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Socalture: Stimulating Students' Engagement in Learning Using Glide-based Supplementary Reading Materials

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ABSTRACT

This study was focused on developing reading supplementary material using Glide for 11th grade students in North Bali as based on the observation conducted, teacher needed variation of reading texts and media to solve the boredom in learning reading material. In addition, text based on the local culture was very rarely be found on the internet or another sources. Therefore, the development of Socalture was needed. In developing the supplementary material, this study employed Design and Development (DnD) research model by Richey and Klein (2005) comprising three main stages of design, development, and evaluation. The instruments used in this study are researcher note, validation sheet, expert judgement, and User Experience Questionnaire (UEQ). The development of the product was described step by step. Meanwhile, the quality of product from experts were analyzed using formula of categorization of data and from user using UEQ data analysis tool. From the result of data analysis, the quality of the product based on the expert judgment sheet reach percentage 93.3% in content evaluation and 97.8% in media evaluation. It means that the app has excellent quality and feasible. Based on UEQ, the app is qualified as *Good* in stimulation meaning that the app can bring motivation and excitement to the students. From the result, the reading supplementary material is able to use as teaching media to solve boredom and lack of media in teaching reading material

1. INTRODUCTION

Teaching material is one of necessary elements in teaching and learning process. As well as in foreign language education, English teaching materials have important roles in teaching and learning English (Gailea & Indasari, 2018). In developing the teaching material, the teacher should consider some elements. Moreover, the students' needs, abilities, and learning environments are very various that makes the development of teaching material is not always possible gotten from a textbook only (Thakur, 2015). To fulfill students' variative needs and to reach the lesson's objective, an appropriate supplementary teaching material in teaching English should be chosen and used by a teacher in the learning (Karki, 2018). the supplementary material is not only can be used as additional material to fulfill students' needs and reach the lesson's objectives, but also can be used as the guidance for teachers in facing inadequate learning materials during teaching process (Cahyaningrum, Wahyuni, Sulistyawati, & Kristiandi, 2016). Nowadays, supplementary material is not occurred in form of printed material like book, pop-up book, and poster, but also in form of digital like movie, YouTube video, e book, platform, even app.

The advancement of technology gave the teacher opportunities to use it as learning media. Therefore, there are many digital materials that are developed as additional material. The advancement in the 21st century and the use of technology provides connections and access to comprehensive knowledge (Winarsih, 2019). This 4.0 era is well known as the digital era (Laila, Agus, Sani, & Nur, 2021). People are common with the use of technology. Even gen Z is said born with existence of technology around them. The changing of learning styles and students need can be reshape by using technology (Santosa, 2017). Moreover, now the improvement of technology become more advance to help it easier and practical to be used. Mobile-learning became the last improvement in technology-

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based learning that is used mostly and became the most popular learning style (Laila et al., 2021). According to mobile learning helps the teacher to provide an understandable learning environment, promoting students authentic, interactive, and creative learning. Mobile phone also easy to carry and use (Pradnyana, Santosa, & Saputra, 2022). The use mobile learning usually appears in form of apps. Apps became the best solution to cover technological limitations such as screen size, memory, and storage capacity (Khaddage, Lattemann, & Bray, 2011).

There are some previous researches that discuss about the use of app as learning media that assist to facilitate the teachers and students in the educational field. The first research was conducted by Mu'afah, Tresnadewi, and Ariani (2021). Their studies focus on developing smartphone application prototype for 10th grade students in vocational school. The app is called Seed. It divided into three reading stage and activities with descriptive text material. After being evaluated by expert and trying out by the students. The result shows that the app can enhance students' motivation in learning and can facilitate autonomous learning. In addition, Maulida, Ivone, and Wulyani (2021) conducted study that focus on developing application-based reading supplementary material in order to cover the limitation of material for 11th grade students. The result of the study shows that the app can enhance students' interest and activeness in the learning process. It is feasible to be used in learning process.

In this study, a preliminary observation was conducted at SMAN 4 Singaraja. The preliminary observation was done to know teaching media and English material development used by the 11th grade teacher in teaching. The result of the observation revealed that the use of technology is common for students in the learning process, especially after online learning. Meanwhile for the material development in grade 11th is done by choosing appropriate material or text from textbook, but if the material provide in the textbook is inadequate, the teacher will brows and explore the material for addition and variety on the internet. During developing the material and conducting it in the classroom, there are some problems faced by the teacher. First is the teacher admitted that to search and select the appropriate material and exercises, it takes much of time and they do not always have a lot of time to do that. The second, in selecting text for reading material, the teacher often does not found text that appropriate in length and topic for 11th grade students and they have to modify the text they got from internet. The third, the topic of the text especially for personal letter text is rarely used local culture. It is usually about foreign culture like Halloween, Christmas, and New Year that is not related to the students. And the last is the students often feel bored and unmotivated in learning reading material because of the same form of the activities and media used by the teacher. Therefore, the focus of this study is to develop reading supplementary material for 11th grade students in the topic of personal letter text. The development of material will be in form of app that is developed by using Glide.

Glide is a website to create app that can run in Android, iOS, and Web. It chooses to be used developing the reading supplementary material because of the feature it has. The feature of the app can be customize based on the students' needs. Furthermore, Glide is very easy to use by anyone to develop app because the developers do not need to have coding skill. It gives the developer easiness to create applications only by using Google spreadsheets or Microsoft Excel (Rahmawati, Ariffudin, Latifah, & Soejanto, 2021). The developer only needs to import the Sheet into the app that is created and set the layout based on the preference. The result of the app can help the teacher in creating learning activities that is more interactive and fun. Glide App definitely can help and facilitate the teacher and learner in the teaching and learning process by its provided features that can be customized. The variative features of the created apps are Chat, video view, picture display, comments, favorite, checklist task, tab and button, and etc. By using app as mobile learning, teacher can implement the concept of learning every time and everywhere (Priyanti, Santosa, & Dewi, 2019)

Based on the description, in this study, the researcher aimed to develop reading supplementary material for 11th grade students by using Glide. The research method conducted in this study is Design and Development research design by Richey and Klein (2005).

2. METHOD

This study employed the Design and Development (DnD) research model by Richey and Klein (2005). There are two kinds of DnD research model. Firstly, is the model that focuses on product and tools development. Secondly is the model that focuses on model development. Since this study focus on

developing reading supplementary material using Glide, this study conducted the first model. DnD consist of three phases of research which are Design, Development, and Evaluation (see Figure 1).

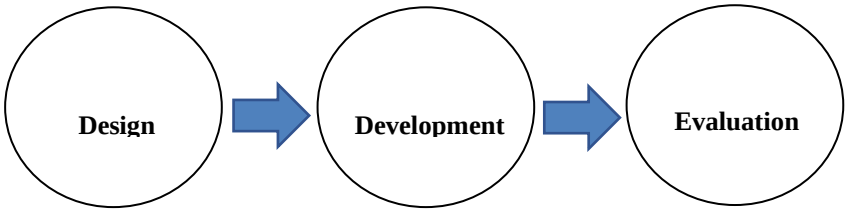

Figure 1. Research Step by Richey and Klein (2005)

Based on Figure 1, there are three main stages or phases that will be done by the researcher in order to develop reading supplementary material using Glide. The first is *Design* phase. In the design phase, the researcher does preliminary observation to observe the problem related to the material development. Next, to decide the topic and objectives that is developed, the researcher does syllabus analysis. Then, the researcher considers related literature review and the preliminary observation result, and syllabus analysis to design blueprint of the app. The second is *Development* phase. In this phase, the researcher starts to develop the app, based on the blueprint that has been validated. The development of the app includes material preparation and layout setting in Glide. The last is *Evaluation* phase. Here, the app that has been developed by the researcher are evaluated by the experts and user. The experts fill expert judgment evaluation sheet and give feedback or comments related to the revision of the app. Meanwhile the users evaluate the app by filling the UEQ.

The instruments used in this study are: (1) research's note, (2) blueprint, (3) expert judgment sheet, (4) instruments validation, and (5), User Experience Questionnaire (UEQ). The expert judgement, content and media evaluation sheet, was adapted in Findawati and Suprianto (2014). Meanwhile, the UEQ was adopted from Schrepp et al. (2017). The adapted expert judgment instruments in is firstly validated by using Cross Tabulation table by Gregory (2000) before be used.

Firstly, the problems will be collected through preliminary observation, syllabus analysis, and literature review, here the researcher used research's note to note important point. The subject of the research is English teachers who teaches 11th grade students. Secondly, the researcher creates blueprint and use it as basis of the app development. Thirdly the app will be evaluated by using Expert judgment and UEQ. There are two expert that will fill the expert judgment and 31 users, 30 students and 1 teacher, that will fill the UEQ.

The result data of product evaluation by expert will be calculated using formula proposed by . And the qualification of the result will be based on the level of accomplishment proposed by Agung (2010) to decide whether the product needs revisons. The formula and the level of accomplishment can be seen below (see Figure 2 and Table 1). Meanwhile, the result data from UEQ will be analyzed using UEQ Data Analysis Tools Version 10. The UEQ Data Analysis tool analyzes the data quantitatively. Then, the results were interpreted qualitatively. The data are input to the excel that will be calculated for the results automatically.

$$\text{Percentage} = \frac{\text{Actual Score}}{\text{SMI}} \times 100\%$$

Figure 2. Formula Categorization of the Data

Notes:
Actual Score: total answer x weight of each selection.
SMI: total of questionnaire items x the highest weight.

Table 1. Level of Accomplishment

Level of Accomplishment (%)	Qualification	Information
85-100	Very good	No need revision
75-84	Good	No need revision
64-74	Enough	Need revision
55-64	Bad	Need revision
0-54	Very bad	Need revision

3. FINDING AND DISCUSSION

Based on the preliminary observation has been conducted at SMAN 4 Singaraja, it was found that the English teacher who teaches 11th grade students most feel challenging in teaching reading material. The challenges occurred because the students often feel bored and unmotivated in learning reading text. After being observed in depth, the boredom that students feel in the learning process happened because the reading text and the media used are not variative. This is in line with the research done by Solikhah (2018) that there are five problems usually faced by the teacher during teaching reading EFL students. One of them is the way or the reading exercise are monotone that make them feel bored. They are already common with the topic or text use. Therefore, they feel the learning process is not challenging and motivated them in learning the reading text especially personal letter text. Furthermore, the media used is usually worksheet and text only, it makes them less motivated. Meanwhile the teachers feel difficulty in finding the appropriate reading text and it takes their time. Based on the findings in the preliminary observation, the researcher decided to develop reading supplementary material app-based using Glide.

In discussing the procedures of reading supplementary material development that is developed using Glide, the researcher did several procedures. The overview of the procedures including design, development, and evaluation phase as can be seen in the table below.

Table 2. Research Phase and Research Procedures

No.	Research Phase	Product Development Procedures
1.	Design	1. Analyzing teachers' existing problem during teaching, especially teaching reading material 2. Analyzing English Syllabus being used for 11th Grade 3. Designing the product blueprint 4. Designing the reading supplementary material that is developed by Using Glide
2.	Development	5. Preparing the material and the picture that will be inserted in the app 6. Inserting the material to the app 7. Checking the final content
3.	Evaluation	8. Validating Instruments that is used 9. Conducting Expert Judgments Sheet 10. Conducting User Experience Questionnaire

The first step of design, preliminary observation, has been conducted and found that the teacher need reading supplementary material to enhance students' motivation related to personal letter text. To intend the development of supplementary material that appropriate in required competence, syllabus analysis has done to adjust with the core and basic competence. The design of the blueprint was later on adjusted based on the observation and syllabus analysis. The blueprint was designed and consisted of *instrument name*, i*ndicator*, and *item statements*. In designing the app of reading supplementary material, the researcher design five tabs in the app that consist of *Home, Objective, Material, Exercises,* and *Chat* tab. In the *Home* tab, the researcher fills it with the welcoming picture and the description of the app. In the *Objective* tab, the researcher adds three tabs that contain the objectives of personal letter text material. The *Material* tab contain videos that explain the material of personal letter text. The *Exercises* tab contain personal letter text with the questions below the letter. Meanwhile, in the *Chat*

tab, the students and the teacher can discuss about the topic or any difficulty faced during answering question

In the development phase, the researcher started preparing the material. Here, the researcher was preparing the material and pictures used for the app. The material includes 2 videos, which are 1 from YouTube and 1 created by the researcher, and exercises consist of 3 texts of personal letter about local culture, 5 essay questions for each of the text. The video is made by using Microsoft Power Point, *Loomie* app and OBS Studio. Meanwhile the letter in form of picture and the pictures as cover tab and cover app is made by using Canva. Next, the researcher first collecting all of the materials and pictures that have been uploaded in a folder in Google Drive. Last, the researcher makes a spreadsheet that will be used as data for the app that is developed and import to Glide to make the layout.

After the product has been developed, the next is evaluation. In developing reading supplementary material app based that is developed by using Glide, there are two instruments that have to be filled by the expert. The expert judgment results from two experts are calculated using the formula of categorization of the data by Tegeh and Kirna (2013). The calculated result can be seen as below.

1. Content evaluation sheet from judge 1
   Percentage = $\frac{\text{Actual Score}}{\text{SMI}}$ x 100% = $\frac{42}{45}$ x 100% = 93,3%
2. Content evaluation sheet from judge 2
   Percentage = $\frac{\text{Actual Score}}{\text{SMI}}$ x 100% = $\frac{42}{45}$ x 100% = 93,3%
3. Media evaluation sheet from judge 1
   Percentage = $\frac{\text{Actual Score}}{\text{SMI}}$ x 100% = $\frac{44}{45}$ x 100% = 97,8%
4. Media evaluation sheet from judge 2
   Percentage = $\frac{\text{Actual Score}}{\text{SMI}}$ x 100% = $\frac{44}{45}$ x 100% = 97,8%

After being calculated by Formula of Categorization of Data, next, the result is qualified using the Level of Accomplishment by Agung (2010). From the calculated result, it was gotten that reading supplementary material developed by using Glide reached percentage 93.3% in content evaluation and 97.8% in media evaluation. Those were qualified as very good. It means that the product does not need to be revised. From the result of Expert Judgment and UEQ, the app does not need revision. Since this app got evaluating score above the average. It means that the app is feasible and can be implemented in the learning process as reading supplementary material for 11th grade students.

Next, the researcher conducted UEQ to evaluate the quality of the product. The UEQ was conducted after the users in which the teacher and the students have tried the developed product. UEQ consists of 26 items. Each item is stated by two contradictive statements. The contradictive statements are placed randomly, not based on the positive and negative values. From the 26 items, they are grouped into 6 main dimensions. Those dimensions are attractiveness which is about the product's impression, perspicuity which is about familiarities of product features, efficiency which is the users' easiness to use the product, dependability which is about the independency in the product usage, stimulation which is about users' excitement in using the product, and novelty which is about the product's innovation and creativity.

The researcher conducted UEQ to an 11th grade class that consists of 30 students and also conducted it to the teacher who teaches them English. First, the researcher introduced the app to the class and asked them to install it. Second, the researcher gave them time to explore the features of the app. The last, the researcher asked them to use the app by answering the question on the app. After the users have experience in using Socalture, the UEQ were conducted using Google Form. After the data have been gotten, the researcher input the data into the analysis tool. The result of the data will be automatically calculated and can be seen in Benchmark sheet.

Table 3. Calculating Result of UEQ

Scale	Mean	Comparisson to benchmark	Interpretation
Attractivenesss	1.44	Above average	25% of results better, 50% of results worse
Perspicuity	1.57	Above Average	25% of results better, 50% of results worse
Efficiency	1.15	Above Average	25% of results better, 50% of results worse

Dependability	1.19	Above Average	25% of results better, 50% of results worse
Stimulation	1.65	Good	10% of results better, 75% of results worse
Novelty	1.28	Good	10% of results better, 75% of results worse

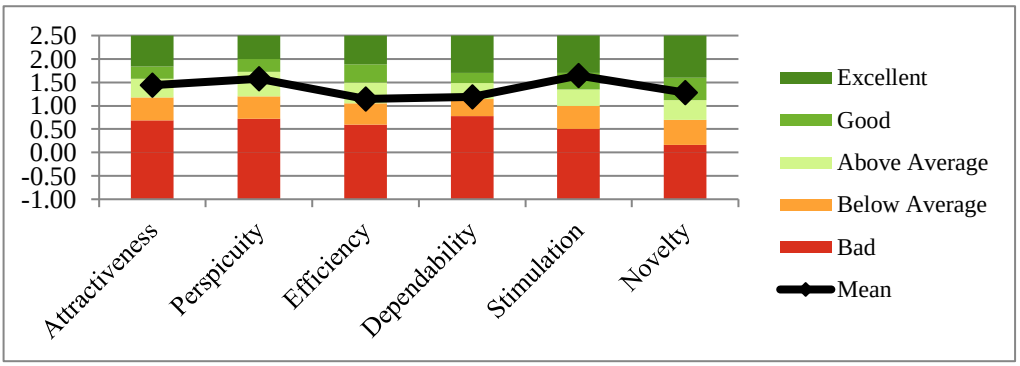

Figure 3. Result of UEQ

From the result above, it showed mean of attractiveness dimension is 1.44 which rates as Above Average (1.20-1.60), the mean of perspicuity is 1.57 which rates as Above Average (1.26-1.77), the mean of efficiency is 1.15 which rates as Above Average (1.07-1.50), the mean of dependability is 1.19 which rates as Above Average (1.16-1.47), the mean of stimulation is 1.65 which rates as Good (1.36-1.70), and the mean of novelty is 1.28 which rates as Good (1.15-1.61). Since the result of the six dimensions are rated in Above Average and Good, the product does not need revision.

From the UEQ, it can be seen based on the answer distribution that in the attractiveness dimension, there are 11 users that gave score <= 4 in item number 1 (annoying/enjoyable) and 11 users gave score <=4 in item number 24 (unattractiveness/attractiveness). It means that the app is already good, pleasant, and friendly but not really attractive and enjoyable. It might be because of the limited variation of activities done using the app. In the perspicuity, there are 8 users that gave score <=4 in item number 13 (complicated/easy). It means that the app is already understandable, easy to learn, and clear enough but the users feel that it was complicated because the connection that makes them hard to access the feature. In efficiency, there are 19 users that gave score <=4 in item number 9 (slow/fast) and 8 users gave score <= 4 in item number 23 (cluttered/organize). It means that the app is already efficient and practical enough but due to the unstable connection, the feature becomes slow to be access which are the pictures and the videos. In the dependability, there are 15 users that gave score <= 4 in item number 8 (unpredictable/predictable), in item 17 (not secure/secure), there are 11 users gave score <= 4, and 12 users gave score <= 4 in item number 19 (does not meet expectation/meets expectation). Most of them choose scale 4. It might be due to the confusedness about the term used in the item and confusedness in giving the score of the items. This means that the app is already supportive and secure. Meanwhile in stimulation, there are not many users that gave score <= 4 in each of the items. It means that the app is valuable, exciting, interesting, and motivating for them. The last, in the novelty, there are 10 users that gave score <= 4 in item number 3 (dull/creative) and 13 users gave score <= 4 in item number 10 (conventional/inventive). Most of the gave score 4, it might due to the confusedness of the term used. Therefore, they gave neutral scale.

This app was developed based on a blueprint created with learning objectives already in place. Questions about the text of the personal letters given in the app were also adjusted with the indicators and competencies that should be expected of the students. Compared to using textbooks only in class, there is more variety and teacher can motivate students. From the result of UEQ, we can see that the calculated result of six dimensions, the highest result comes from stimulation dimension which is 1.65. It is qualified as Good. It means that users experience that the app can stimulate them in learning. The app as reading supplementary material can bring motivation in their learning process. This is proven the statement stated by Dodd et al. (2015) that supplementary material related to the students' motivation. It increases students' engagement in the class. Because supplementary material makes the media use become variative. Therefore, they interest in learning and can participate well during the learning. In other word, by using Socalture as reading supplementary material, teacher can stimulate the students in

learning about reading material. It is in line with the reading principle by Harmer (2007) that in teaching reading, teacher should stimulate the students to respond to the reading content or information they get. In addition, it can solve the boredom that face by the students during learning about reading material. It is in accordance with the criteria of good material which the material should maximize students' potency by stimulating their brain activities (Dodd et al., 2015). Furthermore, Glide-developed digital supplementary material helps teachers assess students' understanding of the material by reviewing student responses in the comment section of the question. Through the app, teachers can summarize student performance and activities. This app can also be installed on the mobile phone you usually bring. And teacher also students can use it anytime and anywhere with synchronous or asynchronous learning. It supported by (Priyanti et al., 2019). He stated that mobile learning helps the learners to access material without limiting by time and place. In other words, the learning activities will become flexible.

4. CONCLUSSION

The study that focused on developing reading supplementary material app based using Glide for 11th grade students in North Bali. In developing the material, the researcher employed Design and Development research step by Richey and Klein (2005). The main phases of DnD research model consists of three including Design, Development, and Evaluation phase. In designing the product, preliminary observation and syllabus analysis were done to decide the topic of supplementary material and adopted the learning objectives. Therefore, the blueprint can create based on the syllabus. The topic that was chosen is personal letter text. In developing the app, the researcher started to prepare the material that will be used in the app. The things that should be inserted consist of videos, pictures, descriptions, personal letter texts, the objectives, and the questions. Then those things will input to Microsoft Excel and import to the Glide app. In evaluating the product, the researcher conducted expert judgments and UEQ. Based on the result of evaluation phase, the quality of reading supplementary material was qualified very good based on Expert Judgment sheet. Meanwhile based on the UEQ, the product was qualified as above average and good among dimensions. Therefore, the product is feasible to be used. English teachers are suggested to explore another supplementary material as teaching assistance. By using variative learning media, the students and teachers will feel enjoyable learning atmosphere. Teachers can also explore and create another app using Glide. EFL students are suggested to implement and take advantage of supplementary material in learning English because it will facilitate and help students to learn autonomously and asynchronously. For other researchers, it is suggested to begin and continue to develop other supplementary materials in various field of education. To make the development of the product by using Glide clear enough, the researcher can adapt or follow the procedures done in this study as a reference.

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