Designing M – RIES (Mental Retardation's English Vocabularies) As Learning Media For Mild Mental Retardation Students

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ABSTRACT

English is a part of the curriculum in Indonesian schools and universities, even English is used as the extra lessons and programs developed in inclusive schools or local content specifically provided as the student's knowledge of the language. The objective of the research is to designing M – RIES (Mental Retardation English Vocabularies) as learning media for mild mental retardation students. The researcher used Research and Development (R&D) methods. In this research procedure adapts ADDIE model that consist of five stages. Those are: analysis, design, development, implementation, and evaluation. The researcher used observation and questionnaire to collect the data. This media has been validated by 4 experts before being implemented to the students. The result of the material experts validator obtained 82,5% and 90% in the "Strongly Agree" category. In addition, the result of media experts validator obtained 89,4 % and 96,4% that was also include in "Strongly Agree" category. The researcher conducted trials on 4 mild mental retardation students at SMALB Tunas Harapan 1 Tembelang. The result of implementation obtained 95% were in "Very Good" category. By having those results, this M – RIES media is feasible to be used as learning media for mild mental retardation students.

Key words: *Learning Media, Mild Mental Retardation, M – RIES, R&D, Vocabularies*

ABSTRAK

Bahasa Inggris menjadi bagian dari kurikulum di sekolah-sekolah dan universitas di Indonesia, bahkan bahasa Inggris digunakan sebagai pelajaran tambahan dan program-program yang dikembangkan di sekolah inklusif atau muatan lokal yang disediakan secara khusus untuk pengetahuan bahasa siswa. Tujuandaripenelitianiniadalahmerancang M – RIES (Mentall Retardation English Vocabularies) sebagai media pembelajaran untuk siswa dengan keterbelakangan mental ringan. Peneliti menggunakan metode Penelitian dan Pengembangan (R&D). Dalam prosedur penelitian ini, digunakan model ADDIE yang terdiri dari lima tahap, yaitu: analisis, desain, pengembangan, implementasi, dan evaluasi. Peneliti menggunakan observasi dan kuesioner untuk mengumpulkan data. Media ini telah divalidasi oleh 4 pakar

sebelum diimplementasikan kepada siswa. Hasil dari validator ahli materi didapatkan sebesar 82,5% dan 90% dalam kategori "Sangat Setuju". Selain itu, hasil dari validator ahli media didapatkan sebesar 89,4% dan 96,4% yang juga termasuk dalam kategori "Sangat Setuju". Peneliti melakukan ujicoba pada 4 siswa tunagrahita ringan di SMALB Tunas Harapan 1 Tembelang. Hasil implementasi didapatkan sebesar 95% dalam kategori "Sangat Baik". Dengan hasil tersebut, media M – RIES ini layak digunakan sebagai media pembelajaran bagi siswa dengan keterbelakangan mental ringan.

Kata kunci: Kosakata, M – RIES, Media Pembelajaran, Tunagrahita ringan, R&D

INTRODUCTION

Language is a substantial means of communication. It allows us to transfer our thoughts, feelings, and ideas to others and to understand the thoughts, feelings, and ideas of others. Without language, it would be very difficult to communicate effectively, and our ability to work together, form communities, and create complex societies would be severely limited.

English is considered as an important international language. (Ma'arif&Ashlihah, 2017) states that the popular international language used is English. English is absolutely important. English also used in various fields such as business, education, tourism, science and technology, and many more. Many Indonesians recognize the importance of English in order to communicate effectively with people from different countries and cultures, and to access information and opportunities available in English.

Moreover, English is also a part of the curriculum in Indonesian schools and universities, and is taught as a compulsory subject from an early age. This reflects the recognition of the importance of English for Indonesians to be competitive in the global marketplace and to succeed in various fields.In addition, at all levels of school, high school, middle school, and elementary school, students learn English as an obligatory subject. (Baroroh, 2018).

Even English is used as of the extra lessons and programs developed in inclusive schools or local content specifically provided as the student's knowledge of the language, specifically for mild mental retardation students at SMALB Tunas Harapan 1 Tembelang.

From the result of observation, the researcher found that 3 out of 5 students at SMALB Tunas Harapan 1 Tembelang were students with mild mental retardation disabilities. According to WHO, children with intellectual disabilities or mild mental retardation are children who have two essential components, those are the intellectual function resides below average due to their inability to adjust to norms that exist in society and are accompanied by inability in behavioral adaptations that arise in the future development. In consequence, there are several problems experienced by mild mental retardation students, such as learning difficulties, self - adjustment difficulties, speech and language disorders, and personality problems.

In learning process for mild mental retardation students require full attention and clear feedback. Therefore, to facilitate communication in learning English, mild mental retardation students need basic listening skills. By having good listening skill, they can better understand verbal instructions and apply them in action, improve comprehension of lesson material, concentration, and focus on social interaction. Teaching materials according to how they work consist of: non-projected teaching materials, projected teaching materials, audio teaching materials, video teaching materials, and computer media teaching materials (Meishanti, 2022)

Based on the interview between the researcher and English teacher at SMALB Tunas Harapan 1 Tembelang, the teacher still use books and flash cards as a learning media. It caused students to become bored and do not focus on learning. By knowing the problems experienced by mild mental retardation students above, it will greatly affect the learning process.It is often seen that mild mental retardation students at SMALB Tunas Harapan 1 Tembelang have difficulties in learning English and vocabulary mastery.

To help mild mental retardation students master vocabulary, the researcher tries to design M – RIES (Mental retardation English Vocavularies) for mild mental retardation students. Based on the description above, the title of this study conducted is **Designing M – RIES (Mental Retardation English Vocabularies) as Learning Media for Mild Mental Retardation Students**. The researcher hopes this media is able to help the students mastering vocabulary in English easily.

METHODOLOGY

Research Design

This research is include in Research and Development type. According to Sugiyono (2009: 297) as cited in Sentyifa's journal, research and development is research used to produce a demanding product and test its effectiveness. This method aims to design application as a learning media that suitable for helping mild mental retardation obtain English vocabularies at SMALB Tunas Harapan 1 Tembelang. Learning media in this research uses the ADDIE model evolved by Dick and Carry in 1996 to design a learning system.

Research Procedures

The research method used in this research applies to the R&D with the ADDIE model that includes of five steps. Those are Analysis, Design, Development, Implementation, and Evaluation as this model is more suitable and progressive than other models.
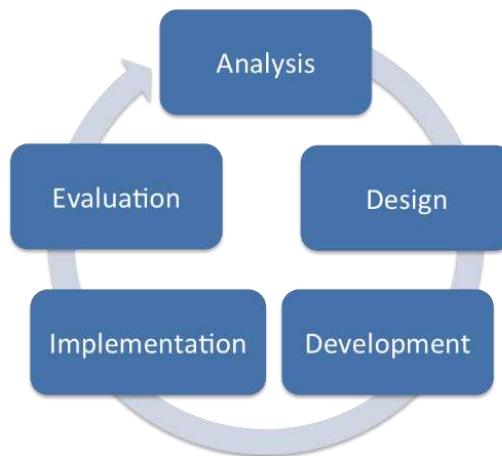
Figure 1. Design of Research and Development

Analysis

The first step is to analyze the needs of new product development (models, methods, learning media, textbooks) and find out the feasibility and requirements of product development. Product development can be started with a problem in an existing/implemented product. Problems can and will arise because existing or pre-existing products no longer match the needs of the target audience, learning atmosphere,

technology, student characteristics, etc. After analyzing the case of the need for new product development, the feasibility and conditions of product development must also be analyzed.Data Analysis in this research conduct as follows:

1. Subject of the Research

    SMALB Tunas Harapan 1 Tembelang, academic year 2022/2023, located in Tembelang, Jombang was chosen as the research setting. Especially for 10th grade mild mental retardation students.

2. Collecting Data

    For collecting data, the researcher used questionnaire. The questionnaire contains a few questions through learning English that have to be answered by the teacher and the students. From the questionnaire, the researcher conduct 5 respondents who answered the questionnnaire.

Design

The researcher designed an application learning media based on the data from questionnaire. The product is designed according to the core competencies and basic competencies given by the English teacher in SMALB Tunas Harapan 1. The design of the "M – RIES" used Powerpoint to create assets, Audacity application for sound editing, and Wordwall as the games website. This "M – RIES" storyboard is an initial description of the product to be developed.
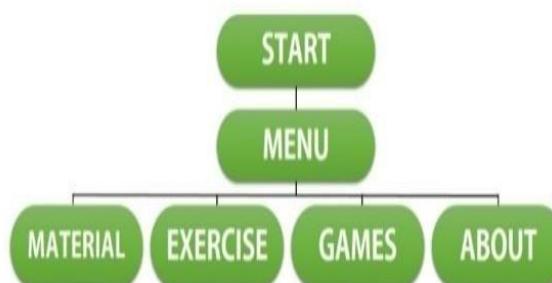
Figure 2. M - RIES Storyboard

Development

The Development is the next step after product design. At this point, the researcher begins to develop the learning material based on the design aspect. The results of this step will be checked by the experts. They are materials experts and media experts. The researcher used the Likert scale to conclude the value of the data from the experts, as follows:

$$P = \frac{\text{score data collection}}{\text{Ideal score}} \times 100\%$$

Description:

P = percentage

Ideal score = highest score per items x number of Questionnaire

Table 1. Likert Scale

Meaning Score	Category
0 – 20%	Strongly Disagree
21 – 40%	Disagree
41 – 60%	Undecided
61 – 80%	Agree
81 – 100%	Strongly Agree

(Sugiyono, 2017)

Implementation

At this stage, the design and development methods are implemented in a real classroom situation. During implementation, the design of the method was developed to be applied to real-world conditions. The materials provided are suitable for newly developed media. After learning trial, the researcher asks for a response about the media and students can give their feedback by answering several questions that have been provided by the researcher in the questionnaire.

The researcher used a rating scale to accumulate scores from the product data of students who had tried M-RIES, as follows:

$$P = \frac{\text{score data collection}}{\text{Ideal score}} \times 100\%$$

Description:

P= percentage

Ideal score= highest score per items x number of respondens x number of Questionnaire

Table 3.Formula Likert Scale

Meaning Score	Category
0 – 20%	Very Low
21 – 40%	Low
41 – 60%	Enough
61 – 80%	Good
81 – 100%	Very Good

(Sugiyono, 2017)

Evaluation

At the ADDIE model development evaluation stage, research is conducted to provide feedback to the product users so that revisions are made based on the evaluation results or unmet needs for products. The ultimate goal of the assessment is to measure the achievement of development goals.

RESULT AND DISCUSSION

The Result of Analysis

In this step, researcher conducted need analysis using a questionnaire. From the result of the questionnaire, the researcher found that the students had difficulties learning English vocabularies and they got bored to learn English because of the school did not have the interesting media to taught students vocabularies. The results of the data obtained as references of the researcher to design a learning media product. The "M - RIES learning media" product was designed to help mild mental retardation students learn English vocabularies.

The Result of Design

Based on the data obtained, the researher designed the storyboard of the learning media. The researcher designed "M - RIES learning media" using Powerpoint 2013 to create assets, Audacity application for sound editing, and Wordwall as the games website. This "M - RIES " storyboard is an initial description of the product to be developed.
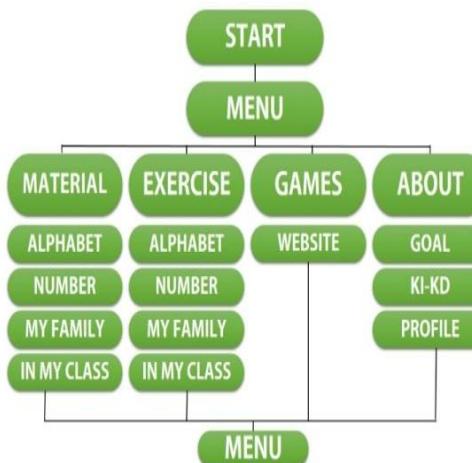

Figure 3. M - RIES Storyboard

The Result of Development

1. The Result of Material Validation

    This research had 2 validators as the material validator. M – RIES apps are focused on mild mental retardation mastery vocabulary learning. The first material validator was Mrs. Endah Purnamaningsih, S.Pd as English teacher at SMALB Tunas Harapan 1 Tembelang.

Table 4. First Material Validation

No	Material Validation Aspect	Score
1	Learning Process	27
2	The substance of the material	27
3	Suitability of student learning center presented	18
	Total Score	72

In calculating the result, the researcher prossed it by Likert scale calculation as follow:

$$P = \frac{Score\ data\ collection}{Ideal\ score} \times 100\ \%$$
$$P = \frac{72}{80} \times 100\ \% = 90\%$$

Ideal Score = 5 x 16 (items) = 80

Based on the computation of the results, the researcher got 90% score, classified as "Strongly Agree" category. This mean that materials included in M-RIES was deserve in it.

The second material validator was Mr. Rohmat Hidayat, S.S., M.Pd as English lecturer in K.H. A. Wahab Hasbullah University.

Table 5. Second Material Validation

No	Material Validation Aspect	Score
1	Learning Process	17
2	The substance of the material	31
3	Suitability of student learning center presented	18
	Total Score	66

While computed the result, the researcher prossed it by Likert scale calculation as follow:

$$P = (Score\ data\ collection)/(Ideal\ score)\ \times 100\ \%$$
$$P = 66/80\ \times 100\ \% = 82,5\%$$

Ideal Score = 5 x 16 (items) = 80

Based on the calculation for the result, the researcher got 82,5% which was categorized in "Agree" category. It means that the materials on M – RIES apps is deserved to be provided in the product.

2. The Result of Material Validation

Same as the meterial validation, in this research have 2 of media validation. In media validation focused on the operating of the M – RIES media. The first media

validator was Mr. Moh. Anshori Aris Widya, M.Kom as Faculty of Industrial Technology lecturer at K.H. A. Wahab Hasbullah University.

Table 6. First Media Validation

No	Media Validation Aspect	Score
1	General	18
2	Software Engineering	13
3	Visual communication	45
	Total Score	76

In calculating the result, the researcher prossed it by Likert scale calculation as follow:

$$P = \frac{\text{Score data collection}}{\text{Ideal score}} \times 100\%$$
$$P = 76/85 \times 100\% = 89,4\%$$
$$\text{Ideal Score} = 5 \times 17 \text{ (items)} = 85$$

Based on the calculation for the result, the researcher got 89,4% which was categorized in "Strongly Agree" category. This means that the M – RIES was feasible to use with revisions according to the suggestions.

The second media validator was Mr. Ino Angga Putra, M.Pd as ICT (Information and Communication Technology) lecturer at K.H. A. Wahab Hasbullah University.

Table 7. Second Media Validation

No	Media Validation Aspect	Score
1	General	18
2	Software Engineering	15
3	Visual communication	49
	Total Score	82

While computed the result, the researcher prossed it by Likert scale calculation as follow:
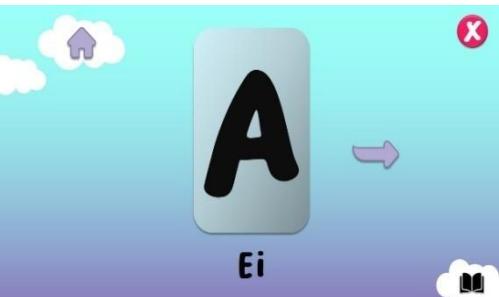
$$P = \frac{\text{Score data collection}}{\text{Ideal score}} \times 100\%$$
$$P = 82/85 \times 100\% = 96,4\%$$
$$\text{Ideal Score} = 5 \times 17 \text{ (items)} = 85$$

Based on the calculation for the result, the researcher got 89,4% which was categorized in "Strongly Agree" category. This mean that the M – RIES was feasible to use with revisions according to the suggestions.

3. The Result of Product Revision

    The researcher revised the product according to the suggestions and inputs that had been given by the experts after the media and material experts had validated. Product revision details were as follows:

Before Validation	**After Validation**
Media name formerly "SEVA"	After revision ofthe media name to be "M - RIES"
Coloring on the background of graded	After revision, white was chosen as the background

material
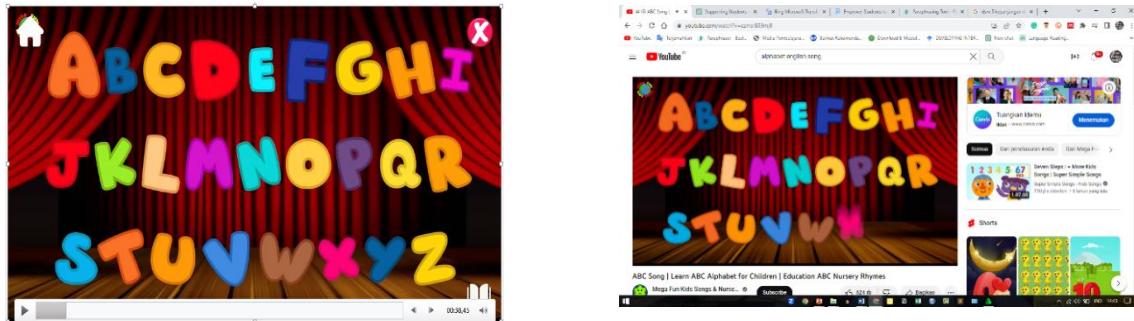
Before revision, the video can be viewed directly in the media	After revision, the video button is directed to the YouTube channel to reduce the size of the media.
In some audio materials there is a lack of clear articulation and low volume	After revision, the audio can be heard clearer with the right volume

The Result of Implementation

The results of the implementation were in the questionnaire that have been given to 4 mild mental retardation students in SMALB Tunas Harapan 1 Tembelang. After the questionnaires given, the reseacher found that the students cannot gave the feedback in the questionnaires properly. Therefore, the researcher guides students as appropriate so that students are able to answer the questions in the questionnaire given.

While computed the result, the researcher prossed it by Likert scale calculation as follow:

$$P = \text{(Score data collection)}/\text{(Ideal score)} \times 100\%$$
$$P = 190/200 \times 100\% = 95\%$$
$$\text{Ideal Score} = 5 \times 4 \text{ (students)} \times 10 \text{ (items)} = 200$$

Based on the result of the computation, the researcher got 95% which was categorized

in "Very Good" category. This mean that the M – RIES was feasible to use. By the observations made during the implementation of the media, researcher felt the reactions of the students excited and happy while using the M – RIES media.

The Result of Evaluation

The purpose of this evaluation was to see the results of "M - RIES" as a learning media for students with mild mental retardation that could be used as a reference for other researchers to design or develop the media. Based on the results of the implementation step, it could be concluded that "M - RIES" was feasible and qualified for students with mild mental retardation in learning English vocabulary.

CONCLUSIONS

Based on the reseach and development results, it could be conclude that the reseach and development program "M – RIES" is to help Mild mental retardation students learning English vocabulary. The research method use was ADDIE, after the researcher collects the infromation on students with Mild mental retardation needs using questionnaires. "M – RIES" apps designed using Power Point 2013 to create the product assets and Audacity for sound editing.

Based on the result of material validation, score of 90% was obtained in the "Strongly Agree" and 77,6% was obtained in the "Agree" category. In addition, the media validation obtained 89% and 96,4% that include in "Strongly Agree" category. The researcher conducted a trial on 4 mild mental retardation students, the result of the respond obtained 95% were in "Very Good" category with observed their reaction excited and happy with M – RIES learning media. Therefore, it could be said that "M – RIES" was suitable to used for English learning media for Mild mental retardation students.

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