improvement.

In the study conducted by Sitompul et al. (2025), the validation process involved two experts who have experience in teaching academic writing and expertise in linguistics. The experts evaluated the module based on several aspects, including learning objectives, content, language, presentation, and effectiveness. The instrument used was a questionnaire that allowed the experts to provide feedback and suggestions for improvement. This validation process is essential for identifying aspects that need refinement.

Therefore, it can be concluded that expert validation plays a crucial role in ensuring the quality of teaching materials before implementation. In this study, this stage is conducted to ensure that the ESP-based speaking materials meet the standards of content, language, and presentation. The feedback from experts is used to revise and improve the product to make it more effective.

4. *Product Revision*

According to Borg & Gall (1983), the Product Revision stage involves refining the product based on the evaluation results and feedback from experts. At this stage, the researcher revises the identified weaknesses to improve the overall quality of the product. The revisions may include improvements in content, language, design, and learning activities. The main goal

of this stage is to produce a final product that is more effective, accurate, and ready for implementation.

Sitompul et al. (2025) also emphasize that product revision is conducted by considering the suggestions and feedback provided by experts during the validation process. The improvements include refining the materials, adjusting learning activities, and enhancing the structure and presentation of the module. This process aims to increase the quality of the product so that it becomes more user-friendly and effective in achieving learning objectives.

Based on these explanations, it can be concluded that product revision is a crucial step in perfecting the teaching materials before implementation. In this study, the Product Revision stage is conducted by improving the ESP-based speaking materials based on expert feedback. As a result, the final product is expected to be more suitable for students' needs, more engaging, and more effective in improving students' speaking skills in the tourism context.

C. Respondents

Respondents are the primary source of data in this study and are selected based on their relevance to the research objectives. According to Sugiyono, respondents are individuals who provide information through research instruments such as questionnaires, tests, or interviews. In this study, the term respondents is used instead of population and sample to emphasize the active role of participants as data providers. Respondents are not merely viewed as a number of individuals, but as key contributors to the quality and validity of the data collected. Therefore, the selection of respondents must be

conducted carefully to ensure that the data obtained are relevant and reliable.

The respondents in this study consist of all eleventh-grade students of the Tourism Services Program at SMKN 1 Bengkulu City. Based on the collected data, the total number of respondents is 63 students, including 25 male students and 38 female students. These respondents are drawn from two classes, namely XI ULP 1, which consists of 31 students, and XI ULP 2, which consists of 32 students. All students are selected as respondents because they possess characteristics that align with the objectives of the study. Thus, they are considered capable of providing relevant and representative data to support the research analysis comprehensively.

In this study, the technique used to determine the respondents is total sampling. According to Sugiyono (2017), total sampling is a sampling technique in which all members of the population are selected as respondents, particularly when the population size is relatively small. This technique allows the researcher to include all individuals in the data collection process, thereby minimizing sampling bias. The use of total sampling aims to enhance the accuracy and representativeness of the data obtained. By involving all members of the population, the findings are expected to reflect the actual condition of the research subjects more accurately.

By applying the total sampling technique, all 63 eleventh-grade students of the Tourism Services Program at SMKN 1 Bengkulu City are designated as the respondents of this study. These respondents are divided into two classes, namely XI ULP 1 with 31 students and XI ULP 2 with 32 students, consisting of 25 male and 38 female students. The inclusion of all students as respondents aims to obtain

comprehensive and in-depth data. Therefore, the results of this study are expected to provide an accurate representation of the phenomenon under investigation and produce findings that are valid, reliable, and academically accountable.

D. Research Instrument

This study employs a mixed-methods approach, combining qualitative and quantitative methods, to identify learners' needs and design ESP-based speaking materials grounded in local tourism for the Tourism Program at the eleventh-grade level. Four main types of research instruments were utilized in this study, namely questionnaires, interviews, text analysis, and expert validation sheets.

A qualitative approach was applied in the initial stage of the research to explore in depth the needs of students and teachers in learning speaking skills, particularly in the context of local tourism. Qualitative data were obtained through semi-structured interviews involving both teachers and students, as well as text analysis of teaching materials used in the classroom, including textbooks, dialogues, and tourism-related content. Through this approach, the researcher was able to gain a comprehensive understanding of the learning context, including challenges, expectations, and the relevance of local tourism content in speaking instruction. Text analysis also helped identify the strengths and weaknesses of existing materials as a basis for developing more contextual and applicable teaching materials.

Meanwhile, a quantitative approach was used to support the needs analysis and to assess the validity of the developed materials. Quantitative data were collected through questionnaires distributed to teachers, students, and students' parents to identify their needs,

preferences, and difficulties in learning speaking, particularly in tourism-related contexts. In addition, expert validation sheets were used to evaluate the quality, relevance, and appropriateness of the developed materials. The data obtained were analyzed using descriptive statistical techniques to determine trends and levels of validity. Thus, the integration of qualitative and quantitative data strengthens the foundation for developing speaking materials that are both relevant to learners' needs and pedagogically sound.

1. *Questionnaire*

The quantitative approach in this study was conducted through the distribution of questionnaires to 63 students, 63 parents, and 1 teacher. These questionnaires were used to identify needs, preferences, and difficulties in learning English speaking skills, particularly in the context of tourism. The student questionnaire focused on learning experiences, difficulties, and required language skills; the teacher questionnaire explored the suitability of materials, methods, and instructional media; while the parents' questionnaire aimed to examine the level of family involvement in supporting students' learning. All instruments employed a four-point Likert scale consisting of Strongly Agree (4), Agree (3), Disagree (2), and Strongly Disagree (1) to generate systematic and measurable data.

The questionnaires in this study did not undergo re-validation by experts because they were adapted from credible and relevant sources. The student questionnaire was adapted from the survey instrument development guidelines proposed by Watanapokakul (2023), the teacher questionnaire was based

on evaluation instrument principles by Hamed Taherdoost (2023), and the parents' questionnaire was adapted from family involvement instruments developed by Drakenberg et al. (2023) and supported by the framework proposed by Mocho et al. (2025). Therefore, the instruments are considered to have clear indicators aligned with the research objectives and are valid for identifying learning needs.

In addition, the detailed blueprints and complete forms of the questionnaires are provided in the appendices to support transparency and clarity of the instruments used. The blueprint of the student questionnaire can be seen in Appendix 7 and the complete student questionnaire is presented in Appendix 8. Similarly, the blueprint of the teacher questionnaire can be found in Appendix 9 while the full version of the teacher questionnaire is available in Appendix 10. Furthermore, the blueprint of the parents' questionnaire is provided in Appendix 11 and the complete parents' questionnaire can be seen in Appendix 12.

2. Interview

The interviews in this study were conducted to obtain in-depth qualitative data regarding the needs of speaking materials in the tourism context. The participants consisted of students from class XI ULP 1 and XI ULP 2, as well as one Guiding subject teacher at SMK Negeri 1 Kota Bengkulu. Semi-structured interviews were employed to allow the researcher to explore participants' responses flexibly while remaining aligned with the research objectives. Through these interviews, detailed information was gathered about students' learning experiences,

difficulties in speaking, and their expectations toward ESP-based speaking materials.

In addition, the teacher interview aimed to collect data related to teaching experiences, instructional strategies, needs for English language development, as well as classroom challenges and the suitability of existing materials. The interview instruments in this study did not undergo re-validation because they were adapted from the semi-structured interview technique proposed by Dursun (2023) and the ESP needs analysis guidelines developed by Cowling (2023), which emphasize that semi-structured interviews are effective for exploring contextual data and communication needs in depth.

Furthermore, the detailed blueprints and complete interview guidelines are provided in the appendices to ensure transparency and clarity of the instruments used. The blueprint of the student interview can be seen in Appendix 15 and the complete student interview guidelines are presented in Appendix 16. Similarly, the blueprint of the teacher interview can be found in Appendix 13 while the full version of the teacher interview guidelines is available in Appendix 14.

3. *Text Studies Analysis*

Text analysis in this study was conducted to examine in depth the teaching materials used in the learning process, including textbooks, teaching modules, and the school curriculum, particularly in the tourism field. The purpose of this analysis was to identify the suitability of content, material organization, and language use in relation to the needs of ESP-based speaking instruction. Through the analysis of textbooks

and teaching modules, the researcher was able to evaluate the extent to which the existing materials accommodate local tourism contexts and support the development of students' communication skills. In addition, curriculum analysis was carried out to ensure that the developed materials are aligned with learning objectives, competency standards, and educational goals set by the school.

The text analysis instrument in this study did not undergo a re-validation stage, as it follows the principles of document analysis in educational research, which emphasize systematic examination of relevant written sources. The analysis focused on key aspects such as learning objectives, types of texts, learning activities, and language use within tourism contexts. Therefore, text analysis provides a strong foundation for designing teaching materials that are not only relevant to students' needs but also aligned with curriculum demands and classroom practices.

Furthermore, the detailed aspects of the analysis and the document sources are provided in the appendices to ensure transparency of the research. The list of textbooks can be found in Appendix 17 the teaching modules in Appendix 18 and the tourism curriculum documents in Appendix 19

4. *Expert Validation Sheet*

This study involved validation by a language expert, a material expert, and a learning expert to ensure the feasibility and quality of the developed instructional materials. Each expert evaluated specific aspects of the materials to ensure that the ESP-based speaking materials were relevant to professional

communication needs in the tourism sector. The experts' feedback was used as a basis for revisions aimed at improving clarity, accuracy, and suitability to students' learning needs.

The language aspects of the ESP materials were evaluated using a Language Expert Validation Sheet. The validation employed 25 indicators covering language clarity, grammatical accuracy, punctuation, terminology consistency, and suitability to students' competency levels. The feedback focused on improving text readability, linguistic effectiveness, and enhancing students' comprehension and motivation in ESP-based speaking instruction.

The quality and relevance of the instructional content were assessed using a Material Expert Validation Sheet. This validation applied 25 indicators, including topic relevance, accuracy of concepts, suitability of materials with learning objectives, and alignment with students' needs and competencies in the tourism context. This process ensured that the developed materials were accurate, meaningful, and appropriate for classroom implementation.

Furthermore, the feasibility of the learning design was evaluated using a Learning Expert Validation Sheet. This validation also used 25 indicators, covering aspects such as instructional design, clarity of learning objectives, organization of activities, suitability of methods and strategies, and alignment with the Merdeka Curriculum. This validation ensured that the materials were pedagogically sound, systematic, and supportive of effective learning processes.

Furthermore, the detailed validation instruments and assessment criteria are provided in the appendices to ensure transparency and clarity of the evaluation process. The Language Expert Validation Sheet can be found in Appendix 20, the Material Expert Validation Sheet in Appendix 22 and the Learning Expert Validation Sheet in Appendix 21

5. Documentation

Photographs, screenshots, and records of classroom activities, interviews, and expert validations are all included in the documentation appendix, which provides thorough proof of the study process. It depicts the creation and application of ESP-based speaking resources for tourism students, documenting exchanges between educators, learners, and professionals. The study's conclusions are supported both textually and visually in the appendix, which also shows procedural accuracy, data authenticity, and instructional efficacy. These documents guarantee openness, enabling readers to follow every phase of the study and comprehend the validation, application, and evaluation of the resources in the educational setting. (Appendix 38).

E. Data Collecting Technique

The data collection in this study began with a preliminary observation at SMK Negeri 1 Bengkulu, particularly in the Tourism Program, to understand the existing condition of ESP-based speaking instruction. The researcher then designed appropriate instruments to comprehensively identify students' needs. This stage aimed to obtain an initial overview of the gap between classroom learning and the demands of the tourism industry. Therefore, the data collection

process was carried out in a systematic and directed manner as a foundation for developing more relevant, contextual, and applicable teaching materials

Subsequently, the researcher distributed questionnaires to students, parents, and a teacher to gather data on needs, difficulties, and preferences in learning speaking. This process was conducted directly, allowing respondents sufficient time to answer independently. The results indicated that students need more speaking practice, vocabulary improvement, and engaging learning methods aligned with real-world contexts. These findings highlight the importance of more practical and needs-oriented instruction that reflects authentic communication demands in the tourism field.

After that, semi-structured interviews were conducted with students and a teacher to obtain more in-depth information about their speaking learning experiences. The interviews were carried out face-to-face and documented systematically. The findings revealed that students still face limitations in vocabulary, lack confidence, and have minimal opportunities for real-life speaking practice. In addition, the teacher emphasized that the existing materials are still largely theoretical, which limits students' readiness to communicate effectively in professional contexts.

The next stage involved text analysis of textbooks, teaching modules, and curriculum documents used in the learning process. The researcher examined the relevance of these materials to ESP needs in the tourism field. The results showed that the materials are still predominantly theoretical and do not fully reflect real communication situations in the workplace. This indicates a gap between instructional

content and practical needs, suggesting the necessity for more contextual and application-oriented materials.

Finally, the researcher conducted expert validation of the developed teaching materials by involving a language expert, a material expert, and a learning expert. This process aimed to evaluate the feasibility and quality of the materials before implementation. The validation results indicated that the materials are generally appropriate and usable, although some revisions are still needed for improvement. The experts' feedback was then used as the basis for refining the materials to ensure they are more effective and aligned with students' needs.

F. Data Analysis

The collected data were analyzed using a systematic and structured method, which included organizing, processing, and interpreting the data to produce relevant findings that support the objectives and research questions of this study

1. Quantitative Data

Descriptive quantitative techniques were used to evaluate the collected data in order to systematically summarize, interpret, and present the information. According to Craig Starbuck (2023), descriptive statistics are used to briefly describe and organize quantitative data without conducting hypothesis testing or drawing inferential conclusions. This method provides an overview of data trends, distributions, and patterns emerging from the research findings.

In this study, questionnaires were administered to students, parents, and teachers to identify their needs, perspectives, and expectations regarding the development of

English for Specific Purposes (ESP) speaking materials in the Tourism Program. The data obtained from these three groups of respondents were analyzed to determine their tendencies in relation to English learning needs within the tourism context.

Descriptive statistical analysis may involve several measures, such as mean (average score), median (middle value), mode (most frequently occurring response), standard deviation (data dispersion), and percentage (proportion of responses). The mean is used to determine the average response, the median identifies the central value in an ordered dataset, the mode shows the most dominant response, and the standard deviation describes the variability of responses among participants. However, in this study, the data analysis primarily used percentage analysis to simplify interpretation. Percentage was applied to show the proportion of respondents' answers for each questionnaire item, making the findings easier to interpret, clearly presented, and more effective in answering the research questions.

The formula of Percentage (%) :

$$P = \frac{f}{N} \times 100\%$$

Where :

- f = Frequency of respondent in a specific category
- N = total respondents

The results of the percentage calculation were then interpreted to

describe the level of needs, preferences, and expectations of the respondents. This interpretation served as a basis for

identifying dominant trends in the data and supported the formulation of conclusions related to the development of ESP-based speaking materials for Tourism Program students.

2. *Qualitative Data*

This study employed a qualitative method for data analysis. By grouping data into particular categories or codes, qualitative analysis is a methodical procedure that aims to describe, categorize, and understand data in textual or visual form (Creswell, 2010). Through six primary processes, this approach aids researchers in developing a thorough knowledge of the meaning of data, emergent patterns, and links between categories within the research environment.

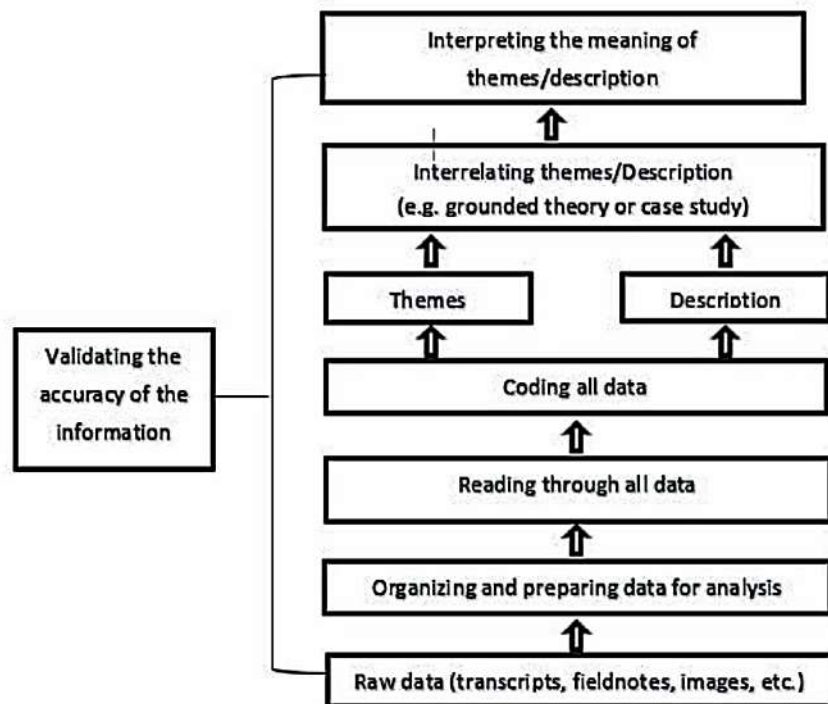


Figure 3. 1 Six-Step Model of Qualitative Data Analysis by Creswell

Creswell's (2010) Six-Step Model of Qualitative Data Analysis, which consists of a number of methodical steps intended to arrange, evaluate, and derive significant conclusions from the gathered qualitative data, was followed in this study's data analysis procedure.

a. Preparing and Organizing Data for Analysis

The first step entails typing observation notes, digitally categorizing all data, and verbatim transcription of interviews with students, instructors, and tourism professionals. To make analysis easier, data are grouped by source. To avoid mistakes that could compromise validity, the researcher makes sure everything is correct and comprehensive. This preparation ensures that the material is prepared, organized methodically, and trustworthy for further qualitative examination.

b. Reading All Data

In order to comprehend context, significance, and overarching messages, the researcher carefully studies every piece of information after preparing the data. This phase entails getting acquainted, underlining important details, and taking thoughtful notes on first impressions and new concepts. Comprehensive reading lets the researcher uncover patterns and discrepancies between participants' perspectives before going to extensive coding.

c. Coding the Data

Data must be divided into meaningful units at this critical stage, and pertinent segments must be assigned codes. A student's comment about having trouble speaking English at work, for instance, would be categorized as "speaking challenge

in workplace." Patterns, categories, and important meanings are found through coding. It guides additional analysis by organizing unstructured data into relevant information.

d. Developing Descriptions and Themes

Similar codes are then placed into more expansive categories to create themes and descriptions. Themes convey more general concepts, whereas descriptions clarify context. For instance, the topic "students' barriers in speaking" may be formed by codes like "lack of vocabulary," "anxiety," and "fear of mistakes." The heart of the research findings and the connections between new concepts are revealed in this step.

e. Presenting Descriptions and Themes in Narrative

The findings are arranged by the researcher into a methodical qualitative story. As empirical evidence, it contains in-depth explanations, key topics, and firsthand comments from participants. Relationships can be shown using visual aids like tables, charts, or conceptual models. By connecting empirical facts with the researcher's interpretation for a thorough understanding, this presentation guarantees openness, academic accountability, and clarity.

f. Interpreting the Data

The last step involves interpreting the data and making connections between the results and theory, previous research, research questions, and real-world field experience. Deeper meanings, ramifications for teaching English in the tourism industry, and conceptual conclusions are all part of it. Interpretation offers helpful suggestions that advance language instruction and understanding about tourism.