Designing Snake and Ladder Game as an Instructional Media to Teach English Vocabulary

Novelia Febri Pratama1*, Moh. Arif Mahbub2, Fatih Al Fauzi3

1,2,3 Universitas Islam Jember, Indonesia  
1Noveliapratama372@gmail.com*; 2rifelbarzmahbub@gmail.com; 3fatih.alfauzi16@gmail.com  
*corresponding author

Abstract. This study is categorized as Educational Research and Development (RnD). The employment was purposed to embody the appropriate instructional media to teach English vocabulary for Intermediate students’ level of Yoko’s English course, Ambulu. The research product named Gumiho snake and Ladder game. That was designed based on the competence of Yoko’s English Course, the finding data gathered through need analysis and Contextual Teaching Learning (CTL). Concerning to these, a set of procedures proposed by Borg and Gall are being applied in this study. The research instruments used to collect the data consisted of Course, Focused Group Discussion (FGD), interview, questionnaires, observation sheet and checklist validation forms. Expert validation was carried out to evaluate the game developed for the product betterment. Moreover, to know the applicability of the materials and students’ responses, the real try-out phase on some selected chapters during the research period had been conducted. For the reasons, the Snake and Ladder game as a instructional media for Yoko’s program students is ready to be applied in teaching learning activity.

How to cite this paper:  

INTRODUCTION  
Vocabulary plays important role in language learning. Vocabulary is also an essential skill for learning to read, speak, write and listen. Without sufficient vocabulary, people cannot communicate and express their feelings both in the form of spoken and written effectively. Similarly, the students of Yoko’s English Course Ambulujember have also the same problem; that is English vocabulary mastery. Further, based on the result of pre-observation and pre-interview conducted by researcher on 28 November 2016, most of them still do not master adequate vocabulary. The difficulties they face in vocabulary learning also widely vary. They face difficulties in (1) pronouncing the words, (2) spelling,
(3) understanding the English grammatical verb form, (4) understanding the appropriate meaning, and (5) language use based on the context of situation. Needless to say it indicates that the students' vocabulary mastery is very limited and it highly requires to be improved. Accordingly, it is a must for the English teachers to design interactive method in teaching and learning process that is appropriate with the condition of the class. In brief in conclusion, the researcher would conduct a research entitled "Designing Snake and Ladder game as an Instructional Media to teach English Vocabulary for Intermediate student level of Yoko’s English course". Hopefully, the students will be very enthusiastic and highly-motivated so that they can understand the meaning of words easily, spell and pronounce the words correctly.

This research aimed to design snake and ladder game to develop as an instructional media to teach English vocabulary for Intermediate student level of Yoko’s English course. And the problem in this research is formulated as follows: How can snake and ladder game develop as an instructional media to teach English vocabulary for Intermediate student level of Yoko’s English course?

Media in this term refer to the teaching tools which present the subjects matter that supporting the teachers' work. The media in this research is in form the instructional media game with the content is only focused on enlarge vocabulary. According Romiszowsky (1988:9) stated that instructional media are the mode that set up learners learning activity. Also, According to Wright, Bitteridge, and Buckby “games can be found to give practice in all the skills (reading, writing, listening, and speaking), and for many types of communications (e.g. encouraging, criticizing, agreeing, explaining)” (1997:1). In this framework games provides the learners with the learning experiences that are purposefully designed to serve for achievement of the students' learning objectives.

Brown (2007:1) defines that vocabulary as a list or set of word for particular language or a list or set of word that individual speakers of language might use. Hornby states another definition (1986:959) that vocabulary as a total number of words, which make up a language. That is to say that vocabulary is component of language which makes up the language and make up the language. Vocabulary is the knowledge of meanings of words. Vocabulary is one of the most important elements that make up the language. It is because vocabulary is the key to learners understanding what they hear and read in school and to communicate successfully with other people.

Vocabulary is central to English language teaching because without sufficient vocabulary students cannot understand others or express their own ideas. Wilkins (1972:111112) wrote that “... while without grammar very little can be conveyed, without vocabulary nothing can be conveyed”. The kinds of vocabulary can be classified to many kinds. It includes verb, noun, adjective, adverb, conjunction article, and preposition. Moreover, Thombury (How to teach vocabulary: 3) also classified them into one of the eight different word classes. They are that we call part of speech.

(1988: 14) emphasized that games are be able method to achieve many educational objectives such as reinforcement, review, reward, relax, inhibition reduction, attentiveness, retention, and motivation. This implies that any English teacher should know and master the skill of using language games in his/her class. This may be given at the English Teacher Training. In conclusion, games are able to help students use and practise the language, in a relaxed way. Games help the teacher to create contexts in which the language is useful and
meaningful. The learners want to take part and in order to do so must understand what others are saying or have written, and they must speak or write in order to express their own point of view or give information. However, even though games have many advantages, they cannot be used by any kind of students.

Language learning is hard work. One must make an effort to understand, to repeat accurately, to adapt and to use newly understood language in conversation in written competition. If the students are amused, angered, intrigued or surprised the content is clearly meaningful to them. Thus, the meaning of the language they listen to, read, speak and write will be more vividly experienced and, therefore, better remembered. If it is accepted that games can provide intense and meaningful practice of language, then they must be regarded as central to a teacher’s repertoire. They are thus not for use solely on wet days and at the end of term.

According to Andrew Wright, David Betteridge and Michael Buckby in their books "Games for language learning" Cambridge University Press, 1984:4-6). Being aware of the essential character of a type of game. In this research, the researcher focuses on Board game. Board game is the colourful boards show the paths that the players must follow and the English phrases that the players must produce orally if they land on a particular space on the board. The players" goal is to move ahead as fast as possible to the „Finish" space.

The framework proposed in the current study is actually the elaboration of aspect in the last area, gamedevelopment. The framework concerns the plan of the game development and synthesizes from several models proposed by experts. The framework for designing the game as the main purpose of the present.The underlying approach used in this research is contextual teaching learning that basic concept of game development. The game deliberate about the things must do related to acquire certain vocabulary in each content of the game that topicized. The second stage essentially concerns with the organization of game which developed.

After trough the steps before, researcher choose “Gumiho Snake and Ladder” as a product name. This is a manual sketch by the own researcher which will applicatespecially for students Pattani Thailand in Islamic University of Jember. Appearance of game is will be drawn in a 594 cm x 420 cm white paper or people usually name it A2 paper size, and about 0,5 mm in thick. The purpose of the paper dimension is to set a clear visual look in the class when it was used. So, the student can easily follow the game. The appearance first drawn with pencil with the snake and ladder theme. It is also complete with a background picture to attract the student. The picture maintains in its natural pencil colour which is light and dark grey and to strengthen the visual depth, the shading technique applied. Up and Down snake and ladder game has many components to help in run well, it belongs dice, common rule, tokens.

**METHODS**

This research is aimed to design a game in teach vocabulary toaccomplish the qualified teaching andlearning. Therefore, research anddevelopment isappropriated design toapply this study. As stated by Borg andGall (2003:570) and in Latief(2010:107-108) that Educational Research and Development (R&D) is a process used to develop and validate educational product.
In accordance to the purpose of this study, namely designing snake and ladder game as an instructional media to teach vocabulary for intermediate student level of YC, the researcher needs the model of development based on the developing model Borg and Gall (2003:570).

**a. Need Analysis**

Designing the game is needed to guide the teacher to teach English fun, it also aims to grab a lot of the material without monotonous learning. Muhrofi in Ika (2014:4) stated that need analysis has a big connection with the characteristic of teaching practice. In this study, researcher will conduct need analysis to gain the information of the learners’ need that is related with the game as an instructional media to teach vocabulary in Yoko’s English Course (YEC). Before step far forward, researcher prepare a set of methods used in collecting the data. This assessment as follow:

1. Documentation
2. Focus group discussion
3. Interview
4. Questionnaire

The first step need analysis will be done by doing Documentation. This method is taken to know the appropriate material competence by YEC students. Focus group discussion take the second seat of the method. Researcher want to dig the students’ need about the English skill and their interested game design which related to the vocabulary acquisition. In this phase the researcher only involved three groups of the students, each group consist of four students. There are seven items of the question in Focus Group Discussion to be discussed. The next phase is interview. This term will be conduct by giving questioning instructors of YEC about the facts condition and their interest in learning English, student’s difficulties. Student’s attention about game related is to teach vocabulary. The instructor will express their own opinion about the case.

Giving questionnaire is the last term on the need analysis that will be conducted. The researcher gives checklist to YEC students. There are fifteen YEC students in intermediate class (IC). The objectives of this phase to know the student want and their lack about the English learning. The questionnaire consists of nine items; each of these has several options. Addition, to avoid misunderstanding, the researcher will give clear explanation and write it in Indonesian. (See appendix 4).

The data are both qualitative and quantitative types. The qualitative data are in form of verbal data such as notes, comment, suggestion, and ideas. Meanwhile, quantitative data are in form of score assigned by the experts. The score range scale is from 0 (zero) to 4 (four), each scale of which reflects the subject’s professional and evaluative judgment on the variable interest, adapted from Ika (2014:42).
Table 1. The Data Collection of each participants

<table>
<thead>
<tr>
<th>Audience</th>
<th>Number</th>
<th>Data Collection</th>
</tr>
</thead>
<tbody>
<tr>
<td>The researcher</td>
<td>1</td>
<td>Questionnaire</td>
</tr>
<tr>
<td>Intermediate class (IC)</td>
<td>15</td>
<td>Focus group discussion</td>
</tr>
<tr>
<td>Instructors of Intensive course class</td>
<td>1</td>
<td>Guided Interview</td>
</tr>
<tr>
<td>Intermediate Students</td>
<td>15</td>
<td>Questionnaire</td>
</tr>
</tbody>
</table>

b. **Material selection**

The materials selection process for a component or joint between components involves these steps (Michael, 2006):

1) **Identify the design requirements**

The design requirements include the Performance requirements, Reliability requirements, size, shape, and mass requirements, cost requirements, designing and assembly requirements, industry standards, government regulations, Intellectual property requirements.

2) **Identify materials selection criteria**

The materials selection criteria are specific materials properties derived from the requirements identified during Step 1. For example, for a component that must support a specific load, the minimum yield stress that is required for the component’s material can be determined. This will be one of the material selection criteria.

3) **Identify candidate materials**

Use the materials selection criteria to rule out materials that will not satisfy all the materials selection criteria. When evaluating whether a material might be appropriate for the application, be sure to consider the materials’ range of values for the properties of interest. Do not rely upon nominal properties values.

4) **Evaluate candidate materials**

There may be candidate materials for which there insufficient data available to indicate whether the materials satisfy certain selection criteria. These materials will have to be analyzed and tested to determine whether they do meet the selection criteria.

5) **Select materials**

Select the materials that satisfy all the materials selection criteria at the lowest cost. Remember, cost includes the cost of the material and the cost to fabricate a component or form a joint between components.

c. **Designing Layout**

Games and learning have such a broad array of possibilities because games can take many forms. Video games are only a recent arrival to the scene; non-digital games like card games, board games, physical games, and others have existed for thousands of years. When designing for an educational setting, very often a non-digital experience is both a better
experience for the teacher and students and more realistically accomplished project for the game designer.

1) Appearance of the board

In this study, the appearance of the snake and ladder will be drawn in a 594 cm x 420 cm white paper or people usually name it A2 paper size, and about 0,5 mm in thick. The purpose of the paper dimension is to set a clear visual look in the class when it is used. So, the student can easily follow the game. The appearance first drawn with pencil with the snake and ladder theme. It is also complete with a background picture to attract the student. The picture maintains in its natural pencil color which is light and dark grey and to strengthen the visual depth, the shading technique applied.

2) Dice

Most of people known a dice is six-sided cube numbered from 1 to 6. Moreover, the term dice widely used to recognize a cube shape. According to Oxford Dictionary, dice is a small cube with each side having a different number of spots on it, ranging from one to six, thrown and used in gambling and other games involving chance. In this study, the researcher using the common shape and form, cube. With the dimension of each side is 10cm x 10cm, made from Styrofoam board taped together. The six's side fill with number 1 to 3, and repeat in other three side. The dimension of the dice is aimed to attract the students and the number is easy to follow by whole participants of the game. The number limited on 3 to give more time in playing within 60 minutes maximum. Finally, with this design of the dice the researcher can deliver the attractive game and reach the limited time set.

3) User manual

Another important part in a product, especially a game, is a game instruction or its universal called user manual. User manual should as clear as the users’ language, it is mean that the user can easily follow the instruction without a further help.

d. Expert Validation

Validity and reliability must be addressed in all studies. The accuracy, dependability, and credibility of the information depend on it. In quantitative research, reliability refers to the ability to replicate the results of a study.

e. Revision by Expert

The criteria validate in the validation phase emerging the lack and the plus point of the product. The expert will revise those lacks by giving critics and suggestions to improve the product for it best outcomes. The revision will drive the researcher to come with options of improvisation needed.

f. Product Try Out

Bayle in Ika (2014:45) stated two methods in field testing. It is survey and interview. Researcher using a small-scale survey, the first will design a snake and ladder complete with the instructions. This game will be tried out as the first product field test. During the try out session, researcher will observe the lack and the strength point of the prototype. It will help the researcher to understand the applicability, effectiveness and appropriateness with the students’ need. By the end of the try out, the student will be given...
a questionnaire concerning to the aspects evaluated of the game has been conducted. All the observation process of learning will be captured in the picture.

g. Subject of the try out
The subject of this try out consider of two participants. The first is the researcher herself and the last is includes 15 of Intermediate class in YEC.

FINDINGS

a. Result of analyzing competence
Based on the analysis result done on Intermediate class in YEC, the researcher found that one meeting in each material within 90 mins time allotment teaching, 60 mins as teaching presentation section and 30 mins of review the materials. As intermediate level, lecturers were more concentrate on their vocabulary development.

b. Result of Focus Group Discussion
Focus group discussion is a second instrument. These instruments are as data collection in English research. Qualitative data are taken through focus group that will provide convenience for the researcher to establish understanding in perceptions of the research subjects. In this instance, it provides intensive question discussions that possibly collect the data about the background of the research subject in more detail.

The discussion was held on Saturday 05 November 2016 until 12 December 2016 that involved participants of ten students within groups. From the discussion, it is indicated that they dislike English language, they argued that English has the different pronunciation with their writing. First and foremost, why they faced difficulties in learning English is all about low motivation. Many students stated their Educational background was become the major. Nevertheless, teaching and learning must be enrolled with the exciting media.

c. Result of Interview
The need analysis data were gained from students’ group discussion. Then it validated by interviewing instructors to get the valid data. Interview was held on Tuesday, 8 November, 2016 that involved by the all IC and instructor in YEC. Based on the results of the interviews, the students are still low motivation in learning English. But some of students face the difficulties in learning English, especially in vocabulary mastery. It occurred because they are rarely practiced to memorize some of the vocab in their school.

Accordingly, they encountered difficulties in constructing spoken and written form or expression. Designing a game as snake and ladder game can hopefully fulfill their need. This game is modified with a different style. The first is expected to help them as a motivation buster and their accuracy in English. Secondly, this game is designed creatively, which appropriated to their age. Third, It is appropriate to the students level. The most important thing is linked with those receptive and productive vocabulary.

d. Result of Questionnaire
The questionnaires were given to the student after doing the tryout phase of the game. It involved the all participant of IC in YEC. As the participant, there are nine numbers for answers choices for each. For each choice represent the need of the student and reflect the present situation of the learners related to English. Questionnaire is prepared with some questions to obtain the information the researcher needs. Questionnaire has arranged for testing the data after tryout Phase itself. The first point in the discussion is about the first experience in learning English. A lot of students stated that English is more difficult to understand its context. This condition indicated that most of the students have a low motivation in studying English.

e. The result of game development

The game was developed by considering the result of need analysis gathered from triangulation data. The result of need analysis, refers to IC ability in YEC. The approach is taken from materials in accordance with the standards of student capability

Designing of game takes 2 weeks. The forms of game is drawn manually by sketch with pencil 2b and 8b. The researcher chooses the sketch drawn for make a game more flexibility and visibility. Gumiho snake and ladder first drawn in 594cm x 420cm white paper and people known as A2 paper size, and about 0.5 mm in thick. The purpose of the paper dimension is to set a clear visual look in the class when it is used. So, the student can easily follow the game. The first appearance of drawn with pencil is a snake and ladder theme. It is also complete with a background picture to attract the student’s attention. The picture as maintained naturally color pencil is light and dark gray to strengthen the visual depth. The shading technique also applied. The results have been visualized through 80x60 centimeter banner in more big appearance. In addition, dice and tokens are also designed as a tool to play the game. In addition, the researcher also wrote “user manual” containing a clear instruction to play the game.

f. Result of expert validation

The next stage was the first expert validation is Mr. Islamili M.Pd. He will discuss an appearance and accuracy display in overall game. He suggested that game must be a media to bridge the gap between students and activities. He gives positive feedback to more constructing of the game drawn.

g. Final product

This final product was developed through modification and revision based Yeca class needed, and the English teacher’s feedbacks. The final product of this study was named Gumiho Snake and Ladder. It consisted of some interesting tools, (1) Sketch of the game, (2) Dice, (3) tokens, (4) a set of vocabulary cards, (5) answer key, (6) play guide.

The final version of this game is each player stand in the different lane, and must be competitive on the level provided. It’s easy, medium, and hard. The vocabulary cards in Gumiho Snake and Ladder consisted of the question in daily routine. The question level was created by a lot of form. It belongs trivia, making simple sentence, jumbled, guessing word through picture, and guessing word through some clues. Furthermore, the question vocabulary refers to a lot of theme on daily life. Include greeting, days and date, beverage, public places, direction, number and currency.
DISCUSSION

As mentioned before, the purpose of this research was to design as an instructional media for vocabulary teaching for IC in YEC. This game helps the students to learn experiences and play at one time. The final product of this study was a package of a board game named Gumiho Snake and Ladder which contained some equipment, a sketch drawn of the game, a dice, three tokens, a set of vocabulary cards, play guide, and an answer key. Gumiho Snake and Ladder promoted an enjoyable learning because the rules were designed to facilitate more movement. The players could step and move around the board, they also could throw the giant dice. They will motivate and interest in learning English increased because Gumiho Snake and Ladder allowed the student to have a lot of challenge.

During the try-out phase in intensive course class, the students were playing game enthusiastically. All students give their opinion that it can motivate them to enjoy the teaching and learning process. This extremely prove that this game could maximize the involvement. In their teaching and learning process Gumiho Snake and Ladder give opportunity students to experience group work. By working in group, the students could learn about cooperative work to achieve the final goal. In Gumiho Snake and Ladder each group must work together to answer the problem printed in the vocabulary card. Group work encouraged the students to negotiate and have discussion with their group to make a strategy or an agreement.

Beside it is, through the result of the tried-out phase, it was found that the students loved Gumiho Snake and Ladder because it has unique displays, the larger sketch drawn, the tokens, and the dice. Equally important, the students also loved this game because they had already familiar with Snake and Ladder Game’s rules and regulations. Therefore, the majority of the students did not have any difficulties in following the rules of Gumiho Snake and Ladder since some of the rules are the same as the original Snake and Ladder. Gumiho Snake and Ladder gave a very simple understanding about fortunate and unfortunate events in our life. As mentioned previously, Snake and Ladder game tried to introduce ups and downs in our life through the present of snakes and ladders. The snakes teach the unfortunate events in life. On the other hand, the ladders represented the fortunate events. The students had to know that they would experience both happiness and sadness in their life so they must be able to face both conditions. The vocabulary card represented as a ticket forward to the next fortune life. It means, we did not suggest to give up to reach the final happiness.

The final result shows that Gumiho Snake and Ladder could be used as the media to teach vocabulary, since the majority of the students appreciate the media well. Thus, the board game could help the students to learn vocabulary in an enjoyable way as the students love to study through game. On the other hand, Gumiho Snake and Ladder also had some weaknesses. This rule of game hard to memorize. Then, Gumiho Snake and Ladder was completely hard to be applied in a big class, since it required a very good classroom management. The teacher must be able to control the condition of the class when the students played this game. Thus, this game also very challenging for the teacher.

CONCLUSIONS
From the need analysis, questionnaire, focus group discussion and interview, it can be concluded that Gumiho Snake and Ladder as teaching media in vocabulary and the future researchers who want to conduct a study to develop this game. The suggestions for the English teacher are as follows:
1. Gumiho Snake and Ladder is suitable for IC in YEC to help them mastering vocabulary.
2. Gumiho Snake and Ladder effective for a class with the low motivation, lack of vocabulary and limit media.
3. Gumiho Snake and Ladder as a game proven help teacher in transferring knowledge to their students.

REFERENCES

Ary, Donald et al. 2010. *Introduction to Research in Education*. Canada. Wadsworth

A.J Romyszowski. (1988). *The selection and use of instruction media: a system approach*


Bureau of Educational and Cultural Affairs. 2013. *Active games for learning American Language*. Published by Office and Language Programs.


Dodd and Davis. 2002. *Qualitative research and the question.*


