

Developing modified snake and ladder media to teach grammar

Lailatul Fitriyana^{1*}, Istina Atul Makrifah^{2*}, Widiarini^{3*}, Siti Rofi'ah^{4*}

^{1,2,3,4}Pendidikan Bahasa Inggris, FIP, Universitas Nahdlatul Ulama Blitar, Indonesia

*widiarini@unublitar.ac.id



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ABSTRAK

Abstrak: Tujuan belajar bahasa Inggris bagi siswa adalah untuk menguasai kemampuan bahasa Inggris. Namun, siswa harus memahami tata bahasa karena dapat membantu mereka untuk membuat dan berbicara dalam kalimat yang baik. Selanjutnya, penelitian ini bertujuan untuk mengembangkan media ular tangga untuk membantu siswa kelas 10 teknik komputer dan jaringan di SMK Kanigoro. Hasil observasi, wawancara, dan survei, mereka mengalami kesulitan menguasai berbicara, membaca, dan memahami makna teks karena mereka tidak memiliki tenses dan kosa kata. Kemudian, guru tidak aktif mengajar dan tidak pernah menggunakan media pembelajaran. Peneliti membuat media inovasi dengan metode R&D dengan menggunakan model ADDIE (Analysis, Design, Development, Implementation, and Evaluation). Teknik yang digunakan adalah observasi, wawancara, dan survei. Solusi yang ditawarkan adalah ular tangga yang dikombinasikan dengan kartu. Hasil validasi instrumen sebesar 88% dengan kriteria "sangat valid". Kemudian, validasi bahasa adalah 90% dengan kriteria "sangat valid". Validasi materi adalah 80% dengan kriteria "valid". Hasil respon siswa 87,85%, kriterianya sangat valid. Reliabilitasnya adalah 0,873 dengan kriteria "reliabel". Dengan demikian, media ini valid, reliabel, dan cocok untuk pengajaran tata bahasa.

Abstract: The aim of learning English for students is to master English skills. However, students should understand grammar because it can help them to create and speak in good sentences. Furthermore, this study aimed to develop the snake and ladder media to help the 10th-grade students of computer and network engineering at Kanigoro Vocational High School. The result of observation, interview, and survey, they had difficulty mastering speaking, reading, and comprehending the meaning of text because they lacked tenses and vocabulary. Then, the teacher was not active in teaching and never used learning media. The researcher made an innovation media with the R&D method by using the ADDIE (Analysis, Design, Development, Implementation, and Evaluation) model. The techniques are observation, interview, and survey. The solution offered is the snake and ladder combined with the card. The result of instrument validation is 88% with "very valid" criteria. Then, language validation is 90% with "very valid" criteria. Media validation is 80% with "valid" criteria. Matter validation is 80% with "valid" criteria. The result of students' responses is 87,85% the criteria is very valid. The reliability is 0,873 with "reliable" criteria. Thus, this media is valid, reliable, and suitable for teaching grammar.

INTRODUCTION

In principle, the purpose of learning English for students is to master the skills, which include in writing, reading, listening, and speaking. However, students should understand grammar also. When someone lacks the ability to produce and understand complicated language, they frequently misinterpret the genuine intent of many talks, queries, text sections, and logic puzzles. (Svirko et al., 2019) The trigger factor was students were taught that learning English, especially about tenses is difficult. The research in Bali recorded the results that students who participated in the training still had difficulties in learning English and thought the language was difficult (Muliana, 2021). Their perspective can be embedded in their brain that English (Tenses) was difficult to learn. Thus, this perspective can lead to their mindset that English especially about tenses was difficult to learn.

The subject of this research was Computer and Network Engineering (X-TKJ) at Kanigoro Islamic Vocational School (SMKs Islam Kanigoro). Based on observation and unstructured interviews with English teachers, the problems come from internal and external. Internal problems were the students had difficulty reading the text and comprehending the meaning of the text because their knowledge about tenses and vocabulary was lacking. Then, students needed to learn grammar (Tenses) in order to comprehend the text. It means that students were expected to get tenses while studying the text. For example, while students taught about recount text, they taught about simple past, past continuous in advance so they knew about situation happened, understood about the grammar used, and they can create the simple text about it. Based on e-questionnaire data, which were distributed for 15 students (7 male, 8 female) in X-TKJ. The total students are 17 but 2 students did not come in the class. So only 15 students fill the questionnaire. The results are 12 out of 15 students were unable to understand the tenses. There are 2 students have not mastered tenses. Then, one student easily forgets about tenses matter. The evidenced from unstructured interviews with English teacher, he said the next problem for students is about low learning motivation to learn. Therefore, they need a different and interest media to learn English. Then, according to questionnaire data, the external problems are teacher has less active in teaching. It was strengthened by the results of interview with English teacher. The reason, he had triple jobs as teacher of English, art subject and as head of skill program in SMK Islam Kanigoro. Eventually, he did not have a lot of time, effort and money to innovate the learning method and media. Afterwards, Teacher rarely used learning media so students feel bored. Then, from interview conducted with students, it was obtained the result that they needed significant challenges in the learning process, students feel bored and less active in class so they focus played their phone. Thus, it can be concluded that the method of delivery can affect students' interest in learning.

From these problems, a solution is needed to bridge students to learn grammar (tenses) so they can read and understand text in a fun way. The solution offered by the researcher is innovation media combine with tenses card. The creation of the creative snake and ladder game using question cards with tenses. The benefits of this medium include an efficient, simple, and enjoyable approach for students to acquire and hone their talents. (Arfani & Sulistia, 2019). Then, Students may increase their enthusiasm and improve their skills without internal tensions by playing snake and ladder, which fosters a friendly environment between teachers and students. (Badroeni, 2018).

The students' learning process was supported by various adequate facilities to equip them in the world of work (Puspitasari, 2018). In one game (Snake and ladder) can solve problems about tenses, difficulty reading, knowing the meaning and it can help students to create simple sentence. Therefore, it can be assumed that the higher student's grammar mastery is the higher reading comprehension. Thus, knowing about tenses (Simple past and past continuous) in fractured tales matter can help students to comprehend what the text means correctly. From the problems and previous research, researcher is offers different innovations to teach grammar (Tenses) that is snake and ladder. The innovation incorporates questions about tenses (simple past and past continuous) in cards and other punishments. It helped students in reading and understanding the meaning of the fractured text matter. Thus, this media can be challenging, fun and make it easier for them to learn tenses.

There is similar research about this media. First research from Soleman Dapa Taka. He researched about teaching speaking by snakes and ladders in 10th grade at SMA Kristen Mercusuar Kupang. The result of this research shown that almost all of the students gave positive responses, such as they gave attention seriously, more active than before, happy, and they could improve their speaking (Taka, 2019). Second research from Erna Pujiasih. She researched about teaching grammar

by snakes and ladders in SMAN I Bantul. The results shown the students are happy, Interest, and they can improve their English speaking (Erna Pujiasih, 2019). The third research from Rini Widiastuti and Nafisah Endahati. They use snakes and ladders to teach writing skill for 7th grade at SMPN 14 Yogyakarta. The result shows the process of teaching-learning in each cycle lead the students more enthusiastic and enjoyed learning the English language (Widiastuti & Endahati, 2020). This evidenced by student answers and students writing about narrative text when observations were made in X-TKJ. From this description, the formulation of the problem about how is the process and result of developing snake and ladder modification media to teach grammar for students of computer and network engineering.

METHOD

The method that used in this research is Research and development (R&D). R&D is research method that used to produce certain product, and test effectiveness of the product (Sugiyono, 2014). The model of research is model ADDIE by Dick and Carry (1996) for designing learning systems. "The ADDIE development model consists of five stages, namely Analysis, Design, Development, Implementation, and Evaluation, however, this study was limited to the implementation stage" (Aditya, 2020). "This means it is flexible enough to allow anyone, at any time to revisit a step, and define it Steps are explain in the following chart" (Davis, 2013). There are two main points that affect the quality of research data. There is the quality of Data Collection Techniques. Data Collection Techniques is about the way that used to collect the data. Data Collection Techniques are: 1) Observation, data obtained through observation are more real and true than the data collected by any other method. It also plays a particular part in survey procedure (Pandey, 2015). 2) Unstructured Interview, unstructured interviews in which each interviewer was free to approach each candidate differently and however they deemed suitable (Dana et al., 2013). 3) Questionnaire, questionnaire is a survey instrument used to collect data from individuals about themselves, or about a social unit such as a household or a school" (Siniscalco, 2005). 4) Documentation, it is techniques be more credible if supported by photos or other videos (Sugiyono, 2014). "A controlled practice phase follows where the learner says the structure correctly, using such activities as drills and transformations, gap-fill or close activities, and multi-choice questions" (Widiarini, 2022).

The data analysis techniques used in this research are qualitative and quantitative descriptive data analysis. Researcher gets the data from observation in the class, unstructured interview with English teacher, and suggestion from validators (Media, language, and matter expert). A Conception of qualitative analysis by Miles and Huberman in (Miles and Huberman in Saragi, 2014) is reduction, data condensation, data display, conclusion drawing. Quantitative descriptive analysis. The data from quantitative descriptive analysis is obtained from questionnaire from Matter expert, media expert, language expert, and instruments validation from expert judgment.

A test that determines whether a measuring instrument was valid or invalid is the theory of validity test. (Sugiyono, 2014). Researcher uses a Likert scale. Likert scale is the scale to measure about attitudes, opinions, and perceptions from someone about social phenomena (Sugiyono, 2014). In this research, the students' total were 17 students (10 females, 7 males). Then, to count the validity and reliability, researcher used the theory from Isaac and Michel. This research has 3 validators and 1 instrument validator. Two lecturers from UNU Blitar as validators of Media and language. One lecture as instruments validator of media, language, matter, and students' responds. The fourth is English teacher in the SMKS Islamic Kanigoro as validator of matter. To calculate the score, the researcher uses with this formula:

$$P = \frac{\sum x}{\sum xi} \times 100$$

P : Percentage
 $\sum x$: The total score of Validator's answer
 $\sum xi$: Max score

Based on the calculations that have been done, then the interpretation of the numerical score becomes a category based on Arikunto in (Ernawati, 2017).

Table 1. The category validation category

Interval mean score (%)	Category
40-54	Invalid
55-69	Less valid
70-84	Valid
85-100	Very valid

After researcher knew the percentage, researcher calculated the entire total in every validation with this formula:

$$\Sigma = \frac{X \times 100\%}{N}$$

Σ :Overall score result
X : Total score
N: Quantity of questions

Description of Likert Scale for matter expert, media expert, and language expert in English language based on Sugiyono 2014 is:

Table 2. Description of Linkert Scale

	Specification	Abbreviation
5	Strongly Agree	SA
4	Agree	A
3	Moderately Agree	MA
2	Disagree	D
1	Strongly Disagree	SD

The percentage that has been obtained is then adjusted to the following from (Arikunto, 2010). Then to calculate the reliabilities of the instrument in the form of multiple-choice questions on SPSS 26.0 by using Cronbach's Alpha testing. According to Arikunto, "Reliability shows in a sense that an instrument can be trusted for used as a data collection tool because the instrument is already good". Cronbach alpha research criteria is According to Triton in Sujianto (2009:97)

Table 3. Instrument Reliability Testing Criteria

Cronbach Alpha	Interpretation
0.81 – 1.00	Very Reliable
0.61 – 0.80	Reliable
0.41 – 0.60	Quite Reliable
0.21 - 0.40	Rather Reliable
0.00 – 0.20	Less Reliable

Then, the students respond in the form of a questionnaire count using this formula:

$$\text{Response Score (\%)} = \frac{\text{The total score of all respondents} \times 100\%}{\text{Maximal Score}}$$

Based on the calculations that have been done, then the interpretation of the numerical score becomes a category based on Percentage of students' responses by Arikunto in (Ernawati, 2017).

Table 4. Percentage of Eligibility Category

Interval mean score (%)	Category
81-100	Very Decent
61-80	Decent
41-60	Decent Enough
21-40	Less Decent
<21	Very Not Decent

After the researcher analysis it, the researcher knew the result and revised it based on criticism and suggestions from the validator and students as user of media.

RESULT AND DISCUSSION

This research has the problems come from internal and external. Internal problems are the students get difficulty to read the text and comprehend the meaning of text. Then, students need to learn grammar (Tenses) in order to comprehend the text and students feel bored and it did not have innovation media. Based on interviews with English teacher, the external problems are implementing of Merdeka curriculum is still 40%, 60% Teacher used K13 curriculum. It happens because of the lack of socialization of the Merdeka Curriculum so Teacher is still confused in its application. Next, teacher

has less active in teaching. It was strengthened by the results of interview with English teacher. The reason, he has triple jobs as teacher of English, art subject, and as head of skill program in SMK Islam Kanigoro. Eventually, he did not have a lot of time, effort and money to innovate the learning method and media. From these problems, researcher made a product to help the teacher to deliver the matter especially about tenses in fractured tales.

The output of the research is snake and ladder modification media. The game is based on the movement of the characters of these players based on numbered from dice. The snakes take a downwards while the ladders lift up" (Ibam et al., 2018). The content of the cards is about grammar (Tenses) especially about simple past and past continuous (+) (-) (?) in fractured tales matter. The quantity of the cards are 40 cards. The size of it is 40cm x 40cm with the dice and pawns. Then the size of cards is 9cm x 7cm. the flow of the game is the same as in general, it was just that in some numbers, students have to take cards.

Then, the first process to make and use the snake and ladder media based on ADDIE process is Analysis. Researcher analyzed the problems and the students with observation in the class, unstructured interview with English teacher and distribute questionnaire for students as a subject. Second is design. Researcher found the formula of learning objectives. Then researcher design the snake and ladder media with the cards. Third is development. Researcher revised the media based on the suggestion. After that, researcher was printing the snake and ladder, guidebook and 40 cards. Then researcher served the dices and pawns. The fourth step is implementation. Researcher implemented the media in X-TKJ. The procedures to teach grammar based on SLT (Situational language teaching), the technique to teach grammar is PPP (Presentation, Practice, and Production) cycle. The last step of ADDIE is evaluation. In this research, researcher used formative evaluation. Formative evaluation is most valuable when conducted during development and tryouts (Marrison, Ross, Marisson, 2019). Researcher evaluated product while processes happened. So that the product is immediately revised according to the evaluation. The result's score of instrument validation is 88% with "Very Valid", language validation is 90% with "Very Valid" criteria, media validation is 90% with "Very Valid", and the last is matter validation with 80% with "Valid" criteria. Then, the students' respond is (87,2%) the criteria is very valid. The reliability of students' respond is (0,873) the criteria is reliable. Thus, the conclusion of the media is valid, reliable, and suitable for using.

From these results, researcher analyzed with previous study from Soleman Dapa Taka with the tittle "teaching speaking by using snake and ladder board game" (Taka, 2019). Not only that, researcher also uses the previous study from Erna Pujiasih with the tittle "Teaching Grammar with the Snake and Ladder Game to Improve Speech and Writing Competence" (Erna Pujiasih, 2019). In research that has been carried out by researchers, there are changes on the motivation of students whose data was obtained from the results of the questionnaire. Average increase in student motivation in cycle 1 is 13%, while the average increase in student motivation in cycle II is 15% (Mahfud & Fahrizqi, 2020).

In this previous study, the research from Erna Pujiasih is focused on grammar but the differences with this research are about the matter and the kinds of tenses used. Then, research from Soleman Dapa Taka is focused on speaking. So, this media is not only used to teach English skills but also to teach about the language component (grammar). Thus, this innovation can support and complement previous research innovations.

CONCLUSION

This research, the subject is X-TKJ in Kanigoro Islamic Vocational School (SMKS Islam Kanigoro). Then, the method is Research and Development (R & D) by using ADDIE model. The first step is Analysis, Researcher analyzed the problems and the students with observation in the class, unstructured interview with english teacher and distribute questionnaire for students as a subject. Second is design, researcher design the snake and ladder media with the cards. Researcher revised the media based on the suggestion. After that, researcher was printing the snake and ladder, guidebook and 40 cards. The procedures to teaching grammar based on SLT (Situational language teaching), the technique to teach grammar is PPP (Presentation, Practice, and Production) cycle. Evaluation is used for the purposes of making judgments about the worth or success of people or things.

Then, based on observation and interview, the problems come from internal and external. Internal problems are the students got difficulty to read and comprehend the meaning of text. The external problems are teacher was less active in teaching because he has triple jobs there and he never use the media to transfer the matter. From these problems, the solution offered are the snake and

ladder combine with card. The result of instrument validation is 88% with “very valid” criteria. Then, language validation is 90% with “very valid” criteria. Media validation is 90% with “very valid” criteria. Matter validation is 80% with “valid” criteria. The result of students’ respond is 87,85% the criteria is very valid. The reliability is 0,873 with “reliable” criteria. Thus, this media is valid, reliable and suitable for teaching grammar.

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