

Designing Mobile Game “Tebak Kata Inggris” as the Media of Teaching Vocabulary for Primary School Students (A Development Research for Four Grade Students in SD Integral Luqman Al-Hakim Pontianak)

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ABSTRACT

This study explores the development of an Android-based mobile game application, "Tebak Kata Inggris," designed to enhance English vocabulary learning for elementary students at Luqman Al-Hakim Qur'an-Based Integral Elementary School in Pontianak. Addressing the cognitive, affective, and psychomotor aspects of education, the research utilizes the MIT App Inventor software to create an engaging, user-friendly educational tool. The game aims to increase student motivation, engagement, and vocabulary proficiency by providing an interactive learning experience that can be accessed at school, home, or play areas. The findings suggest that mobile educational games can effectively supplement traditional teaching methods, making English learning more appealing and accessible for young learners. This approach aligns with the school's mission to develop linguistic competence alongside character education, leveraging technology to meet educational objectives more effectively.

: *Research Development, Mobile Game, Teaching Vocabulary, Primary School*

ABSTRAK

Penelitian ini mengeksplorasi pengembangan aplikasi permainan mobile berbasis Android, “Tebak Kata Inggris,” yang dirancang untuk meningkatkan pembelajaran kosakata bahasa Inggris untuk siswa sekolah dasar di Sekolah Dasar Integral Berbasis Al-Qur'an Luqman Al-Hakim di Pontianak. Menangani aspek kognitif, afektif, dan psikomotorik dalam pendidikan, penelitian ini menggunakan perangkat lunak MIT App Inventor untuk menciptakan alat pendidikan yang menarik dan mudah digunakan. Permainan ini bertujuan untuk meningkatkan motivasi, keterlibatan, dan kemahiran kosakata siswa dengan memberikan pengalaman belajar interaktif yang dapat diakses di sekolah, rumah, atau area bermain. Temuan ini menunjukkan bahwa game edukasi mobile dapat secara efektif melengkapi metode pengajaran tradisional, membuat pembelajaran bahasa Inggris menjadi lebih menarik dan dapat diakses oleh pelajar muda. Pendekatan ini sejalan dengan misi sekolah untuk mengembangkan kompetensi linguistik bersama dengan pendidikan karakter, memanfaatkan teknologi untuk memenuhi tujuan pendidikan secara lebih efektif.

Kata Kunci : Pengembangan Penelitian, Game Mobile, Pengajaran Kosakata, Sekolah Dasar

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INTRODUCTION

The integral school education system implements all aspects of the human instrument scope. Education in the school integral education system does not only develop cognitive aspects of students, but also affective and psychomotor aspects. In integral education, the school has role as an institution for developing the students' knowledge and character. However, it does not mean the school is the only important institution which has crucial role. Beside the school, there are other institutions that should be considered in the education of children such as the family and the environment. In line with it, it seems the childrens' education does not just happen in the school but also in their home or even environment. The implementation of development research especially on designing mobile game application as media in learning English for elementary school students can be one of the tools in order to support students in learning because the application can be carried out not only at school but also at home and in children's play areas.

Luqman Al-Hakim Al-Qur'an-Based Integral Elementary School is an Islamic school located on Jalan Karya Sosial, Pontianak. One of the missions of the Qur'an-Based Integral Elementary School Luqman Al-Hakim is to achieve proficiency in the language, in line with the agreement with this research. English lessons at Luqman Al-Hakim Integral Elementary School based on the Qur'an include local content lessons which are held only twice a week.

At School of Integral Luqman Al-Hakim Pontianak, English has role as local subject which studied by students in four Grade to six Grade. As the beginning of their study in English subject, it is not easy for the teachers to choose appropriate media in teaching the students. The teachers are currently considering to design or compile the material which appropriate with the students' need in order to introduce them to English subject before they study at the junior high school level. In addition, there also some problems such as the students lack of motivation, they are easily to get bored, and lack of time in learning.

The study by Tamtama, et al (2020) said mobile game applications make children more interested and motivated to learn English. The display made it easier to understand and visually appealing and made children feel comfortable and not afraid to learn new things, especially English. Meanwhile, Ng et al (2020) stated that mobile educational game helps boost the learnability of English words among students and can increase student engagement. Likewise, Zatulifa et al (2018) said the use of android-based applications is very effective and attractive for students as a development in English as a learning medium.

The learning material concerns students' needs to improve their motivation, the condition of the learning situation, and their existing knowledge and skills. Therefore, the learning material adapts to the material taught by local subject teachers. The developing material is considered to achieve the target objective and make the students interested and motivated in English learning (Mulyaningsih & Sutapa, 2019).

Absolutely, more exciting and efficient learning methods are needed so that children can obtain maximum learning outcomes—technology and information widely used in education. Children can easily and quickly understand a lesson using information and communication technology. Students can learn at home, elsewhere, and outside school hours. Learning English, especially in the vocabulary section, requires more interaction and is difficult to learn independently. Vocabulary is crucial for young learners because it plays a fundamental role in their overall language development and communication skills. Vocabulary learning at the elementary school level is essential for improving a child's English language skills. To understand and master English, a child must have a vast vocabulary.

Therefore, this research is in the form of development research that makes game mobile learning English vocabulary to motivated students. This game mobile aims for students to feel that learning is tedious and can be fun at the same time. With The Game Mobile Students can study at home with the mobile game and report their achievements to their teacher. So, the Researcher designed game mobile with the name “Tebak Kata Inggris” as media for students in primary school particularly in Integral Luqman Al-Hakim School to learn English, especially in vocabulary which also adapted to the curriculum of elementary to obtain more effective learning outcomes.

Based on the topic and the introduction above the problems for this research are, what are the needs to design of mobile game application for for four grade students of primary school at S.D. Integral Luqman Al-Hakim, Pontianak? And how is the design of mobile game application for four grade students of primary school at S.D. Integral Luqman Al-Hakim, Pontianak? This study is significant as it explores and addresses the specific needs and design considerations for creating an educational mobile game application tailored to enhance the learning experience of fourth-grade students at S.D. Integral Luqman Al-Hakim, Pontianak.

LITERATURE REVIEW

A mobile game is a type of game designed to be played on mobile phones and compatible with various operating systems such as Android and Microsoft. Nysveen et al. (2005) found that while consumers utilize a variety of services on mobile devices, entertainment and gaming services are the most preferred. In recent times, mobile games have gained significant popularity, particularly among young people, and have become integral tools for marketing and advertising within the realm of mobile applications. Mobile games have the potential to be a valuable tool for teachers, providing a fun and engaging way for students to learn. With the rise of mobile technology, there are more opportunities than ever to incorporate mobile games into teaching learning process. Some studies have been conducted relate to this issue, one of them Selvi and Cosan (2018) in their study revealed that the use of educational games in the teaching process helps students to learn and improve certain skills, as well as increase their academic success and knowledge retention.

Without needing to learn or utilize a lot of different programming languages, simple applications can be created using the MIT App Inventor platform. As Patton et al (2019) said that MIT App Inventor is an online platform designed to teach computational thinking concepts through development of mobile applications. By utilizing the many accessible layouts and components, we are able to create whatever type of android application we choose. With the help of the app inventor, users can learn computer programming and develop software apps for an operating system based on Android. Because it enables users to utilize, see, compose, and drag and drop blocks—which are command symbols and event handler functions—to develop an application that can operate on the Android operating system, this app creator is based on visual block programming. The primary aim of MIT App Inventor is providing anyone with an interest in buildin apps to solve problems with the tools necessary to do so. Instructional materials developed by the team are primarily oriented toward teachers and students at the middle- and high-school levels, but app inventors come in all ages from around the world (Patton et at, 2019).

Language is used to communicate ideas and experiences. We can express our idea or experiences if we have known the vocabulary of the language, it is impossible for us to make a conversation without the mastery the vocabulary of language. As Coady and Huckin (2003) believed that vocabulary is a main of the language. Vocabulary is one of language part that must be known by foreign learners to understand the four language skills. There are several

definition of vocabulary. Alqahtani (2015) defines vocabulary as the total quantity of words required to convey concepts and the speaker's meaning. Kamil and Hiebert (2005) defines vocabulary in general as the knowledge of words and word meaning. Iman (2016) defines a list of words that arranged in alphabetical order as a vocabulary.

Since early foreign language learning increases language competency, teaching English to young learners is important. Students can develop native-like pronunciation, increase school achievement and problem-solving skills, communicate with more people, and understand other cultures. However, if teachers don't create enjoyable learning environments, young learners may hate the language and fail to learn. According to Sutrisno in Pratyani (2019), teaching English to young learners can pose these risks: 1. Insufficient education skills or training can put young learners at risk; 2. Copying inappropriate accents can hinder pronunciation acquisition, as seen in teachers. According to the Critical Period Hypothesis, this can produce fossilization and hinder language learning in early learners. It also occurs when teachers deliver assessments that don't measure student learning;

The selection of instructional materials is another potential risk while teaching English to young learners. We know there are many primary school English books everywhere. Some are poorly written, others well-designed. Teachers may not give kids a sound foundation if they don't properly choose texts. Instead, they may cause learning issues. Over the past 50 years, psycholinguists have learnt much about children's language learning. Cameron (2005) also notes that teaching a foreign language to children differs from adults. Children are more eager and livelier learners than adults, and they seem less uncomfortable at speaking a new language. All typically growing children grasp their first language's complicated pronunciation, grammar, and vocabulary.

RESEARCH METHOD

Design

Design and Development Research was used by the researcher. It was ideal for the researcher's research approach, which subsequently focused on building a new product that taught language to SD Integral Lukman Al-Hakim Pontianak fourth-grade children. There are various components to instructional design. According to Aldoobie (2015), the component included an examination of learners' challenges and wants, as well as devising instructional design, including activities and materials. Many studies employ a variety of instructional models, but the ADDIE model is the most generally used. According to Aldoobie (2015), the ADDIE model is a technique that may provide an effective and efficient design in all instructional design products. Aldoobie (2015) goes on to say that ADDIE can be used effectively and adjusted to the model's application in all online and direct circumstances.

ADDIE is an acronym in which all the system processes presents each letter of the word ADDIE. ADDIE stands for Analysis, Design, Development, Implementation, and Evaluation. Each part of ADDIE is connected, where the ADDIE final stage is the creation of a product developed by the researcher

Informant

The teacher of the local subject at Sekolah Dasar Integral Luqman Al Hakim Pontianak served as the informant and respondent. The research product was conducted on fourth-grade students of Sekolah Dasar Integral Luqman Al-Hakim Pontianak, located on Jl. Ampera, Kecamatan Pontianak Kota. This research was conducted in the first semester of the Academic Year 2022/2023. The product for the sample and the implementation of the revised

development took place in November 2023.

Techniques and Tools of Data Collection

The suitable and appropriate technique of data collection is very important. By choosing and using an appropriate technique to collect the data, it would guarantee that the research outcome can be considered objectively. The researcher used two techniques for collecting data for this development research. They are interviews and content Analysis. The interview was used to gather in-depth information from the research participants. The primary teacher of the Local Subject of S.D. Integral Luqman Al-Hakim, Pontianak, interviewed the teacher's needs regarding the product. The curriculum of teaching English in elementary school and the condition of the school were analyzed using content analysis to find out the curriculum needs and school needs.

The Technique of Analyzing the Data

The data was be analyzed qualitatively. The procedure includes data reduction, data display, drawing conclusion and verification. They are discussed below:

a. Data reduction

Data reduction is a technique used to select, concentrate, simplify, abstract, and convert data found in written field notes or transcripts (Miles & Huberman, 1994: 10). Data like interview transcripts, findings, and interviews are condensed to make it simpler to form conclusions. All of the data is reduced by coding, summarizing, and deleting any information that is irrelevant to the theoretical framework or study aim.

b. Data display

The presentation of results is the second crucial research flow. According to Miles & Huberman (1994: 11), a show is a structured, compressed data package that enables conclusion-drawing and subsequent action. It is utilized to make inferences from the vast amount of data. The information will be split, categorized, and labeled according to how similar they are. It is possible to extend a text or graph to the shape of the data. By watching the program, the researcher will be able to comprehend and observe what is taking on before moving on to the next stage.

c. Conclusion drawing and verification

Since the beginning of data collection, temporary conclusions have been made as data reduction and display are part of research. The content of the collected data is drawn in the form of a good statement when making the conclusion. The drawing of the conclusion will show the usability of the additional content. Verification means checking for authenticity the provisional conclusion.

RESULTS AND DISCUSSION

i. Analysis

a. Target Needs

The intended needs and the needs analysis are related. It is crucial to comprehend what pupils would have to state and what they would need to discover in the intended scenario. It is noteworthy that there are three categories into which target needs can be classified: wishes, lacks, and necessities. The word "necessities" describes the abilities required to achieve a specific ability. According to Hutchinson and Waters (1987), the term "lacks" denotes skills that are yet to be acquired, whereas "wants" denotes skills that must be learnt. Students' needs, wants, and deficiencies in relation to

the requirements and expectations of their targets are all covered by the needs analysis questionnaire. The results are summarized as follows:

Table 1. Neecessities

Question	Items	N	(%)
Is there a need for additional material of Vocabulary like mobile English game?	i. Highly Necessary	35	23.1
	j. Necessary	35	74.4
	k. Less Necessary	35	0.00
	l. Not Necessary	35	2.6
Question	Items	N	(%)
How important is English vocabulary material with game mobile?	m. Very important	35	38.0
	n. Important	35	53.8
	o. Less important	35	7.7
	p. Not important	35	0.00
Question	Items	N	(%)
Is understanding vocabulary necessary before reading the text?	e. Strongly agree	35	20.5
	f. Agree	35	76.9
	o. Less important	35	2.6
	p. Not important	35	0.00

The table above shows student opinions on added vocabulary. The data shows that 74.4% of students say they need more class vocabulary to study. 53.8% of students felt vocabulary products with content were essential for vocabulary growth. 76.9% of students believe a strong vocabulary is necessary for text comprehension. Given their educational background, kids need additional English language teaching that incorporates vocabulary understanding and vocabulary to improve.

Table 2. Wants

Questions	Items	N	%
What I want in English lesson	e. A short conversation text	35	43.6
	f. English terminology in a simple text	35	61.5
	g. Simple text with information of the school	35	20.5
	h. An example of a simple conversation between friends	35	53.8
Questions	Items	N	%
It's better for me if the reading assignment comes in the form of	a. Doing Exercise in the game	35	51.3
	b. Learning English In the Mobile Phone	35	15.4
	c. Do the exercises in the book	35	15.8
	d. Discuss with friends about the text in the book	35	20.5
Questions	Items	N	%
	e. recognize every single word,	35	76.9

I want to study English in general, which will improve my ability to	f. increase my grammar knowledge		30.8
	g. understand and use every word, sentence, and expression in English	35	79.5
	h. understand how formal and informal language is used in a particular text	35	28.2
Questions	Items	N	%
I like vocabulary texts with easy -to understand	e. Strongly agree	35	51.3
	f. Agree	35	43.6
	g. Disagree	35	2.6
	h. Strongly Disagree	35	2.6

Table 3 Learning Needs : Input

Questions	Items	N	%
I believe that game can help improve one's English skills.	e. Strongly agree		15.4
	f. Agree		61.5
	g. Disagree		20.5
	h. Strongly Disagree		2.6
Questions	Items	N	%
Vocabulary assignments are typically given by the teacher	e. Supplying material in the form of text taken from printed books		69.2
	f. Providing material on vocabulary		66.7
	g. Providing material and requiring students to do tasks		59
	h. Giving vocabulary material and discussing with a classmate		64.1
Questions	Items	N	%
The length of the text usually given by the teacher is	e. 10 - 20 words		23.1
	f. 20 - 30 words		33.3
	g. 30 - 40 words		17.9
	h. More than 40 words		25.6
Questions	Items	N	%
What kind of English lesson interests you?	e. Tutorial		74.4
	f. History		28.2
	g. General knowledge		61.5
	h. News		30.8
Questions	Items	N	%
When providing English	e. Less than 25 words		46.2
	f. 25 – 35 words		41
	g. 35 – 45 words		5.1

lesson material, how long should the text be?	h. More than 45 words		7.7
Questions	Items	N	%
Is it important to have pictures in vocabulary text?	e. Very important		51.3
	f. Important		48.7
	g. Not too important		0
	h. Not important		0

The table above shows students' English problems. Since they had a restricted vocabulary, most thought it would hinder language learning. 66.7% of table students provide less than 10 words. Thirty.8% of students with 10–50 words have them. 2.6% of the rest have 1,000+ words. They also struggle to pronounce English words, especially vocabulary phrases, which inhibits their capacity to explain things and build sentences.

Table 4.3 desires indicates what students wanted most from vocabulary activities based on their replies. Given their scholastic background, 61.5% of pupils wanted to study a vocabulary text. Content-wise, 51.3% of students appreciate vocabulary short pieces regarding school, careers, and general vocabulary. The majority of SD Integral Luqman Al-Hakim Pontianak Fourth Grade Students (76.9%) wanted to learn more general and specialized vocabulary. According to the data, 51.3% of students strongly agree that vocabulary should be simple and use terminology suited for their level. In conclusion, students want English books with basic vocabulary and context. B) Educational prerequisites Learning needs are the abilities and knowledge students need to perform a competency in the intended environment (Hutchinson and Waters, 1987: 60). Needs analysis questionnaires comprise input and procedure.

These results are summarized: According to the data, 51.3% of students strongly agree that vocabulary should be simple and use terminology suited for their level. Results are summarized below: The data reveals that 61.5% of students think broadening their vocabulary will enhance their English. The teacher helps students by offering vocabulary as a group assignment. Students can collaborate and debate proposals. Teachers assign printed books with 30–40 words for vocabulary practice. It depicts classroom learning. more students agree that instructional vocabulary materials and subject knowledge are more popular. Students believe that vocabulary materials from other areas can generate interest in language and make studying more engaging. Another crucial text factor is length. Between 25 and 35 words is fine. Their remarks support the narrative and emphasize images' importance, which makes sense.

Table shows students' perspectives on learning new terminology. If a word is unfamiliar, 74.4% of students use a dictionary. Also, 43.6% of vocabulary is filled in with specified terms. 38.5 percent used the glossary to understand technical words in the text. 17.9% of students said phrases using new words boost their vocabulary. The table above shows student task choices. 38.5 percent of students choose true/false

questions. Matching phrases is fun for 25.6% of students. 23.1% of students pick vocabulary questions. 17.9% of students like word and phrase meaning and context.

In conclusion, need analysis results reveal learners' perspectives on the target situation. Students desire new vocabulary materials with a vocabulary theme to improve their English, vocabulary, and understanding. Students like 20–30-word texts with tutorials, vocabulary, and visuals. Students can learn procedural terminology by using a glossary or dictionary. They had to choose a matching word during the exercise or activity and obtain their score.

ii. Design

After completing the needs analysis, the researcher moves on to the next step of the process, which is developing the product outline. It comprises determining the intended outcome, determining the essential learning tasks necessary to achieve the goals, and putting in place the instruments for assessing the suitability of the learner. There are many steps in the design process. Selecting the appropriate terminology is the first step. The researcher used the four grade SD modul ajar kurikulum merdeka 2023 (prototipe) in English. When choosing vocabulary material, Lukmanul Hakim Pontianak is integral. The focus of the course work this semester is Basic Vocabulary. As a result, the language associated with the fundamental requirements of vocabulary becomes the main subject of instruction throughout this phase. Five material units were produced by the researcher using the syllabus as a guide. Each unit included coverage of pre-, during-, and post-activities. There is a warm-up in the pre-activity. Numerous questions about terminology were posed to the students. During this pre-activity, students can share their initial views on the material they were given. Students can use additional photos in addition to the questions in the pre-activity to help them with their answers. Throughout the exercise, students get vocabulary related to general knowledge or vocabulary information along with a variety of illustrative materials.

The next step is to design the content into books. The researcher selected MIT App Inventor during the book's design. The application allows users to create a wide range of materials, including booklets, presentations, book covers, and brochures. The software also comes with a couple of tutorials. The information can be utilized by students as a vocabulary-building tool or as a guide for the instructor's lesson plans. You can use this content as a supplement to help pupils get more excited and motivated to learn new vocabulary. This material is useful in the classroom since kids find the visuals and colors utilized in it engaging. For students who wish to expand their vocabulary, particularly in relation to Vocabulary-related issues, a glossary is included with each vocabulary word. In the post-activity, students match phrases, answer multiple choice questions about what they read, and select the appropriate sentence depending on their vocabulary. Students are encouraged to reflect on what they have learnt and share their ideas with others.

iii. Develop

This stage involves the actual manufacturing of the product. This process includes creating instructional materials, assisting with the creation of images, and creating user manuals for students and teachers. This portion of the research process involves compiling all of the terminology, capturing and choosing accompanying photos, and creating the assignments and exercises for each chapter. The writing style of the content is book-like. A researcher uses the data acquired from a requirements

analysis to develop an appropriate product. The following elements are included in this research for product development: the cover, the table of contents, chapters 1, 2, 3, 4, 5, and 6. When creating the large vocabulary book for students in grades four, SD The researcher, Integral Luqman Al-Hakim Pontianak, talked about it with the professors of vocabulary and English. In order to make sure that the material was appropriate for students' comprehension and understanding, the researcher and teachers convened six times to exchange ideas and acquire materials (books, online articles, and pertinent images). There are several obstacles in the way of the product's development. In order to help students comprehend the vocabulary content, vocabulary terminology, and the mobile vocabulary game, researchers had to carefully choose their topics. Both the book's language and subject are recognised as useful vocabulary resources. The result or the product can be seen from the pictures below:



When students are actively involved in an activity, they can better reconstruct their understanding of the vocabulary content and integrate it with new information from the text. Students were given a variety of topics to read on their own and expected to do so. The vocabularies also include some images to aid students in their understanding of the subject matter and some activities to help them consolidate their knowledge. Students reflect on what they've learned from the vocabulary and share their thoughts and ideas about what they've learned in the post-vocabulary activity.

iv. Expert Feedback

The following stage for the researcher was to give Tebak Kata Inggris to experts and request their input, which may serve as the foundation for future implementation, after finishing The Mobile Game Design of Tebak Kata Inggris. They discuss the applicability of the learning approach, the tasks' enjoyment, the content's quality, and the design of the mobile game. The checklist was utilized to ascertain the opinions of specialists regarding the information provided.

CHART 1

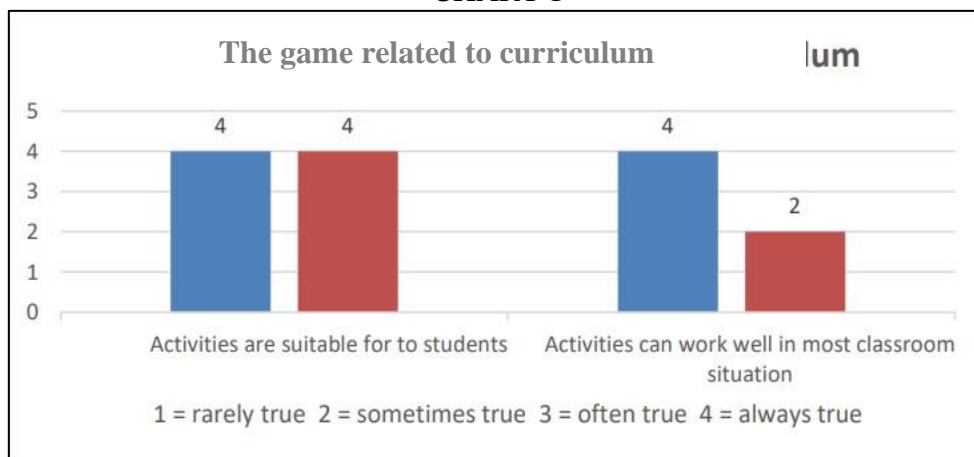


CHART 2

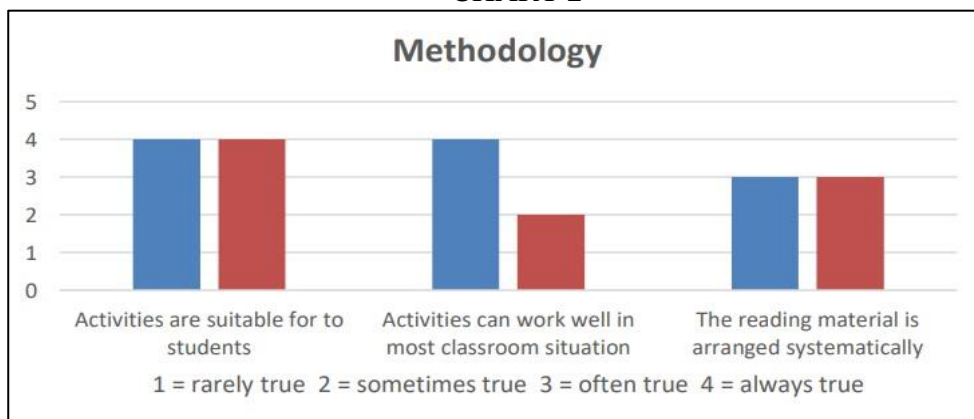


CHART 3

Physical and utilitarian attributes

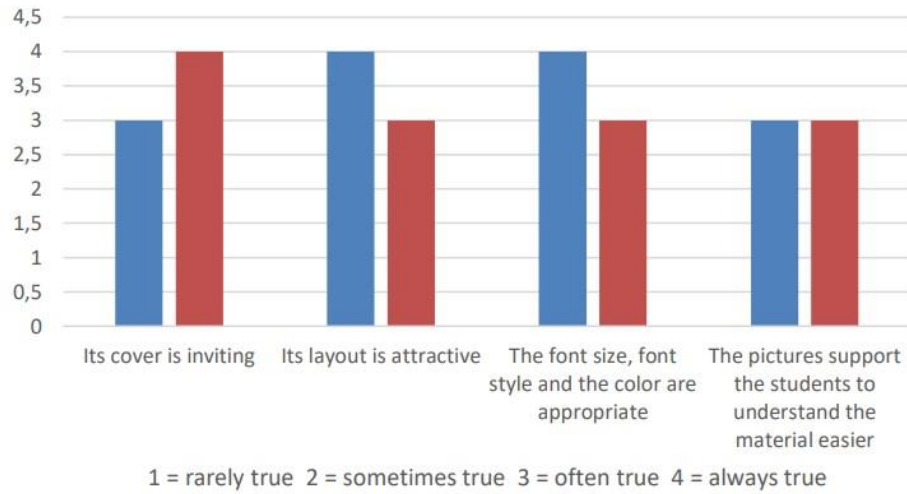


CHART 4

Suitability to Learners

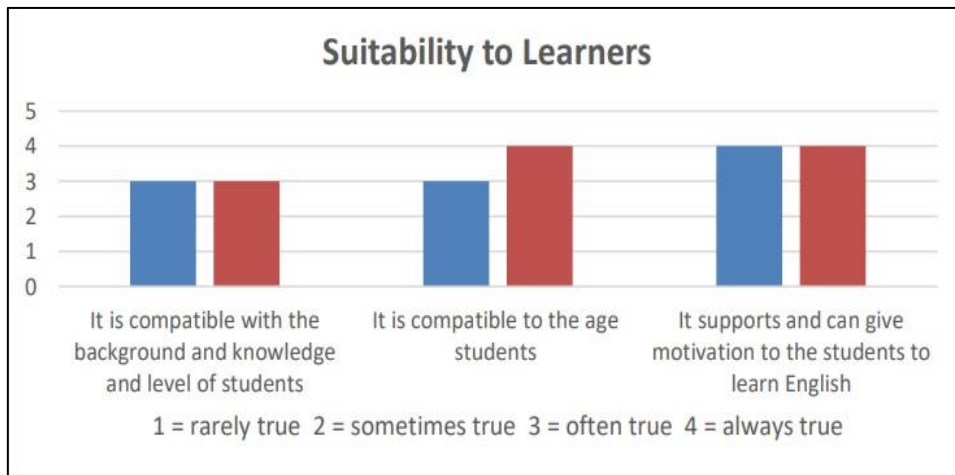
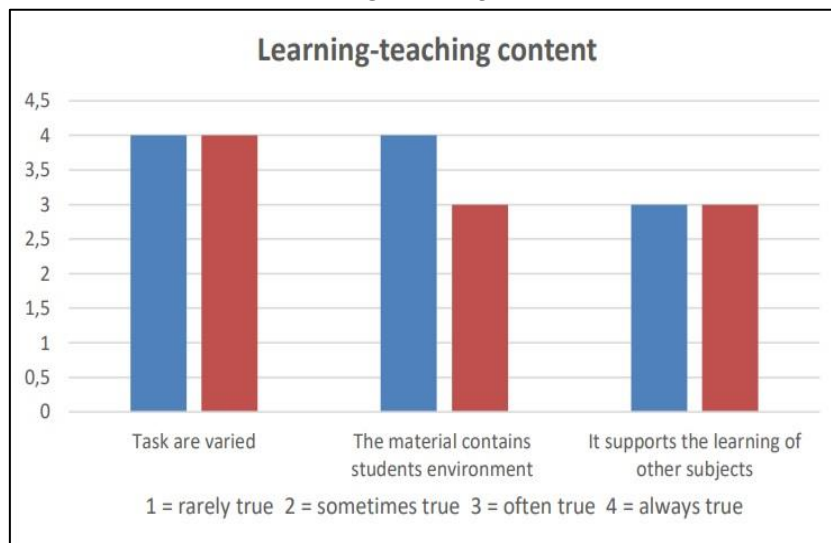


CHART 5

Learning-teaching content



The first section of the checklist, which asks whether the content is related to the Merdeka Belajar curriculum, is displayed in the chart above. The experts' responses, which were frequently true, show how highly the content valued the curriculum.

The above chart shows the content's technique, which is covered in the second section of the checklist. Experts say that the exercises in the book are appropriate for students. Their vocabulary should grow by reading a wide variety of words. They also agree that the book's content was organised in an orderly way. From the start of each chapter to the finish, the book's terminology flows easily. But according to one expert, this book isn't appropriate for all majors—rather, it's only for a particular subset of pupils.

The information in the mobile game "Tebak Kata Inggris" is related to the students' past knowledge, according to all of the experts. The book's expertise of the Vocabulary profession is evident from the reviews. Additionally, the vocabulary used in the text is suitable for the students who are its intended audience. Expert feedback indicates that pupils who are enthusiastic about learning English will also have a greater understanding of vocabulary, which is beneficial for them. One could argue that the kids will benefit from the input.

The chart, which emphasises the material's physical and functional properties, serves as an illustration for the fourth item on the checklist. Based on the results, experts believe this product has an excellent physical appearance. All of these elements come together to create an aesthetically stunning and engrossing mobile game, starting with an eye-catching cover that entices readers. Supporting visuals are included in this material to aid readers in understanding the vocabulary. One of the specialists claims that the book meets every need that pupils have when studying English. For the most part, the information is brief and simple to understand. To make the book more appealing, the colour palette might be rethought. To make this book more entertaining, provide cartoon graphics as supporting imagery.

The results of instruction and topic learning are shown in the following chart. These findings demonstrate that experts' opinions of the variety of tasks covered in the vocabulary material are in agreement. Additionally, the book's content is highly relevant to the students' educational backgrounds, which makes it easier for them to understand each course. There's little doubt that students may utilise the game to increase both their vocabulary and English language skills.

The significance of the material design characteristic has a mean (\bar{x}) value of 3.5, based on the data shown in chart 5. Because the mean is within the range of 3.25 and $\bar{x} \leq 4.00$, the data is categorised as "Very Good". Because the mean (\bar{x}) value of 3.3 is within the range of 3.25, the technique component is rated as "Very Good".

The information gathered from the assessment of the material's appropriateness for learners reveals that the presentation, language, and content all have an appropriateness mean (\bar{x}) value of 3.3. Because the mean falls between 3.25 and 4.25, it is classified as "Very Good." The interview results led to the first conclusion that some students found the game cover to be visually appealing. However, many individuals believed that the cover's contents could be understood from only one image and that additional colours weren't necessary. They like the arrangement, colour, size, and style of the letters. Some of them commented that because the colours were complementary rather than too bright, the readers felt more at ease and driven to finish the game. The writing is the perfect size—neither too large nor too little. The reader's attention was drawn in by layouts, fonts, glossaries, and supporting visuals. The two aspects enhanced the reading experience of the

game and provided vocabulary facts, which is why the students found it appealing. Excellent answers were also provided to the questions in each chapter. They believed that by answering these questions, they might assess their own abilities in relation to the terminology. Another benefit of the true-false question design, according to a student, was that it didn't take too long for students to respond. In general, students are pleased with the outcome. They also included information about how the product was made.

v. Students' Feedback

In addition to the input provided by the experts, several students also offered their first impressions regarding the product. For the product to go to the next level, their initial opinion will be considered part of an initial review throughout the development phase.

Table 4 The Frequencies of The Word Repeated on The Students' Thought and Comment

Question	Response	Frequency
What do you think about the mobile game design layout, colors, fonts, and supporting images?	Interesting design	4
	Good color	3
	Good font size and style	5
	The pictures are interesting and helpful	4
What do you think about the difficulty level, and question?	Easy to understand	5
	Questions are very helpful to understand	5
Does it increase reading interest and increase students knowledge?	Yes	5
What suggestions can you give for developing this book so that it can be even better?	Overall, the book is good	1
	Worth to read	1
	Written in dual languages	1

Based on the data collected from the interviews, it was determined that a number of students thought the book's cover was intriguing to read. Nonetheless, a lot of people thought that one image could convey everything on the cover and that more colors weren't needed.

The way the letters are arranged, colored, sized, and styled pleases them. A few of them mentioned that the book's colors were soothing and not overly vivid, which put the readers at ease and motivated them to read through to the end.

The writing is the perfect size—neither too large nor too little. The reader's attention was drawn in by layouts, fonts, glossaries, and supporting visuals. Because of these two elements, which combined to make the book more fun to read with useful nursing information, students seemed to prefer it.

Excellent answers were also provided to the questions in each chapter. By responding to these questions, they thought they might evaluate themselves in relation to the readings. One student added that the true-false questions were good because they didn't take too long for pupils to respond, which was another advantage of the questions'

design. Students are generally happy with the product. They also provided details regarding the creation of the product.

The researcher created vocabulary resources for educational use. The game helps Four Grade Students SD Integral Luqman Al-Hakim Pontianak learn vocabulary and specialized terminology, so teachers can use the study's material to teach and learn. The researcher thinks the product developed for this study will benefit teachers and students due to its attractive design and student-focused content. The game's objectives and terminology make it useful as supplemental learning material in the classroom or outside of it.

This book contains a dictionary of challenging terms. If they utilize the game alone, students can acquire language outside of class. The game serves as a pocket dictionary for students, delivering only terminology relevant to their subject of study while looking up English words. This dictionary of English terms for four-grade students SD Integral Luqman Al-Hakim Pontianak can be used by students from other vocabulary schools. This product isn't just for SD Integral Luqman Al-Hakim Pontianak's fourth graders. Use it to boost your personal vocabulary.

Ahmed (2017) and Chovancová (2014) found that learning materials for certain majors should be based on students' needs analysis and take their future occupations into account. This study confirms this. This study also uses Tomlinson (2011)'s claim that instructional materials must include relevant and useful teaching points related to students' interests and real-world tasks that require them to use the target language. This study cites Tomlinson's claims since they support its findings. Some students like the product's content and design. Experts and students agreed that the original product met learning objectives. The product helped students. Many kids liked the vocabulary. This boosted their interest in vocabulary science and English. They know vocabulary study can be fun.

The researcher encountered several issues during material production. Words are the first issue. The researcher had to ask the Vocabulary specialist which terminology nurses always used because she was unfamiliar with many. Lexicon or terminology translation is the second challenge. The researcher could not translate their jargon due to its specificity. The researcher assumed the translation followed vocabulary terminology after studying many English vocabulary books. Third, because vocabulary is specialized in a hospital or clinic, getting the proper photos takes time and effort. Because medical facilities cannot take images without patient consent, getting their cooperation may be difficult. Everyone must observe some rules. Two additional stages are needed before this product meets every ADDIE phase. A wider and more diverse set of students must apply and evaluate this book to progress. Other researchers can use the product's data to improve it.

CONCLUSION

Referring to the research and discussion on the previous part, the researcher concludes that:

1. Android-based educational game application used in language learning uses MIT App Inventor Software
2. The display presented in this application is made attractive, simple and easy to understand its use, especially for elementary school students.
3. With this Android-based English educational game, it is easier for students understand English vocabulary well and practically compared to methods previously only used face-to-face methods and books as media his learning.

Based on the study's findings regarding designing mobile game as media to teach

vocabulary in primary school, the researcher made some recommendations. Those recommendation can be described as follow:

1. For the teacher, teachers should design and construct teaching materials in response to the needs analysis they have conducted. It is essential to do a needs analysis by participating in teaching and learning activities in casual talks with students about their goals in learning English and their expectations, needs, and weaknesses. Teachers can work on a specific item or topic and then remark on their findings. It is possible to take one step at a time, if necessary, and repeat the process until it is appropriate for the classroom.
2. For other material developer, To enhance the effectiveness of mobile games for learning English, several recommendations are provided. First, a needs analysis should be conducted to prioritize student needs before developing English language materials. Second, it is crucial to consider the interests and knowledge of students, ensuring the material is engaging and informative. The complexity of vocabulary should match the comprehension level of the audience, and attention-grabbing images should accompany the vocabulary materials. The development process, currently at the design stage, requires further steps of deployment and assessment with more users. Future researchers can build upon this mobile game, "Tebak Kata Inggris," for both educational and entertainment purposes. This game can serve as an educational tool, fostering English proficiency, and can also be used for assessment. It aims to enhance children's interest in learning English, promote their potential, and stimulate innovative thinking. Learning through games like "Tebak Kata Inggris" is expected to be an effective and enjoyable method for young learners.

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