



Original Research

Expose Application: A Development of Learning Media for Optimising Young Learners' English Vocabulary

Galuh Sekararum Setiawan, Sri Widayati, Kartika Rinakit Adhe, & Wulan Patria Saroinsong

Universitas Negeri Surabaya, Surabaya, Indonesia

Article Info

Article history:

Received 19 Oct 2022

Revised 21 Dec 2022

Accepted 31 Jan 2023

Keywords:

Android

Early childhood education

Media

Research Development

Vocabulary



Abstract

The need for English language proficiency in this age of globalisation demands a variety of efforts to learn the lingua franca as soon as possible. The use of media is one of the teaching strategies that kindergarten teachers could employ to maximise the interests and desires of the students in English learning. This study aims to describe the development of process design and validation of a proposed learning media called 'Expose', which is empirically tested with a limited group. 'Expose' is the media that was developed to meet the needs of vocabulary learning at the level of early childhood education. This type of research is R&D (Research and Development) using the ASSURE model. Validation of the content and media expert shows that 'expose' is being 'very good' for stimulation vocabulary for early childhood. Furthermore, empirical tests on a limited group (20 children aged 5-6 years in Lampah, Gresik) The study revealed that using the Expose application media to teach English vocabulary to kids between the ages of 5 and 6 significantly altered learning outcomes. The results of this research underscores how kindergarten teachers must be especially careful in choosing the appropriate vocabulary and learning technology for young children to learn.

Corresponding Author: Setiawan, galuh.18035@mhs.unesa.ac.id

1. Introduction

In this age of globalization, it is crucial to acquire English as a second language. This is because English is a global language that has dominated communication on a global scale, and this fact becomes a key driver behind the idea of English being important to be included in early childhood learning (Premo et al., 2023; Sun et al., 2023). Schools must consider preparedness and an improvement in facing the era given the requirement to study English from a young age. Teaching the pupil in two languages beginning at the Kindergarten Level is one way to do this.

English language learning aims to improve language competence in the form of skills in listening to reading, speaking and also writing in English (Shobikah, 2020). At the kindergarten level, English teaching primarily focuses on listening and speaking skills. This is because other skills are still not fully mastered by children. The existence of a differentiation between what is written and what is spoken when learning English will increase the level of difficulty for the child and not be in line for their growth.

English can be learned encouragingly if it is assisted by the existence of instruction media and not only sticking through lecture strategies (question and answer), because children tend to like games. The existence of learning media can also aid with students to get a meaningful learning experience. Learning through direct experience (real object) or imitation (picture, doll, miniature, etc) help to maximise children learning experience (Arsyad & Fatmawati, 2018). Learning tasks in their school will be enjoyable if they are done while playing. Additionally, Goswami (2022) and Sh et al. (2022) claimed that children who begin learning a new language need time to become acclimated to its sounds and rhythm. It becomes the reason for offering kids a fun learning environment. When games are offered and used during learning activities, a fun

environment may be created that makes learning more engaging. The attractive learning environment will effectively motivate the student. Before they attempt to produce a new language, children require encouragement and approval from their social surroundings.

It has been shown in numerous studies that using electronic-based media helps students' vocabularies. A study which involved the usage of flash application shows that there is an improvement of students' vocabulary mastery after taught by using the media in learning (Ukkas et al., 2019). Furthermore, a development of interactive multimedia using VN (*VlogNow*) and PowerPoint also effective for teaching English vocabulary to young children (Susantini & Kristiantari, 2021).

Android is widely used and relatively simple to access. Teachers can use it to create lessons that are compatible with Android-based smartphones and other mobile devices. Both synchronous and asynchronous information can be transmitted using Android smart devices for learning (Persada et al., 2022). Previous research has suggested that Android-based learning media will shift monotone learning into varied learning. Using android will make it easier for users to learn something, this is because users can access the material, test the ability through applications on Android wherever and whenever (Zatulifa et al., 2018).

In general, kindergarteners are taught based on a monthly theme that has been chosen. This means that the learning provided must be systematic and holistic. No concept-based media that is specifically created for early English learners has yet to be discovered. Therefore, this study was designed to develop android-based application to suite the teachers' need of bilingual materials in teaching the kindergartens. The application being developed is named 'expose: excellent partner to study English'.

The researcher wanted to develop an android application for the introduction of English, especially vocabulary in Early Childhood Education as an interesting learning medium to help children in the learning process. The development of this application is limited only in introducing vocabulary in the context of word meaning, pronunciation, word form which includes listening and repetition and written forms. Word meaning is oriented towards discussing the meaning of a particular vocabulary. Pronunciation trains the correct pronunciation or pronunciation of vocabulary. Listening and repetition are correlated with the repetition of the word heard. Written form knows the written form of a vocabulary. It is hoped that this Android application can motivate and attract children's interest when learning.

2. Literature Review

Learning media is one of the external aspects that greatly affects success during learning activities. Learning media is used for the process of interaction between educators and children so that it can take place effectively, so that children can more easily master the material from the teacher with media encouragement. A good media is a media that can represent the delivery of the material taught. Therefore, it is necessary to look up for theories related to the materials before developing a media.

Learning media consists of various kinds such as learning videos, power points, props, games, etc. Educational games are games that are specifically created as a learning medium to convey material through audio, writing, photos, videos, and animations that can be done by playing while learning easily. Educational games can be used in providing interesting teaching and making children happy when learning (Purnomo, 2020). The android application is one of the output bases that can be selected in the development of educational games.

2.1 Language Acquisition

Language acquisition is an ongoing process in the brain of a young child when he gets his first language, namely his mother tongue. They were born without a language, but by the time they were 4 or 5 years old, thousands of vocabularies, phonological systems, and complex grammatical had been mastered. As contained in the Ministry of National Education No. 58 of 2009 states that children in the age of 4-5 years already have skills within the scope of language acceptance development, can express, as well as the realm of literacy (Adriany & Saefullah, 2015). When accepting language, they have been able to listen to the sentences that others say, understand commands, understand a story, and are able to recognise the treasury of adjectives. When it comes to language disclosure that is related to speaking skills, these children have been able to repeat simple sentences, express their feelings, mention a few words they are familiar with, express their opinion, express a reason and have been able to retell something they heard and knew. Then the last is in the scope of literacy development, they can recognise various symbols, know various sounds, be able to make scribbles and imitate a letter (Hidayah et al., 2021).

According to the theory of nativism, a child does not depend very much on the influence of environmental language. The theory of Nativism was first coined by Chomsky (1957) who argued that the mastery of language in children is natural. According to Chomsky, children are born equipped with a Language Acquisition Device (language acquisition device) known as LAD. This device is considered to be one of the parts of physiology that exists in the human brain that functions as a language processor, and belongs only to humans, therefore only humans can speak (Zghair, 2021). This theory is supported by the theory of Special Language Ability by Lenneberg (1967) in which language is concerned with the problem of the relationship of language and thought. Lenneberg states that humans have a biological inheritance (already carried from birth) in the form of their ability to communicate with verbal language and that ability has nothing to do with intelligence or thinking (Hoshi, 2017).

In contrast to the theory of nativism, the view of behaviourism argues that the mastery of language in children is "bribery". Skinner likens learning a language to verbal behaviour. For him, children are born with an empty state of mind or a flavoured tabula. The child acquires language through the stimuli given to them and the child's response is conditioned through reinforcements. Positive responses will be conditioned through positive reinforcement such as reward or praise and vice versa for negative responses conditioned by punishment (Nor & Rashid, 2018). Similarly, Vygotsky revealed that there is a relationship between the environment and language acquisition (Rublik, 2017). According to him, language is the formation of communication through social interaction which can be considered as the main contributing factor to children's language development (Dastpak et al., 2017). The theory of behaviourism highlights aspects of linguistic behaviour that can be observed directly and the relationship between stimuli (stimulus) and reactions (responses). Effective language behaviour is to make the right reaction to stimuli. This reaction will become a habit if the reaction is justified. In addition to the two theories above, Rod Ellis argues that formal types of language acquisition can get better output (Syaprizal, 2021). The formal thing in question is to take place in the classroom with the guidance of a teacher, material, media and learning aids that have been well prepared and carried out intentionally or consciously.

Based on the theories described above, children's language acquisition is a process of language acquisition in children. The stage of acquiring the first language is the mother tongue and the second is and the foreign language. In addition to mastering the language, children also master bilingualism, both Indonesian regional languages, English, and other foreign languages. The more languages a child speaks, the more aroused the child's language intelligence will be.

2.2 Children's Vocabulary Skills

Vocabulary is a stock of words available to a person. Vocabulary terms can refer to all words in an entire language, to words or phrases used in certain variations such as dialects, registers and terminology (Lelawati et al., 2018). Vocabulary learning as an important thing for aspects of foreign language learning with an emphasis on the meaning of new words (Afzal, 2019). Children experience a rapid period of development of speech and vocabulary when they are 3 years old. This spike in vocabulary or vocabulary spurt includes mastering the addition of word pronunciation and combining words into sentences. The child's mastery of vocabulary increases greatly as he learns new words and new meanings. Children over 3 years old can generally pronounce more than 2500 vocabulary words (Ahada, 2021). On the Australian parenting website *Raisingchildren* (2022) said that children understand more words than they can say and can learn as many as 5-10 new words every day. Tian (2018) also argues that children learn languages very quickly, and between the ages of 2 and 6 they learn an average of 10 new words every day. This is in line with the finding that children learn about eight new words a day from the age of 18 months to about age 6 (Graham, 2018).

Vocabulary mastery includes form, pronunciation, word meaning and usage. The aspects of vocabulary mastery assessment that are emphasised in the form section include those related to listening to and repeating things listened to, listening to specific phonological information, the sound of vowels and consonants, the number of syllables and sound pressure patterns, observing written forms (the first and last letters), spelling collections, paying attention to grammatical information, and copying and organising related vocabulary. In the pronunciation section, the thing that is emphasised is about the pronunciation or pronunciation of vocabulary. A person's mastery of vocabulary is said to be good if they are able to pronounce vocabulary correctly. Word meaning is related to the meaning of vocabulary as well as its relationship with other vocabulary concepts. One of the things that determines a person is said to master vocabulary is his ability to understand the meaning or meaning of vocabulary. Part of usage is focused on the use of related vocabulary.

3. Method

This study uses Research and Development or R&D. This technique is an approach to making new products or making improvements to a product (Wynarti, 2018). The purpose of this study is to determine the development, feasibility, and effectiveness of application to introduce English to children aged 5-6 years. The design of this study used the ASSURE model. According Laili et al. (2020) the ASSURE method was first created by Heinrich in 2002 as a core learning model in the field of technology. This model was chosen because it includes all elements, not only focusing on the design and implementation of a medium but involving student participation to optimise the benefits provided.

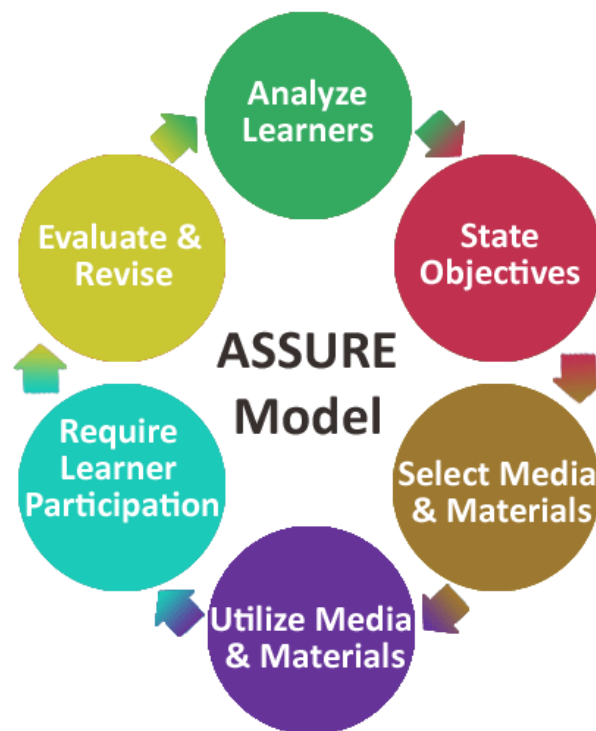


Figure 1. ASSURE model concept

This research was conducted in six stages, i.e., analyse learner characteristics, state objectives, select media and materials, utilise media and materials, require learner participation, and the last stage evaluate and revise. At the utilise media and materials stage, the product of 'expose' validated by expert of content and media. The outcomes are transformed into a five-level scale of product achievement. Furthermore, at the require learner participation stage, this media carried out in a limited group of experiment, 20 children from Lampah, Gresik. All 20 of these kids are members of group B. The choice of school was made with the knowledge that it has exposed students to English as a foreign language (EFL) so that they were not unfamiliar with learning a language. To determine the effectiveness of the media, data analysis was carried out to calculate the pretest and posttest. The data were analysed through non-parametric techniques through the Wilcoxon signed rank test (Triwiyanti et al., 2019).

1) Analyse Learner Characteristics

At this stage, researchers conduct interviews to find out the existing problems. The interview was used to find detailed answers from kindergarten teachers in the Gresik area as research respondents. The specification includes the use of learning media and the problems that exist when teaching English to children 5-6 years old. Referring to the results of the interview, it was found that children generally feel happier and easier to understand English through the use of media. However, the reality that occurs is the lack of material and media that is specifically for those who want to learn English at an early age that is in accordance with the concept of teaching (thematic).

2) State Standards and Objectives

At this stage, researchers compile the targets to be obtained and adjust the teaching material to the scope of English vocabulary in children aged 5-6 years. One such theme will consist of stories, vocabs, and performers that can help in stimulating the child's English vocabulary. The target set is that children can master 8 new vocabularies in one theme to be learned. The selection of a vocabulary target of 8 words is based on Gletman's opinion that the average child learns 8 new vocabulary every day (De Wilde et al., 2020). The chosen vocabulary is a vocabulary that is related to daily life with children so that children are expected to learn it more easily. The first theme contained in the Expose application is about family where the target words that children can learn are mother, father, cake, bake, read, book, ball, and doll. The second theme is about playing with friends with the words house, bedroom, friend, butterfly, playdough, crayon, car, and flower. The target of this application is that children can master vocabulary in the context of word meaning, pronunciation, word form which includes listening and repetition and also written form.

3) Select Strategies, Technology, Media, and Materials

Researchers chose new media, namely media based on android applications. In the early stages of making this application, namely compiling material designs, followed by designing scenarios in the form of storyboards. Storyboards are useful as a guide so that the stages make the application easier. Then, to find out the quality value of the application used; an assessment instrument is compiled. Here is the instrument of the observation sheet in the child:

Table 1. Observation Instrument

Indicator	Score
Children are able to repeat English vocabulary according to the example in the Expose application.	
The child is able to pronounce English vocabulary with a clear articulation.	
Children are able to read English vocabulary with proper pronunciation.	
Children are able to interpret English vocabulary into Indonesian correctly.	
Children are able to translate Indonesian vocabulary into English appropriately.	
The child is able to show the image according to the audio referred to in the Expose application.	
Children are able to choose images according to the word referred to in the Expose application.	

The assessment of each instrument is measured using a rating scale with the score of 1 to 4. In this study, a score of 1 was interpreted as BB (Undeveloped), a score of 2 means MB (Starting to Develop), a score of 3 is BSH (Developing as Expected) and a score of 4 is interpreted as BSB (Developing Very Well). Later the minimum score that can be obtained is 7 with a maximum score of 28.

Valid and reliable instruments are needed to obtain reliable research results. Valid means that the instrument can be used to measure what should be measured. Reliable means that if the instrument is used multiple times to measure the same object it will produce the same data as well. Validity and reliability tests need to be held on the measuring instruments to be used in the study. This test was tested in a different place with the same characteristics as the study site. Instrument testing used a sample of 20 children. The results of testing the validity and reliability of the indicators in this study all used the SPSS Statistics 25.0 computer program tool.

4. Results

The following provides an explanation of development outcomes using the ASSURE approach. This section will explain the next three stages, i.e., utilise media and materials, require learner participation, and the last stage evaluate and revise:

Table 2. Instrument's Validity Result

Item	r_{score}	$r_{\text{table}} 5\% (20)$	Sig.	Criteria
1	0.886	0,444	0.000	Valid
2	0.893	0,444	0.000	Valid
3	0.717	0,444	0.000	Valid
4	0.871	0,444	0.000	Valid
5	0.896	0,444	0.000	Valid
6	0.703	0,444	0.001	Valid
7	0.793	0,444	0.000	Valid

The validity test results show that all instruments have a calculated R score > R table. This can be interpreted to mean that the 7 existing instruments are declared valid.

Table 3. Instrument's Reliability Result

Cronbach's Alpha	N of Items
.918	7

The reliability test results showed that all instruments had an Alpha Cronbach coefficient score of 0.918. Thus, the instrument used as an observation sheet is considered reliable because it has a score higher than 0.6.

1) Utilise Media and Materials

At this stage the researcher uses new media (application), the media used is android application-based in the form of audio-visual material used based on the capacity of children aged 5-6 years in the scope of English. This step is the stage of producing predetermined application. The following are examples of activities offered by 'expose'.



Figure 2. Opening page

The opening page on this Expose application as the initial display to start with the 'start' button then continued with the theme menu.



Figure 3. Theme page

This theme page consists of several themes that can be chosen by the child. The purpose of this theme page is variations so that children do not get bored with a theme. The given theme has an equivalent level of difficulty and is not tiered. This is in accordance with the original purpose, namely as a medium for introducing English vocabulary, so that all vocabulary selected in the theme is an easy vocabulary and close to the child. In one theme there will be stories, vocabs, and games.



Figure 4. Menu page

This menu page displays a selection of activities contained in one theme, namely story, vocab, games.



Figure 5. Story display

The story menu features an illustrated story equipped with audio. The purpose of the story is to introduce vocabulary in the form of sentences so that children know the concept of words.



Figure 6. Vocab display

In the vocab menu there is an image that when touched will appear writing and sound. The goal is to introduce vocabulary one by one so that children can focus. The vocab menu can also train children's English pronunciation with sprawling pronunciation.

Due diligence aims to obtain product validation and expert advice. The data is obtained through validator answers in the questionnaire. Then to calculate the validation from the experts the formula used is as follows:

$$P = \frac{\sum x}{\sum i} \times 100\%$$

Description:

P	: Percentage of feasibility
$\sum x$: Total value obtained
$\sum i$: Total maximum expected value
100%	: Constant number

The feasibility level of this game is measured through the validity criteria, namely:

Table 4. Product Feasibility Level

No	Percentage	Feasibility	Description
1	81% - 100%	Very good	Much needed/very worth it
2	61% - 80%	Good	Needed/worthy
3	41% - 60%	Fair	Sufficiently needed/decent enough
4	21% - 40%	Not good	Less needed/not worth it
5	0% - 20%	Very not good	Not needed/not worth it

After the design and application of expose are completed, proceed with conducting due diligence from validators to find out the feasibility of the application to be applied to children. The value of the overall percentage of validation of experts is 96.49% and is at the interval of 81% - 100%. In accordance with the product feasibility range by [Hasan et al. \(2013\)](#), the results of the Expose application validator assessment are in the category of very good and very feasible or urgently needed. The details of the score assessment can be seen in [Figure 7](#) and [Figure 8](#).

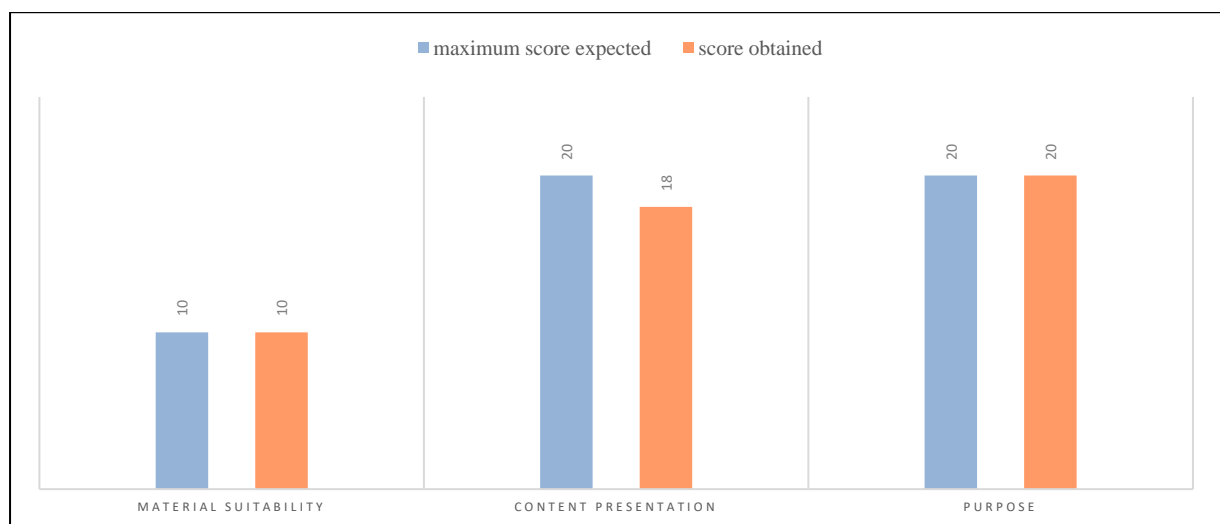


Figure 7. Material Expert Result

The results of the material experts have given a review get a percentage of the value of 96%. The percentage obtained is included in the category of very appropriate and information is needed. So, in terms of material, this Expose application is suitable for children aged 5-6 years.

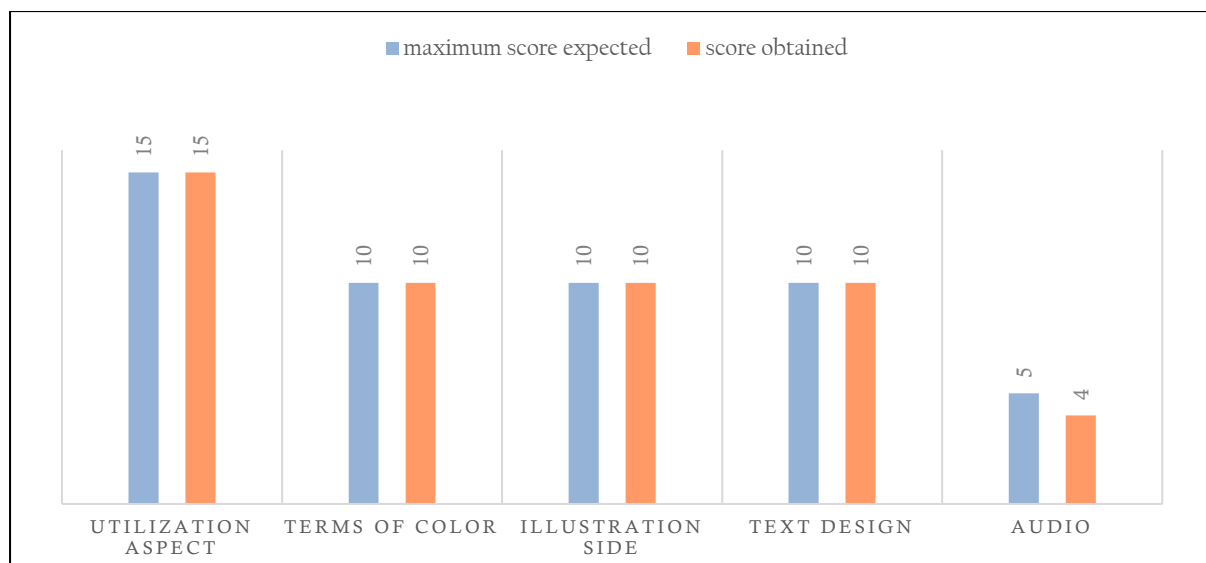
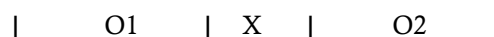


Figure 8. Media Expert Result

The acquisition of assessments from media experts on the products developed received a score of 98%. That percentage is very good, and the information is very decent. Thus, in terms of media assessment, it can be concluded that Expose application is suitable for use in introducing English vocabulary for children aged 4-5 years.

2) Require Learner Participation

This stage is carried out by involving students directly in teaching and learning activities. The participants are 20 children those aged 5-6 years (group B) at Lampah, Gresik. Test the effectiveness of the product used is pre-Experimental design (nondesign) research type one-Group pretest-posttest design. The trial process begins with a pre-test, then treatment is carried out. After that, researchers will conduct a post-test to measure children's vocabulary skills. Pre-test and post-test are intended to see the difference after treatment.



(Sugiyono, 2019)

Description:

O1 : pre-test

X : treatment

O2 : post-test

To determine the effectiveness of the application, data analysis was carried out to calculate the pretest and posttest. The data were analysed through non-parametric techniques through the Wilcoxon signed rank test (Triwiyanti et al., 2019). The test is useful in finding out whether there is a difference in scores before and after the use of application. The hypotheses are:

- a) H_0 : there is no significant difference in learning outcomes before and after the use of Expose application to introduce English vocabulary for children aged 5-6 years in Lampah Village, Kedamean District, Gresik, East Java.
- b) H_a : there are significant differences in learning outcomes before and after the use of Expose application to introduce English vocabulary for children aged 5-6 years in Lampah Village, Kedamean District, Gresik, East Java.

To find out the effectiveness of the Expose application, the trial result data in the form of pretest and posttest needs to be tested. Researchers performed the Wilcoxon Test manually with the H_0 test criteria rejected if $|Z| > Z_{\alpha/2}$ and the provisions of the critical regions are as follows:

$$N = 20$$

$$\alpha = 0,05$$

$$Z_{\alpha/2} = 1,96$$

Table 5. Wilcoxon Test Count T Table

Sample	Pre	Post	(d)	Rank	+	-
1	9	26	17	19	19	-
2	10	23	13	17	17	-
3	7	27	20	20	20	-
4	7	19	12	15.5	15.5	-
5	11	25	14	18	18	-
6	18	19	1	1.5	1.5	-
7	20	21	1	1.5	1.5	-
8	11	22	11	13	13	-
9	16	24	8	8.5	8.5	-
10	17	21	4	3	3	-
11	17	24	7	6	6	-
12	16	22	6	4	4	-
13	14	26	12	15.5	15.5	-
14	15	22	7	6	6	-
15	17	26	9	10.5	10.5	-
16	14	23	9	10.5	10.5	-
17	16	24	8	8.5	8.5	-
18	18	25	7	6	6	-
19	13	24	11	13	13	-
20	14	25	11	13	13	-
Σ					210	0

From the table above, it is obtained that the number of ranks marked (+) is 210 and the number of rankings marked (-) is 0. Because 0 is the value of the smallest number of ranks, $T = 0$. Before calculating the test statistics, the variance correction value must be determined first. This is done because there are data in the same ranking.

Table 6. Variety Correction Value

Ranking	t_j	$t_j(t_j - 1)(t_j + 1)$
1,5	2	6
6	3	24

Ranking	t_j	$t_j(t_j - 1)(t_j + 1)$
8,5	2	6
10,5	2	6
13	3	24
15,5	2	6
Σ		72
$\frac{1}{2} (t_j(t_j - 1)(t_j + 1))$		36

Because there is the same rank, the formula will be adjusted to the correction of the variety. Statistical calculation of wilcoxon test:

$$\begin{aligned}
 Z &= \frac{T - \frac{N(N+1)}{4}}{\sqrt{\frac{N(N+1)(2N+1)}{24} - \frac{1}{2}(t_j(t_j-1)(t_j+1))}} \\
 &= \frac{0 - \frac{20(20+1)}{4}}{\sqrt{\frac{20(20+1)(2 \times 20+1)}{24} - 36}} \\
 &= \frac{-105}{26,105} \\
 &= -4,022 \\
 |Z| &= 4,022
 \end{aligned}$$

Obtained the value of $|Z| = 4,022$ which is greater than $Z_{\alpha/2} (1,96)$, then the decision taken is H_0 rejected, and H_a accepted. Based on this, it can be concluded that there are significant differences in learning outcomes before and after the use of Expose application to introduce English vocabulary for children aged 5-6 years in Lampah Village, Kedamean District, Gresik, East Java.

4) Evaluate and Revise

Evaluation is the stage of improvement after the activities carried out are carried out. At this evaluation stage, get input to improve the audio quality so that it sounds clear and clear. Experts suggest that other themes can be further developed. In addition, from product trials to children, researchers saw that the products developed were very accepted by children, because they felt happy, especially since the application used was in accordance with the times and were familiar to children. However, because of the great enthusiasm, the teacher must be able to condition the classroom atmosphere so that learning continues to run smoothly. In addition, teachers should repeat sentences and vocabulary in the application slowly accompanied by explanations Indonesian so that children can understand.



Figure 8. Documentation of the Expose application trial with 20 children.

5. Discussion

This study obtained the results of a product in the form of an application that can be installed on an Android smartphone and named Expose with the aim of introducing English vocabulary. This development research has been carried out based on a review of the learning process in the field that lacks media in the English language learning process. The selection of material is in line with the child's ability, which focuses on listening and speaking skills.

Expose application is equipped with audio and image illustrations that make it easier for children to receive the information they will get. The children can listen to the pronunciation accurately, see pictures, and read transcriptions that describe the substance of the photographs. The children's ability to recognise the vocabulary of a foreign language, in this case English, can be helped through visual and aural stimulus. The child is also interested and enthusiastic about receiving the material provided. In line with the statement from [Hooshyar et al., \(2021\)](#) that learning carried out using android-based educational game can stimulate children's curiosity in solving problems and children's appeal to visuals and increase children's knowledge in technological development.

Early childhood learning and development are supported by the presence of media since young children tend to enjoy playing and still think in terms of the real or concrete, necessitating the use of media or other tools to present abstract ideas in engaging and enjoyable ways. Learning activities should be focused on student aptitude and age development, such as gradually developing while playing and learning (by playing more) to be learning while playing (learning more).

Overall, the evaluation of the hypothetical application expose falls into the very good category. Expert evaluation reveals that content scored 96% and media scored 98%, both of which fall under the excellent category. The Expose application was rated excellent, and it can be used in the learning process because the overall percentage of expert opinions is 97%. Referring to wilcoxon test results $|Z| = 4,022$ indicating that there is a difference in the score of the results from before and after the test. This shows that Expose application can optimise English vocabulary competence for children aged 5-6 years. This is in accordance with [Nurrita \(2018\)](#) on the benefit of using media are namely increasing children's learning movements, increasing children's understanding, increasing children's activeness, and not saturating.

Children's enthusiasm for the application is very large as you can see in Figure 6, this is evidenced by the activeness of children during the implementation of application trials. The enthusiasm of children requires teachers to be able to condition the classroom atmosphere so that learning continues to run smoothly. In addition, teachers should repeat sentences and vocabulary in the application slowly accompanied by Indonesian explanations so that children can understand. Since both first language and second language have their respective levels of need in communication (Darasawang & Reinders, 2021), there is an implication that the child's first language and second language proficiency will differ significantly. In contrast to learning a second language, a youngster will first master their first language. This is due to the fact that the first language refers to the language the child has mastered since birth (since birth).

In mastering English vocabulary children are easier to understand subject and nouns. In the first theme, children have difficulty in understanding the verbs that are prepared, namely 'bake' and 'read'. One of them is A who is sample number 11; Child A mentioned that reading a book in English is bake, and vice versa when asked the meaning of bake the child answers reading a book. This is possible because the book has almost the same pronunciation as bake. On the other hand, subject words such as father and mother can be easily understood by children. The words father and mother are often taught to children, especially when the child enters the family theme so that the child is familiar with the word.

According to Wijayanto and Siradj (2017), there is a distinct category of games known as educational games, which are games that are intended to be both entertaining and instructional. The traits of the learner, particularly kindergarteners who enjoy playing and learning as well as having a high level of imagination, can be adapted to an educational game. Research from Akhadiyah and Mulyani (2017) demonstrates how effectively using educational games has been produced in this research to increase early children reading readiness. That game offers various advantages in terms of the learning environment. One of them is incorporating amusement into the educational process and fostering an engaging learning environment without pressuring students to break down the subject matter in an abstract way. (Prahmana et al., 2012; Shabalina et al., 2015; Barzilai & Blau, 2014).

This trial is proof that the child can acquire language through stimulation and reinforcement (reinforcement). This supported by Nor and Rashid (2018, p. 162) who state, "A positive response will be conditioned through positive reinforcement like reward or praise and vice versa." Early childhood has a number of important aspects that educators and parents should be aware of, including: (1) needing security, rest, and healthy food; (2) living in a world that is programmed to imitate; (3) requiring practice and routine; (4) having a need to ask questions and get answers; (5) children's thinking differs from adults'; (6) requiring hands-on experience; (7) trial and error is the main thing in learning; and (8) playing is the world (Maisarah, 2019). As a result, play activities or the availability of gaming instruments can complement learning activities in early infancy with the intention of simultaneously training numerous developmental components.

Use of educational games or learning activities is not only advised for teachers in schools but also for all parents and other adults who frequently engage with youngsters. According to Jung's opinion (2017) that early childhood educators and other family member can assist parents in engaging in at-home activities including playing, reading, and doing educational activities with their kids. This is so that the activity can promote the crucial linguistic interaction that kids need to improve their literacy.

To keep the learning progress on course, applications must be built as well as possible. In their research, Huang et al. (2019) advise educators to design instructional games with a variety of activities to produce engaging playing experiences. In particular, kindergarten teachers must carefully consider the choice of words that are taught, such as nouns and verbs, while creating English-language media to make it easier for kids to understand. Apart from that, additional factors that must be taken into account for Android-based media goods to be better include the theme, the child's surroundings, and the child's personality.

6. Conclusion

This study has produced a new application called Expose, a concept-based media that systematic and holistic created for early English learners in kindergarten. Expose application is limited only in introducing vocabulary in the context of word meaning, pronunciation, word form which includes listening and repetition and also written forms. The application is validated by material matter experts and instructional media experts, based on the main components of learning media and gained an average score of 97%. The empirical test involves 20 children aged 5-6 years in Lampah, Gresik. According to the findings, children between the ages of 5 and 6 can improve their English vocabulary skills through media 'expose'.

Acknowledgment

This research was supported by TK Dharma Wanita Persatuan, Kedamean sub-district, Gresik Regency and Early Childhood Education Teacher Education Department of Universitas Negeri Surabaya, Indonesia. Therefore, the authors would like to express their sincere gratitude. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of any respected institution.

References

- Adriany, V., & Saefullah, K. (2015). Deconstructing human capital discourse in early childhood education in Indonesia. *Global perspectives on human capital in early childhood education: Reconceptualizing theory, policy, and practice*, 159-179.
- Afzal, N. (2019). A Study on Vocabulary-Learning Problems Encountered by BA English Majors at the University Level of Education. *Arab World English Journal*, 10(3), 81–98. <https://doi.org/10.24093/awej/vol10no3.6>
- Ahada, I. (2021). Investigating students perception of gamification on vocabulary learning using Marbel. *Linguista: Jurnal Ilmiah Bahasa, Sastra Dan Pembelajarannya*, 5(2), 93–105. <https://doi.org/10.25273/linguista.v5i2.10387>
- Akhadiyah, M., & Mulyani, M. (2017). Pengembangan Multimedia Permainan Edukatif Tingkatkan Minat dan Kesiapan Membaca pada Anak-Anak Usia Dini. *Seloka: Jurnal Pendidikan Bahasa dan Sastra Indonesia*, 6(3). <https://doi.org/10.15294/seloka.v6i3.20228>
- Arsyad, M. N., & Fatmawati, F. (2018). Penerapan Media Pembelajaran Berbasis Multimedia Interaktif Terhadap Mahasiswa IKIP Budi Utomo Malang. *Agastya: Jurnal Sejarah Dan Pembelajarannya*, 8(2), 188. <https://doi.org/10.25273/ajsp.v8i2.2702>
- Barzilai, S., & Blau, I. (2014). Scaffolding game-based learning: Impact on learning achievements, perceived learning, and game experiences. *Computers & Education*, 70. <https://doi.org/10.1016/j.compedu.2013.08.003>
- Chomsky, N. (1957). "Syntactic Structures." The Hague/Paris: Mouton.
- Darasawang, P., & Reinders, H. (2021). Willingness to communicate and second language proficiency: A correlational study. *Education Sciences*, 11(9), 517. <https://doi.org/10.3390/educsci11090517>
- Dastpak, M., Behjat, F., & Taghinezhad, A. (2017). A Comparative Study of Vygotsky's Perspectives on Child Language Development With Nativism and Behaviorism. *International Journal of Languages' Education*, 5(2), 230–238. <https://doi.org/10.18298/ijlet.1748>
- De Wilde, V., Brysbaert, M., & Eyckmans, J. (2020). Learning English through out-of-school exposure. Which levels of language proficiency are attained and which types of input are important?. *Bilingualism: Language and Cognition*, 23(1), 171-185. <https://doi.org/10.1017/S1366728918001062>
- Graham, J. (2018). *Your toddler is learning 8 new words a day. Here's the best way to make use of that language.* <https://www.deseret.com/2018/9/18/20653780/your-toddler-is-learning-8-new-words-a-day-here-s-the-best-way-to-make-use-of-that-language#:~:text=From>
- Goswami, U. (2022). Language acquisition and speech rhythm patterns: an auditory neuroscience perspective. *Royal Society Open Science*, 9(7), 211855. <https://doi.org/10.1098/rsos.211855>
- Hasan, I. F., Ridwan, M., & Riana, N. (2013, April). Entrepreneurial Skills Through Technology Ng-Braille (Nomographs Braille) as Learning Media Operations Additive and Reduction Numbers Round for Blind Children. In *Annual International Scholars Conference in Taiwan*.
- Hidayah, U. K., Jazeri, M., & Maunah, B. (2021). Teori Pemerolehan Bahasa Nativisme LAD. *BELAJAR BAHASA: Jurnal Ilmiah Program Studi Pendidikan Bahasa Dan Sastra Indonesia*, 6(2), 177–188. <https://doi.org/10.32528/bb.v6i2.5539>
- Hooshyar, D., Malva, L., Yang, Y., Pedaste, M., Wang, M., & Lim, H. (2021). An adaptive educational

- computer game: Effects on students' knowledge and learning attitude in computational thinking. *Computers in Human Behavior*, 114(March 2020), 106575. <https://doi.org/10.1016/j.chb.2020.106575>
- Hoshi, K. (2017). Lenneberg's Contributions to the Biology of Language and Child Aphasiology: Resonance and Brain Rhythmicity as Key Mechanisms. *Biolinguistics*.
- Huang, B., Hew, K. F., & Lo, C. K. (2019). Investigating the effects of gamification-enhanced flipped learning on undergraduate students' behavioral and cognitive engagement. *Interactive Learning Environments*, 27(8). <https://doi.org/10.1080/10494820.2018.149565>
- Jung, E. (2017). The Development of Reading Skills in Kindergarten Influence of Parental Beliefs About School Readiness, Family Activities, and Children's Attitudes to School. *International Journal of Early Childhood*, April 2016. <https://doi.org/10.1007/s13158-016-0156-2>
- Laili, N., Vibraena, V. M., Silmi, N., Ummah, U. S., & Efendi, M. (2020). Mantuku (Manekin Tubuhku) : As an Adaptive Media for Sex Education to Toddlers. *Education And Parenting*.
- Lelawati, S., Dhiya, S., & Mailani, P. N. (2018). The Teaching Of English Vocabulary To Young Learners. *PROJECT (Professional Journal of English Education)*, 1(2), 95–100.
- Lenneberg, E. H. (1967). "Biological Foundations of Language." Wiley.
- Maisarah. (2019). Matematika dan Sains Anak Usia Dini (Edisi Revisi). Medan: Akasha Sakti.
- Nor, M. N., & Rashid, R. A. (2018). A review of theoretical perspectives on language learning and acquisition. *Kasetsart Journal of Social Sciences*, 39(1), 161–167. <https://doi.org/10.1016/j.kjss.2017.12.012>
- Muzayyanna Zatulifa, Riswandi, Fitriawan, H., & Akla. (2018). Application based Android as a Development of German Learning Media. *International Journal of Early Childhood Special Education*, 8(4), 66–72. <https://doi.org/10.9756/INT-JECSE/V13I2.211087>
- Nurrita, T. (2018). Pengembangan Media Pembelajaran Untuk Meningkatkan Hasil Belajar Siswa. *MISYKAT: Jurnal Ilmu-Ilmu Al-Quran, Hadist, Syari'ah Dan Tarbiyah*, 3(1), 171. <https://doi.org/10.33511/misykat.v3n1.171>
- Persada, S. F., Prasetyo, Y. T., Suryananda, X. V., Apriyansyah, B., Ong, A. K., Nadlifatin, R., ... & Ardiansyahmiraja, B. (2022). How the Education Industries React to Synchronous and Asynchronous Learning in COVID-19: Multigroup Analysis Insights for Future Online Education. *Sustainability*, 14(22), 15288. <https://doi.org/10.3390/su142215288>
- Purnomo, I. I. (2020). Aplikasi Game Edukasi Lingkungan Agen P VS Sampah Berbasis Android Menggunakan Counstruct 2. *Jurnal Ilmiah*, 11(2), 86–90.
- Prahmana, R. C. I., Zulkardi, Z., & Hartono, Y. (2012). Learning multiplication using indonesian traditional game in third grade. *Journal on Mathematics Education*, 3(2). <https://doi.org/10.22342/jme.3.2.1931.115-132>
- Premo, E., Pilarz, A. R., & Lin, Y. C. (2023). Pre-kindergarten teachers' family engagement practices and English Language Learners' attendance and early learning skills: Exploring the role of the linguistic context. *Early Childhood Research Quarterly*, 63, 1–14. <https://doi.org.ezp.lib.cam.ac.uk/10.1016/j.ecresq.2022.10.005>
- Raisingchildren. (2022). Language development: 5-8 years. In *Raisingchikren.net.au*. <https://raisingchildren.net.au/school-age/development/language-development/language-5-8-years>
- Rublik, N. (2017). Language Acquisition and Cultural Mediation: Vygotskian Theory. *Asia Pacific Journal of Contemporary Education and Communication Technology*, 3(1), 334–345. www.apiar.org.au
- Sh, S., Kh, R. Z., & Khalikova, L. U. (2022). New Ways to Learn English. *Eurasian Research Bulletin*, 14, 7–11.
- Shabalina, O., Mozeliuss, P., Malliarakis, C., & Tomos, F. (2015). Creativity-Based Learning versus Game-Based Learning. https://doi.org/10.1007/978-3-319-23766-4_57

- Shobikah, N. (2020). The competencies in English. *Journal of Research on English and Language Learning*, 1(1), 23–36.
- Sugiyono. (2019). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Alfabet.
- Sun, B., O'Brien, B. A., Arshad, N. A. B., & Sun, H. (2023). The contribution of intrinsic motivation and home literacy environment to Singaporean bilingual children's receptive vocabulary. *Reading and Writing*, 1-29. <https://doi-org.ezp.lib.cam.ac.uk/10.1007/s11145-022-10409-9>
- Susantini, N. L. P., & Kristiantari, M. G. R. (2021). Media Flashcard Berbasis Multimedia Interaktif untuk Pengenalan Kosakata Bahasa Inggris pada Anak Usia Dini. *Jurnal Pendidikan Anak Usia Dini Undiksha*, 9(3), 439. <https://doi.org/10.23887/paud.v9i3.37606>
- Syaprizal, M. P. (2021). Proses Pemerolehan Bahasa Pertama Pada Anak. *Jurnal AL-HIKMAH*, 1(2), 75–86. <https://doi.org/10.24114/kjb.v10i4.30772>
- Tian, C. (2018). How Toddlers Learn Words. In *parenting.firstcry.com*. <https://parenting.firstcry.com/articles/how-toddlers-learn-words/>
- Triwiyanti, Ardina, T., Maghfira, R., & Amalia, N. (2019). *Statistika Induktif: Wilcoxon Test, Dependent Test and Independent Test*. Universitas Gadjah Mada. <https://doi.org/10.13140/RG.2.2.34721.07525>
- Ukkas, M. I. A., Cahyadi, D., & Nurabdiansyah. (2019). *PERANCANGAN MEDIA PEMBELAJARAN BAHASA INGGRISINTERAKTIF PictionaryUNTUK ANAK USIA DINI*.
- Wijayanto, P. W., & Siradj, Y. (2017). The Educational Game “Indonesian Tribes” for the Kindergarten Students. *International Journal of Pedagogy and Teacher Education*, 1(1), 27– 36. <https://doi.org/10.20961/ijpte.v1i1.8456>
- Wynarti, A. I. (2018). *Pengembangan Permainan Charades Sebagai Media Pembelajaran Materi Jenis-Jenis Ritel Kelas XI Pemasaran di SMK Negeri 2 Buduran*. 6(3).
- Zghair, I. A. (2021). Theories of Acquisition of Language: Towards a Karmik Linguistic Approach Ibrahim. *International Journal of Innovations in Liberal Arts (IJILA)*, 1(1).