DESIGNING ENGLISH LANGUAGE TEACHING MATERIAL FOR PHYSICS EDUCATION DEPARTMENT STUDENTS AT UIN ALAUDDIN MAKASSAR: ELECTRICITY

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ABSTRACT

This study aims at designing English language teaching materials in a form of a module that focused on the topic of "Electricity. This research utilized the ADDIE Model which stands for five stages of material development i.e., analysis, design, development, implementation, and evaluation. The evaluation checklist employed as the instrument, and the data collection methods covered processes including designing the syllabus, developing the ELT material, and evaluating the material by the researcher, the consultant, and the validators. Based on the results of the evaluation checklist, it was clear that the syllabus had been created and that each module's content, which is in the form of printed module, had been thoughtfully designed to meet the needs of the students. The product was specifically suggested for use by lecturers and students to perform English-learning activities.

Keyword: ELT, Material Design, ADDIE Model, Physics Education

1) INTRODUCTION

The term where the material of English teaching and the range of possible materials and topics to be included in the language learning is reduced, widely known as English for a specific purpose (ESP) (Basturkmen, 2010). English for specific purposes (ESP) is distinct from General English (GE) in the matter of the learners and their purposes of learning. The material which is given to the students is customized and specified with the learning purposes and the need of the students. It must be authentic, realistic, and specific to the requirements and the target of learning (Rahman, 2015; Salmani-nodoushan, 2020). As Hutchison (in Rao, 2020) also stated the difference between General English (GE) and English for Specific Purposes is not in a matter of principle but more on the practical side. In General English (GE) students are taught material related to grammar rules, sentences articulation, Phonetics, and more. Therefore, in the English language for specific purposes the materials

tend to focus on various professional/work-related social and other – requirements of the student.

Moreover, as the sub-discipline of ESP, EAP –English for Academic Purposes is more focused on the academic concentration. It covers the language and related practices that individuals can use in their studies and work at a higher educational level where the goal of this course is to familiarize them with institutional and disciplinary practices (Rao, 2020). Therefore, the lecturer must recognize that non-English Department students should be provided with English abilities that will enable them to participate in any activity as any higher education students do (Yundayani, 2017). Thus, the English material needs to be made related to that matter.

Instructional material is the teaching materials and all of the resources that are used by the teacher or lecturer (Chukwu et al., 2016). It is a tool that is used in teaching to make the presented subject more understandable to achieve an effective learning process. This instructional material is used in every subject as well as English and can be presented in the form of textbooks, learning modules, worksheets, handouts, articles, newspapers, comics, and posters (Yaumi, 2018). The module is an instructional material that contains summaries of learning material, practices and examines how students acquire knowledge (Chantarasombat & Rooyuenyong, 2020). It is used to facilitate, motivate and improve the process of teaching and learning to to achieve successful and effective learning. Students can also use the module for their self-learning activities to keep the pace of the learning. Thus, a module can be one kind of instructional material that can be used in the EAP learning class.

Meanwhile in practice, according to the previous observation conducted by Rukmana (2021), the ESP-related instructional materials for Physics Education students' at UIN Alauddin Makassar have not yet been implemented in their English subject. She found that the lecturer does not have a definite or permanent semester learning plan and teaches English without considering the students' needs. Students just learn about General English because they were only taught part of speech-related vocabularies i.e., verbs and adjectives. Therefore, she conducted a need analysis to determine what students require to learn English for a certain purpose. Based on the results of the need analysis, the researcher aims to design syllabus and develop instructional materials for Physics Education students related to the topic of

"Electricity" and with considering all of the components of students' target needs based on the need analysis results.

Consequently, using the Analysis, Design, Development, Implementation, and Evaluation (ADDIE) Model, the syllabus design, and material development will be developed into a module that suits the level of higher education or university students. This module hopefully will help the students of Physics Education in fulfilling their needs in learning English, and sharpen their language skills as well as, in the matter of academic purpose, completing their study which is related to the academic tasks and assignments.

2) METHOD

In this research, the researcher employed the Research and Development (R&D) method. The R&D cycle refers to the steps of this process, which include applying research findings to the product to be developed, developing the product based on the findings, testing it in the setting where it will be used in the future, and revising it to address any flaws discovered during the field-testing stage (Githa, 2020). Moreover, the research development model that was applied in this research is the ADDIE model, which stands for Analysis, Design, Development, Implementation, Evaluation Model. The ADDIE Model is one of the most often used models in instructional design as a guide for creating effective designs. This model is a method for instructional designers, content developers, and even teachers to use.

The syllabus design and material development will be constructed into 12 different topics of Physics subject. These topics are Gravitation, Electricity, Kinematic, Temperature, Magnet, Force, Equilibrium, Mechanic Quantum, Rotation, Relativity, Optics, and Gases. These topics were chosen based on the result of Rukmana's (2021) research where she conducted a need analysis of the English for Physics Education Department students at UIN Alauddin Makassar. This research focused on the syllabus design and material development in the form of a module for one particular topic i.e "Electricity". The module was made by integrating the students' desired language component i.e., speaking, reading, vocabulary, listening, and writing. The researcher will design and develop instructional material using ADDIE Model. However, considering the limited time and the currently adapted curriculum policy of UIN Alauddin Makassar where English is no longer taught as a single subject, then the researcher did not conduct the implementation phase. Consequently, this research will be limited to the Designing, Developing, and Evaluation Process of the Model.

Moreover, there are two main sources of this research. The sources are documents i.e., the result of the need analysis from Rukmana's (2021) research, and the validators i.e., the validators who evaluated the material were from the English Education Department lecturers. There were two validators who evaluated the validity of the product/material.

The instrument that was used in this research was evaluation checklist. The evaluation checklist is used to validate the syllabus and material by the validators. The product, module of English material was presented to the validators. This instrument was used at the evaluation phase where the validator assessed, validated, and examined the validity of the product and the needs of the students.

3) RESULTS

Result of Analysis

The results of need analysis were obtained from document source. Moreover, it was then analyzed to create learning outcomes and indicators to design syllabus and module. The topic "Electricity" was obtained from the inventory need of the target need analysis result in the component "want" and sub-component "topics". It lies in the sixth place with average score 3,35. The English skills that were being included in the material were integrated reading skills, writing skills, speaking skills, and listening skills. Those skills were obtained from the inventory need of the target need analysis result in the component "necessities" and sub-component "language component" (Rukmana, 2021).

Figure 1. Analysis Result

skills	Need Analysis Result			Learning Outcomes	The Indicator Designed
	Target Needs/ Learning Needs		Average Score		
Reading	Necessities	Able to guess the meaning of a word from a reading English text is the first priority	3.14	(3) Students are able to discover lots of new vocabularies contained in a written passage in English related to the topic of Electricity in Physics.	(3) Students are able to discover new vocabulary related to the topic of electricity
		Able to understand all types of reading is the second priority	3.06	(1) Students are able to deeply comprehend the primary concept/ main idea of a written passage in English related to the topic of Electricity in Physics	(1) Students are able to understand the purposes and main idea of a reading text or a passage related to the topic of electricity
		Able to find keywords and main ideas through scanning and skimming is the third priority	3.02	(2) Students are able to correctly construct answers to the questions related to the paragraph.	(2) Students are able to find keywords in the main idea
					(4) Students are able to answer questions related to the passage

	Learning Problem	Lack of vocabulary	2.8	(3) Students are able to discover lots of new vocabularies contained in a written passage in English related to the topic of Electricity in Physics.	(3) Students are able to discover new vocabulary related to the topic of electricity
	Learning Style	Learning English through reading while taking notes	3.16	(2) Students are able to correctly construct answers to the questions related to the paragraph.	(4) Students are able to answer questions related to the passage
Speaking		Vocabularies is the first priority	3.17	Students are able to practice speaking about the topic of electricity.	(1) Summarize a passage.
					(3) Interpret monologue
		Pronunciation is the second priority	3.16		(2) Practice giving information in oral form.
	Learning Problem	Difficulty hearing and	2.41	Students are able to practice speaking	(3) Interpret monologue
		capturing meaning in English conversation		about the topic of electricity.	
		Difficulty speaking in English	2.4		(2) Practice giving information in oral form.
Writing	Necessities	Able to write with cohesive and coherent paragraphs is the first priority	3.02	(1) Students are able to practice writing a summary of a written English text related to the topic of Electricity in Physics.	(1) Write a brief summary of a passage using their own words.
		Able to organize the paragraph correctly is the second priority	2.95	(2) Students are able to rearrange disordered words into correct sentences	(2) Organize words into a correct sentence.
	Learning Problem	Difficulty writing text / sentences in	2.31	(1) Students are able to practice writing a summary of a written English text related to the topic of Electricity in Physics.	(1) Write a brief summary of a passage using their own words.
Listening	Necessities	Able to identify the main idea from various types of listening material is the first priority	3.15	Students are able to comprehend the aims or points of a passage in the form of audio about the topic related to Electricity in Physics.	(1) Comprehend the purpose of a passage in the form of an audio
		Able to understand listening material is the second priority	3.09		(2) Select the correct answer to a series of multiple-choice questions.
	Learning Style	Learning English through audio	3.11	Students are able to comprehend the aims or points of a passage in the form of audio about the topic related to Electricity in Physics.	(1) Comprehend the purpose of a passage in the form of an audio

Result of Design

The syllabus was designed based on Nunan's (1988) syllabus designing process which consists of three processes i.e., formulation of goals based on the need analysis, selection and grading of content, and selection and grading of learning tasks. Thus, the overall process outlined as following:

Formulation of Goals Based on The Need Analysis

Goals also known as learning outcomes, according to Nunan et al., (1988) They could be talking about the learner's progress in their cognitive and emotional capacities, what the teacher wants students to learn in the classroom, what the teacher wants the students to accomplish in the classroom, as well as the practical communication activities that students should be able to complete after teaching. Therefore, the formulation of goals, known as learning outcomes, in the classroom needs to be in accordance with the data provided by the previously conducted need analysis.

In formulating the learning outcomes, the researchers discovered which learning materials and skills the students require and which they lack at this stage. As well as deciding whether the purpose of research instrument outcomes was appropriate for their needs. This course was designed to help students master and use English abilities effectively in their everyday lives. Students' abilities in speaking, listening, writing, and reading are intended to increase as a result of the information presented.

From the learning outcomes, the indicator was designed. The indicator is a guide or information that is used as a standard for the development and mastery of students. It is a series of knowledge, abilities, and attitudes to be mastered by the students in their learning path. The indicators offered in this syllabus were produced based on the students' needs.

Selection and Grading of Content

The selection and grading of the content in this syllabus are aims to prepare the knowledge and skills necessary to evaluate and critique the content selection and grading in the syllabuses (Nunan et al., 1988). Based on the learning outcomes as well as related to the need analysis, the content of this syllabus is organized based on the model of skill-based syllabus.

Selection and Grading of Learning Tasks

The last process is to analyze various kinds of tasks or activity that included in the syllabus (Nunan et al., 1988). Therefore, the kind of activities constructed in this syllabus were all related to the learning outcomes and skills that was designed in the previous steps.

a) Activity

In this syllabus, activity plays a role as a developing material. The activity is the form of how the implementation process of material in the classroom and based on the students' needs.

Some of the activities that are included in the syllabus for example are: Learning through video/audio, learning through reading, and others.

b) Evaluation

Evaluation is used to acquire information during the process of identifying objectives, preparing and giving tests, adopting, changing materials, and instructing. In this syllabus design, students' knowledge of the material they learned is assessed utilizing a written, oral test, and response questions.

Result of Development

Hutchison and Waters (1987) stated that there are three ways in constructing material in development phase i.e., selecting from existing material, writing your own material, and modifying existing materials. Therefore, the following are the process of designing the prototype material 1.

Selecting from Existing Material

In this step, the researcher used some existing material in the field of Physics related to the topic of electricity. These materials used by the researcher were adopted from commercial Physics E-books, YouTube videos, and articles from internet. Despite the large number of materials that were provided, the researcher chooses the appropriate materials to be added to the module.

Writing Your Own Material

The researcher started by constructing some objectives based on the learning outcomes and indicators that has been designed in the syllabus. Then constructing the contents i.e., exercises that is included in the module.

Modifying Existing Materials

In this step, the module was constructed by gathering the material provided and designed in the previous steps. Therefore, the gave some interesting touch such as illustration, fancy and bright colors, as well as design.

Result of Evaluation

The material developed need to include three main pedagogical procedures to create learning opportunities. Those pedagogical procedures are listed as follows:

Providing Language Skill

The set of activities or exercises that is included in the ELT Module must include some English skill ability exercises. In order to increase students' English ability, the researcher prepared some activities in the module which consists the reading, writing, speaking and listening skill.

Giving Opportunities to Use Integrated Skill

There are also several chances given to the students in the activity of the module which allows them to apply integrated skills. These activities such as intensive reading integrated with monologue speaking in the speaking skill activity, and intensive reading integrated with summarizing in the writing skill activity.

The integration of potential functional and social interactive activity are also included in the module. Functional activities include answering questions, intensive reading, speaking skill and writing skill, while social interactive activity includes the skills application in the module that demand the students to interact with each other as well as the lecturer.

Reviewing Learning Outcomes

The reviewing process of learning outcomes is carried by the tasks to examine the students' material acquisition in the learning process. These exercises or tasks is provided in the module to let the students express their understanding about specific topics.

Based on the ADDIE model, the last phase from overall phases that must be conducted in developing product is the phase of evaluation. The product of this research which are the syllabus as well as the module are being evaluated in as much as to check the suitability or validity of the product with the students' need. Moreover, in this phase, not only the product that is being evaluated but also the overall process of the research and product development. The researcher conducted the evaluation in three kinds of evaluation, i.e., self-evaluation and peer evaluation which is conducted in the designing phase, as well as validators evaluation which is the last phase to be conducted.

a) Self-Evaluation

In the designing phase, the researcher conducted some steps which included the process of selecting, changing, designing and developing materials based on the theory and knowledge of her. After that, the researcher conducted review in her own. Therefore, this process is called

self- evaluation of the researcher. Self-evaluation is the type of evaluation where the syllabus and prototype material 1 was being evaluated by the researcher.

b) Peer Evaluation

Aside from self-evaluation, peer evaluation was also conducted in the designing phase. This was done by the two consultants of this research. There are no research instruments used in this phase, besides the suggestions, comments and critiques which were given mostly in the oral form are accepted. The two consultants of the research suggested the following points to be revised

1) The Learning outcomes of the syllabus and module must be made based on the Bloom's Taxonomy operational verbs.
2) The module needs to include the Quranic verse to integrate Islamic value to the teaching and learning material.
3) The vocabulary that are listed need to provide some examples of its usages in a conversational situation.
4) The materials must be made in accordance with the syllabus and they must be adjusted based on the suggestions and critiques from the validators of the materials.

Furthermore, the researcher partners this research i.e., the researchers who were conducting the same research in the topic of equilibrium, optics and magnet, are also took part in giving evaluations of the result of this designing phase. They suggest that the module should be made in interesting design that will attract the learners, the syllabus components which is the learning outcomes must be made using the Bloom's taxonomy examples of operational verbs, which they acquired this suggestion also from their consultants, and the module must include cover of each particular unit.

c) Validators Evaluation

Integrated syllabus and prototype module material were the two products in this study that were reviewed by validators. The validators for this syllabus are two lecturers from English Education Department who are qualified in the field of English Language Teaching (ELT). therefore, the evaluation phase is one of the essential requirements in constructing a module. Through validators' evaluation which were carried out with the aim of ascertain whether the product is appropriate to be used in the classroom or not. The course content, learning outcomes,

indication, skill, activity, evaluation, and time allocation are just a few of the components included in the evaluation checklist of the syllabus. The organization and content of the module are included in the evaluation checklist of the English module material.

The score resulted from the calculation using this formula determined the score range of the material validity. The preceding table shows the result of evaluation conducted by the two validators. In the table, it is shown that the components which are included in the syllabus i.e., course content, learning outcomes, activity, evaluation and time allocation obtained the average score of 4.5. This score is described as a "very good" score and as the result of the score, there is no revision need to be done in the part of syllabus.

1) The result of Module Evaluation

There are two aspects to be evaluated in the module, i.e., the organization and the content of the module. In the matter of evaluating the organization of a module some criteria are also provided to be checked. Those criteria include cover, design, title, layout, font, concept maps, learning outcomes, learning guides, material organization, exercises, task, summary, as well as glossaries. Hereinafter, the result of the evaluation from the two validators ranged from the average score of 4 up to 5. The scores are described as a good and very good score and as a result, no revision need to be done in the matter of structure of the module. It sent us to the conclusion that the structure of the module is well-designed, good enough and it is suitable to be used.

The second aspect to be evaluated in the module is the content of the module. In the matter of evaluating the organization of a module, it consists of several components to be evaluated which are the topics, content of the materials, example and non-example, and language. The total average score of content module evaluation is 4.35, in particular it consisted of the score range from 2.5 to 5. Thus, in the matter of qualitative description, this score describes as a very good score and there is no revision need to be done as a whole.

In particular, in the component of topic, it has an average between 4.5 to 5, which indicates the two validators agree that the topic development presented in the module is suitable and well-developed and there is no need for revision. Moreover, as for the component of content of the material and language, the developed language teaching material has the total average score of 4.5 which indicates it already suits the criteria of a good and qualified module to be used in the English for physics education classrooms. Hereinafter, for the Example and Non-

Example component, it also has the total average score of 3.9 which indicates that the module is already appropriate to be used. However, there are two criteria that obtain a bad result which are related to the analysis of example and non-example aspect of the module, therefore, further revision needed to be done in this aspect because they obtain the score under 2.61. Nevertheless, the overall total average score of the evaluation shows that the material designed is appropriate enough and valid to be used and applied for the teaching and learning English activities of Physics Education Department Students' classroom.

Moreover, in the matter of suggestions from the two validators, there are some suggestions for the module that has been done which are:

a. The first validator suggested to add answer key; spelling in glossary; grammar focus; and
b. Scoring rubric.
c. The second validator suggested to add cover; change the font style to "Helvetica"; make the conceptual framework in a landscape mode; use bright colour; add some attractive visuals; as well as put the word class in glossary.

Therefore, after going through several times of revision and improvement as well as the from the overall calculation of the evaluation checklist's score, the designed English Language Teaching Material for Physics Education Department Students in the topic of Electricity, which is consist of a syllabus and a module, is considered valid, suitable, and appropriate to be used for the teaching and learning English activities of Physics Education Department Students' classroom. Moreover, the prototype material 2 of module material is made after conducting evaluation and revision.

4) DISCUSSION

The Designing Process of Students English Module Material

The designing phase included the process of designing or constructing the syllabus which would be the base and reference to the development of the module material. This phase was conducted based on how did Tarihoran (2008) divide the steps to design syllabus. The steps were cut up to three main stages which were:

a. The preliminary stage which includes the literature study of the theories. It was related to the syllabus design and included a study of the developed syllabus models. The parameters for the language syllabus model framework developed using the research's findings.
b. The implementation stage, the stage where the need analysis was conducted. But in this case, the need analysis result was obtained from the previously conducted need analysis study, so that this process only involved literature study. Therefore, the results were being studied and analyzed. The result is related to the necessities, lacks, wants, learning problems and learning styles of Physics Education students in learning English.
c. The completion stage which is the last stage of syllabus preparation. It included choosing the type of syllabus, updating the syllabus, and creating the final form. The type of syllabus which was designed in this stage was a skill-based syllabus. This skill-based syllabus consists of four English skills i.e., reading, writing, listening, and speaking.

Moreover, the steps to design the skill-based syllabus based on the skill-based model suggested by Holmes (1981, as cited in Hutchinson & Waters, 1987) are: 1) Analyze target needs. In this phase, the target needs results which are obtained from the need analysis inventory needs was being reviewed. 2) Select interesting and representative text. Selecting possible text related to the topic of the syllabus, e.g., selecting some article and audio related to the topic of Electricity in Physics. 3) Devise a hierarchy of skills to exploit the texts. In this matter. The hierarchy of skills in this research were set up based on the need analysis result (i.e., in inventory needs where they found that the sequence of the preferred skill to be developed was sequenced by reading, speaking, writing, and then listening). After analyzing the inventory needs, the syllabus was sequenced in the same order to it. 4) Order and adapt the text as necessary to enable a focus on required skills. The text that has been selected then was adapted to match the required skills. 5) Devise a system to assess the acquisition of the skills. This phase included the process selecting appropriate exercises to be used in practice and assess students' skills and competencies.

In the matter of designing syllabus, it also important to understand that the way to design syllabus need to complete all the components that is need to be added in the syllabus. Therefore, the components included in this syllabus i.e., a) The topic of electricity; b) Learning outcomes include the skill and their learning outcomes that is hoped to be achieved by the students, it is divided based on the skills. c) Indicator which is the series of behavior that can

be measured or observed to show the achievement of learning outcomes. In this phase, the indicator was constructed oriented the Blooms' Taxonomy models of learning. It is a set of hierarchical models that classify and group the objectives of educational learning sequenced based on the complexity and specificity. The verbs that are used in indicator were adjusted to the series of operational verbs that is included in Blooms' Taxonomy. d) Skills, i.e., ordered in the sequence of reading, speaking, writing, and then listening. e) Activity, that is series of activities that the students will be involved in the class. f) Evaluation consists of some kinds of assessments types that will be done in by the students i.e., Answering question, Sequencing words as well as oral presentation.

The Development Process of Students English Language Teaching Material

Following the designing syllabus phase, the development of module material phase was conducted. As Hutchinson & Waters (1987) stated that there are three possible ways of constructing teaching materials which was being the base of this development phase, they are: selecting from existing material, writing your own material, as well as modifying existing material. Moreover, the researcher employed the third way i.e., modifying existing material or adopting material. In this matter, this way of developing material is an integration of the two ways of constructing teaching materials. Where in the matter of choosing the text, passage, and picture, the selecting material way was employed, and the writing material way was used in the process of constructing tasks and exercises.

Selecting from Existing Material (Material Evaluation)

Selecting from existing material or in the other term, material evaluation, means linking needs to the available solutions. In this phase the researcher applied Hutchinson & Waters' (1987) model in selecting material which is available commercially in the internet. Firstly, the researcher searched some kinds of text, materials, audio and picture in the internet. Secondly, the researcher selected the best material that is appropriate to be used in the module material using the previously stated model. In the model, there are some major steps that were conducted to find the appropriate text and material including the following:

a) Defining Criteria

This process included choosing the criteria to judge the kind of text and audio that would be used in the material. Consequently, the researcher chose the content and language as the point criteria to review material found. Considering the users of this material who are the

students of Physics Education department, The content and language in the material are the criteria that the researcher thought are important.

b) Subjective and Objective Analysis

Based on the criteria that has been chosen i.e., content and language, the researcher then employed some basic criteria to choose the most appropriate material to be included in the module. The following criteria are chosen based on the syllabus.

Figure 2. Subjective and Objective Analysis of Material

Audience
The material was appropriate to be used by the students of Physics Education.
Aims
The aims of the material used was related to the aims learning outcomes in the syllabus.
Content
The language focus of the material must be vocabulary related to the topic of electricity in Physics
The proportion of work on macro-skills included all of the four skills i.e., reading, speaking, writing, and listening, as well as the integrated skill.
The micro-skill covered in the material included was customized based on the syllabus
The text types included visual text, pictures, and listening text.
The subject-matter area was Physics.
The topic discussed included in the topic of electricity
The level of knowledge is for the university level.
The treatment that is given by the topic are factual.

c) Matching the Analyzed Needs to the Potential Solutions

In this step the researcher matches the result of need analysis, syllabus, and the material. This step included the process of gathering all of the texts and passages, pictures, and audio that have been selected.

Write your Own Material (Material Design)

After selecting the appropriate material in the previous stage, the next was to write the material, in this case, the researcher wrote the material's exercises. This phase also adapted the model provided by Hutchinson & Waters (1987). This specific model aims to give a logical framework for the integration of different learning aspects while also giving teachers ample opportunity to express their creativity and variation.

Moreover, the model to be used consists of four components i.e., input, content focus, language focus, and task. First, Input includes the process of selecting material, which was

already conducted in the material evaluation stage. Second, content focus which was the phase to review the materials' content to be chosen and to organize the content of the module. Third, language focus, the phase of choosing proper grammar material to be included. In this matter, the researcher focusses on the use of present tenses and vocabulary mastery. The last phase was to make the task or the exercises based on the provided material. This task must be linked to the language focus that has been chosen previously.

Modify Existing Material (Material Adaptation)

Adapting or changing already-existing material in this case, the two methods of creating instructional materials have been combined in this method of material development.

The Evaluation Process of Students' English Language Teaching Material

After conducting series phases and stages of designing syllabus and developing module, and the product has finished to be made, the next phase was the conducting the evaluation process for both products. Thus, it was divided into three major evaluations i.e., self-evaluation, and Peer evaluation as well as validators evaluation.

First, the syllabus and prototype material 1 were evaluated by the researchers as part of a self-evaluation. The researcher took some activities during the designing phase, including selecting, modifying, designing, and producing material. As a result, theoretical understandings are learned through reading and comprehending some of the references that were mentioned earlier in the second chapter was used to review the researcher's own product material. It is hoped that the finished product would meet the needs of the students. As a result, the procedure is known as the researcher's self-evaluation.

Secondly, the peer-evaluation was conducted. According Hutchinson & Waters (1987, as cited in Rahmat et al., 2020), peer evaluation is one kind of evaluation that is able to help the researchers to assess their product or developed material. Moreover, in this type of evaluation, the result of the designing phase was evaluated by the two consultants of this research who are the English Education Department lecturers as well as the researcher's partner who were conducting the same research as this research. Given suggestions, comments and critiques are all important in the next process of developing materials to be more qualified and suitable to be applied in the English teaching and learning activities of Physics Education Department students.

The two research consultants recommended that the materials be created in compliance with the syllabus and that they be modified in response to the recommendations and criticisms of the materials' validators. Additionally, the research collaborators on this project, i.e., the researchers working on the same projects in the fields of equilibrium, optics, and magnet, participated in evaluating the outcomes of this designing phase. They advise that the module should have an engaging layout to draw in learners, that the syllabus's learning outcomes should be created using examples of operational verbs from Bloom's taxonomy (they also got this recommendation from their consultants), and that the module should cover each specific learning objective. Consequently, the syllabus then went to a process of revision before was been developed to a product material.

The last evaluation phase was the evaluation by the validators. The validators were two lecturers of English Education Department who possessed and mastered knowledge in the field of English Language Teaching and were capable to be the validators of the material that have been developed. Therefore, the validation process was conducted by the validators by filling the evaluation checklist form. There were two kinds of evaluation checklist in this syllabus i.e., the evaluation checklist for module material and the evaluation checklist for the syllabus. After that, the result was counted using Microsoft excel. The kind of measurement done was not really complex and there only two kinds of result to be measured i.e., evaluation checklist of syllabus and evaluation checklist of module material. It was the reason to choose Microsoft Excel as the tool.

The kind of scale measurement that was employed in the evaluation checklist was the Likert scale. It is a scale where an individual must reply to a series of statements by saying they strongly agrees (SA), agrees (A), is undecided (U), disagrees (D), or strongly disagrees (SD). Then the statements were adopted and changed to a form of points ranging from 1 to 5 for every indicator of evaluations. 1 means very bad and then ranging to 5 which means very good (Gay et al., 2019). The reference for this adaptation was from a thesis written by Alam (2021). Moreover, Rahmat et al., (2020) stated that the learning materials subsequently claimed validity once all the items or criteria were marked and produced positive results. The following factors contribute to the teaching materials' excellent design: clear aims and targets, a development framework, and a methodical presentation of the concept of integrated skills. The previously stated criteria are all included in the evaluation checklist and already marked and resulted good.

Therefore, the results of the evaluation checklist in all criteria shows that the score obtained with an average of 4,5 for both evaluation checklist of module and syllabus. For supporting the validation result, a thesis was written by Alam (2021) in which contains the development process of English Teaching Materials for students in Islamic Economics at UIN Alauddin Makassar was being the reference. The content of the thesis indicate that a good module scored between 4.5 and 5.0.

In conclusion, the fact that the evaluation checklist result of the module and syllabus of this research fell into the very good category indicates that the designed and created products both met good standards. Therefore, the module and the syllabus are declared valid based on the results of evaluation conducted by the two validators. Providing the result, the researcher suggested to the next researcher to continue this research, especially in the implementation phase or conduct the experiment in using the product of this research in the Physics Education Department classroom. Considering that the process has not been conducted due to time constraints, more research has to be done on this study to ensure that the module material the students need is relevant to the teaching and learning process.

5) CONCLUSION

The goal of this study is to develop, to construct, and to make an English Language Teaching material. Consequently, this material is specifically made for the students of Physics Education Department and particularly focused on the topic of electricity. ADDIE (Analysis, Design, Develop, Implementation, and Evaluation) Model was applied in the developing process of this English Language Teaching Material.

The syllabus was designed based on the result of need analysis. It focused on a topic i.e., Electricity from seventeen topics in the need analysis result. The syllabus was a skill-based syllabus which was divided by the four English skills which are reading, speaking, writing, and listening. It is also consisted of learning outcomes and indicator that the students need to achieve after the lesson, activities and evaluation that the students will carry out in the learning process.

The development phase of module material was conducted in reference of the syllabus. The module material consists of Learning outcomes, several types of exercises, vocabulary list, grammar focus, as well as glossary. They are open-ended reading comprehension

exercise, vocabulary exercise, monologue practice, writing summary, ordering words task, and multiple- choice task. Therefore, the listening audio was generated into a QR code to let the students access the audio by scanning it.

The evaluation phase was conducted in three types of evaluation which are self-evaluation, peer-evaluation, as well as validators evaluation. The validators are two lecturers from English Education Department. Moreover, the evaluation conducted by the validators by filling out two types of evaluation checklists both for the module and the syllabus.

Based on the result of evaluation process, and after series of revision and correction, the module and syllabus developed are claimed valid to be used in the English teaching and learning process of Physics Education Department students.

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