

Developing Visual Novel Game of English Conversation for DEP EEPIS

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Abstract

English subjects become a big part of education curriculum in Indonesia taught from the elementary level, intermediate, and high included the Distance Learning (DEP). To meet the needs of the importance of English will require learning media can be: 1. Creating Independence learning, 2. Increase the motivation to learn, 3. Improving the ability and learning achievement. In the Distance Education Program such as in Electronic Engineering Polytechnic Institute of Surabaya (EEPIS), the distance apart between lecturers and students need to learn innovative media, interactive, and motivate students DEP EEPIS can learn independently.

Game as one of the media elearning is much in demand both from the children to adults that can be a good vehicle for inserted and then deliver English language teaching materials to make it more interesting and motivating. In addition, the game can provide perscriptive effects for users to further learn what is contained in the game.

In various studies, the game has proven to be used for teaching language and the content inserted a curriculum for teaching purposes in the formal sector such as in college. Therefore, this study will develop game that adopts English curriculum content of DEP EEPIS.

Game in this study is designed to deliver teaching materials Expression. Game in this study is a Visual Novel games and will be developed using the methods of the Development Research conducted in the first phase, and will test its effectiveness in the second stage using Experimental research on subsequent research. Visual Novel game outcome is expected to be used by students of DEP EEPIS order to learn independently.

Keywords: English, Distance Learning, Interactive Multimedia

1. Introduction

English course is one of the subjects given in Distance Education Program in Electronic Engineering Polytechnic Institute of Surabaya (DEP EEPIS). One chapter of the syllabus taught in English for informatics engineering DEP EEPIS is a conversation using the expression of certain expressions. The goal is to allow students to use the English expression given the right situation. Expression includes greeting, introducing self, introducing others, and others. Model expression models can be used for conversations daily.

To make the students of DEP EEPIS able to master the expressions well, it is needed a teaching and learning media that can support the distance learning processs because the material delivery of Expression for conervation is not maximum if only distributed using written materials such as notes or ebooks. To master the english expression well, students of DEP EEPIS needs not only reading the materials, but also apply them so that they are easy to master.

However, it causes another problem where students of DEP EEPIS who live far away one to another and have little time to meet their friends to practice English conversation. Besides, the lecture in DEP EEPIS is only conducted once a month for direct meeting with the lecturer. The rest meetings are conducted online.

One way to face the problem is by providing a teaching and learning media which is interactive and can simulate the real condition of doing conversation using English to train student to use the certain expressions based on the right use. Besides having interactivity feature, the teaching media must also be interesting to the students of DEP EEPIS.

Games can be used as a medium of learning that fits for the purpose of delivery of teaching materials. In addition to having interactive features that can make the active partition student in the learning process, the game can also be motivating users. Several factors in a game that can attract the attention of users is the gameplay and graphics. Flow of the game play can make game players are curious and want to continue with the game, while from the side view, graphic or image, and the background is fascinating to make the game players feel at home playing the game.

One type of games that can be combined with a conversation in English teaching materials is a kind of visual novel game. Type of visual novel game is dominated by the storyline and conversation and drawings of characters in a novel that is told visually. However, the interaction that occurs between the game and the players

are still limited to reading and selecting the option to respond to the questioner an answer that is a character in the game. Features visual novel game for English conversation should be given the audio elements that reading the words of the characters and the option to choose the answer given by the game player, in this case is a student of DEP EEPIS. It is intended that the game player is indirectly also to learn the correct pronunciation for each phrase that is used so that the approach is in audio and visual.

Thus, this study visual novel game will be made so that it contains material that is expression of English conversation. Conversation material is put into a visual novel games that are English language materials on DEP EEPIS. With a visual novel game made this English conversation, students are expected to be able to receive teaching materials with good and improving learning achievement.

2. Method

A. Research Method

Visual Novel Game in this research study design uses Research Development (R & D: Research and Development). According to Sugiyono (2010: 407), methods of research and development is the research methods used to produce a particular product and test the effectiveness of the product. In this research, there are also Experimental Research. The study is planned for two years of research. Stage / first year will be conducted for Visual Novel Game development and small-scale trials to enhance technical errors in the game that has been made. Stage / the second year will be focused on Experimental research to determine the effectiveness of the Visual Novel Game.

B. Research Procedure

The research is the *Research and Development* or methods of research and development, this method is used to produce a particular product and test the effectiveness of the product.

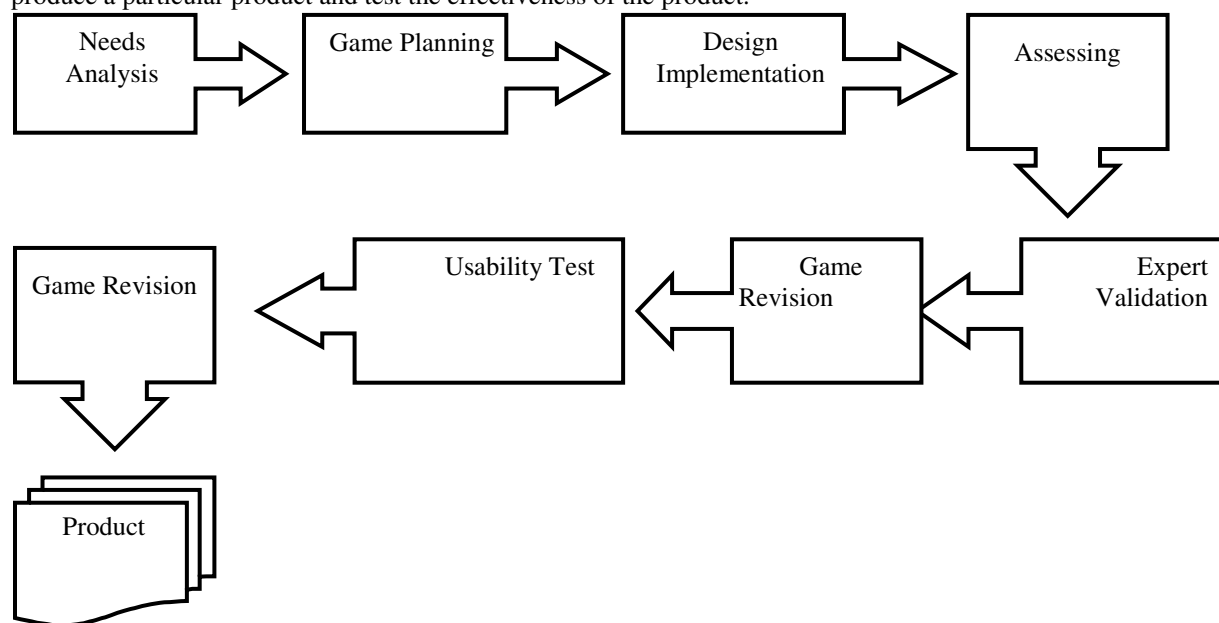


Figure 1. Steps of Research and Development Method

Based on the explanation above, the procedure of the research that will be conducted including:

a. Analysis

At this stage, the analysis is to find out the needs of requirement of which the collection of information about the material Expression on English subjects in DEP EEPIS level will be delivered through the Visual Novel games.

This analysis stage will be used to:

1) Analysis of Problems

Problem analysis is used to investigate the problems that arise in learning activities in the field and identify possible solutions that can be used to resolve the issue.

2) Analysis of Media Content

Media content analysis is an analysis of the learning component that includes standards of competence, basic competence, learning objectives and content of media materials to be presented so that the preparation of the media has a definite purpose and content of the material prepared in accordance with the syllabus.

b. Design Plan

The phase of the design is the design phase of the system to get effective media and interactive learning of the material that has been predetermined. At this stage it is necessary that storyboard game Visual Novel Expression matters where the learning path Expression material is incorporated into the gameplay game Visual novel. Visual Novel gameplay in the game is designed so that it reflects the use of the material Expression. Broadly speaking, this stage will be made:

- Gameplay
- Character Design
- Storyboard game

c. Implementasi Desain

The implementation phase of the design is the process of translating the design into an actual display. In making games Visual Novel Expression material will include:

- The making of Game Characters
- The making of the games using RenPy game engine

d. Assessing

This stage is the stage where learning media is examined. This stage is more to the examination of whether there is an error navigation buttons giving commands, the navigation can not be accessed, checking interface, error on the material, as well as typographical errors. This stage is checked one by one manually makers and will be examined again by the specialist media and materials experts at the validation stage of learning media in the form of the novel visual game.

e. Expert Validation

This stage is the stage where learning media in the form of a visual novel game in a test or examination navigation button if there is an error giving orders, navigational errors, errors in the material. The next step is the validation by experts or expert judgment. Media validation performed by Mr. Dwi Susanto, MT as a media expert lecturers and Game of Prodi Multimedia Electronic Engineering Polytechnic Institute of Surabaya, as well as media expert lecturers and Game of Prodi Multimedia Broadcasting Electronic Engineering Polytechnic Institute of Surabaya, Hasbi Assiddiqi, ST. MT. While validation of the material is carried out by Mrs. Eny Kusumawati, M.,Pd as a lecturer in English.

In the validation phase of the research preliminary testing is done to determine whether the visual novel game made fits for use as an interactive learning media or not. If the game that has been validated and does not meet the category needs to be revised, the interactive learning media are ready to be implemented in the field. While matteral experts are assigned to evaluate the completeness and suitability of visual novel game with Expression material suitable with syllabus, and media experts to assess the design of media. Respondents in this study are students of DEP EEPIS.

f. Revision

Once validated by experts, then visual novel game Expression material is revised based on the input of experts. If the game, that has been validated, did not meet the category needs to be revised, the game Expression of learning materials is ready to be implemented in the field.

g. Usability Testing

After Game Visual Novel Expression English language materials is declared eligible by the experts, the game tested in the field (DEP EEPIS). Students try out games that have been made and provide feedback.

h. Game Revision

Once the game is tested in the DEP EEPIS with students as respondents; then, it is repaired on input from the student, and if it is not possible to do the repairs, it will be the input for further research.

i. Product

The resulting product is an educational game Expression in English learning which deserves as a medium of learning in the learning process in DEP EEPIS.

C. Data Collection Technique

Data collection techniques are used to obtain data on students' responses to the use of games Visual Novel Expression material using a questionnaire. Questionnaires are also often known as the questionnaire. The questionnaire is the technique of data collection that is done by giving a set of questions or a written statement to the respondent to answer. (Sugiyono, 2009: 199) According to Suharsimi (2009: 28-31) classifies the questionnaire as follows:

a) In terms of who answers the questionnaire is divided into two: direct and indirect. The questionnaire is said to be direct if the questionnaire is delivered and filled directly by the person who will be asked for answers about her. The questionnaire is not direct when the questionnaire is sent and filled by not one to be reached for comment.

b) In terms of how to answer, the questionnaire is divided into six, those are closed, open questionnaires, check lists, interviews, observation and biography.

Based on the various questionnaires above, this study is using a questionnaire with answers of direct check list.

1) Instrument for Media Expert

In the instruments, the containing media experts point about aspects related to the coverage of learning media. Here is the learning instrument for media experts.

Table 1. Indicators for Media Expert

Aspects	Indicators	Items	Sums
Navigation	a. Navigation use	1	2
	b. Navigation accuracy	2	
Ease	a. Operating ease	3	6
	b. Pictures and material relativity	4	
	c. Easy to use language	5	
	d. Easyness to choose response	6	
	e. Easy navigation	7	
	f. Easy to give feedback	8	
Text	a. Text quality	9	6
	b. Readability	10	
	c. Font correction	11	
	d. Appropriate color	12	
	e. Appropriate font	13	
	f. Learning mateial quality	14	
Interface	a. Appearance appropriateness	15	6
	b. Layout	16	
	c. Content position	17	
	d. Appropriate theme	18	
	e. Design quality	19	
	f. Background and text color balance	20	

2) Instrument for material expert

In the instruments containing material experts point about aspects related to learning material contained in the visual novel game English Expression materials include aspects of learning, materials and contents truth. Here are the grating of instrument learning media experts.

Tabel 2. Instrument for material expert

Aspect	Indicator	Items	Sum
Teaching	• Material	1	8
	• Basic competence	2	
	• Learning Guide	3	
	• Samples of content	4	
	• Exercises	5	
	• Motivation	6	
	• Self practice	7	
	• Individual progress	8	
Material	• Material appropriateness	9	11
	• Factual material	10	
	• Interesting material	11	
	• Material structure	12	
	• Material coverage	13	
	• Easiness	14	
	• evaluation	15	
	• feedback	16	
	• language	17	
	• language comprehensibility	18	

3) Instrument for students

These instruments are for users in terms of aspects of learning, materials, design and programming display. Here are grating instrument for students.

Tabel 3. Student indicators

Aspect	Indicator	Items	Sum
Motivation	a. attention	1,2,3,4	10
	b. motivation	5,6,7,8,9,10	
Interest	a. interface	11,12,13	4
	b. attactivity	14	
Ease	a. easy to comprehend material	15,16	4
	b. easy to use	17,18	
benefit	a. effects to students	19,20,21	7
	b. new skills add	22,23,24,25	

D. Data analysis technique

The type of study is qualitative and quantitative data, the data is analyzed by descriptive statistics. Qualitative data are in the form of comments and suggestions for improvement of the product matter experts; and, the media experts are then analyzed and described in a qualitative descriptive to revise the product developed. Then the quantitative data are obtained from the assessment scores of matter experts, media specialists and scores from the results of questionnaires. Quantitative data are derived from questionnaires matter experts and media experts as well as a questionnaire of students; then, they are calculated the average score with the formula adapted from Arikunto (2006: 264). In the quantitative research, the data are calculated average then converted into a qualitative value scale 5 with Likert scale in a conversion table reference value adopted by the Sukardjo (2005), as follows:

Table 9. Conversion Data

Score interval		Category
$x > X_i + 1,80 S_{bi}$	$X > 4,2$	Very good
$X_i + 0,60 S_{bi} < x \leq X_i + 1,80 S_{bi}$	$2,6 < X \leq 3,4$	good
$X_i - 0,60 S_{bi} < x \leq X_i + 0,60 S_{bi}$	$2,6 < X \leq 3,4$	enough
$X_i - 1,80 S_{bi} < x \leq X_i - 0,60 S_{bi}$	$1,8 < X \leq 2,6$	Not enough
$x \geq X_i - 1,80 S_{bi}$	$\leq 1,8$	inadequate

Notes:

- Average (X_i) : $-x$ (minimum score + maximum score)
- Standard Deviation (S_{bi}) : $-x$ (maximum score – minimum score)
- X : average scoe after implementation
- Maximum score : 5
- Minimum Score : 1
- X_i : $-x (5+1) = 3$
- S_{bi} : $-x (5-1) = 0,67$

3. Result

Results of this research is the development of Visual Novel Game, especially English conversation for class 1 semester distance education programs Electronic Engineering Polytechnic Institute of Surabaya. The game is composed as:

A. Start Page

Visual novel game English conversation begins with the Start page containing the game logo and the start button to enter further into the visual novel game conversation this English language.



Figure 4.1 Start Page

B. Welcome Page

The Welcome Page explains briefly about what this game is so that players can find out the outline of what will be done in a visual novel game this English conversation.

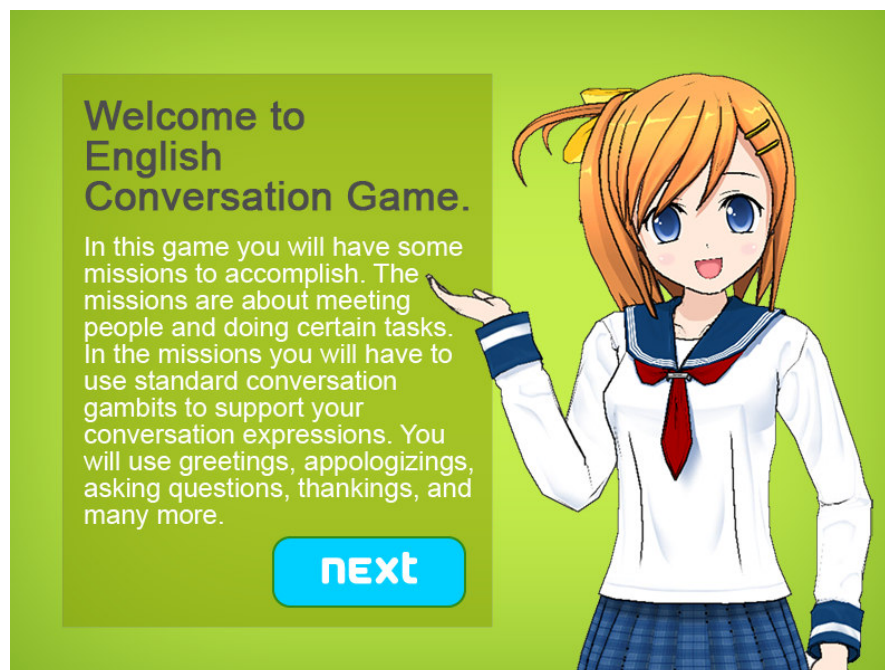


Figure 4.2 Welcome Page

Missions

This page presents the main missions to be carried out in a visual novel game of English conversation. At this early stage, it only serves one mission, namely Meet Professor Joe.



Figure 4.3 Mission Page

C. Mission Detail

This page is an explanation of the mission taken, namely Meet Professor Joe. The page is described about who Professor Joe so that he may be known, and how to meet him.



Figure 4.4 Mission Detail



Figure 4.5 Conversation sample

D. Validation Result

The validation by the media experts is shown in table 4.1 While the validation by the material and content experts is shown in table 4.2.

Table 4.1 Validation Result of Media Experts

No.	Indicator	Number of Indikator	NILAI		Percentage (%)
			Validator I Dwi Susanto, M.T	Validator II M.Hasbi Assidiqi, M.T	
1	Interest	5,6,7,8,9	20	20	90
2	Font type and size	1,2,3,4	16	20	96.7
3	Layout and colors	10,11,12,13	20	20	100
4	Audio	14,15,16	12	15	86,7
5	Organization of delivery	17,18,19,20	16	18	85
Sum of individual score			84	93	
level			Very High		
Sum of group score			177		88,5
level			Very High		

Based on the value of the variable corresponding media expert validation results reported in Table 4.1, the findings of the analysis can be described as follows:

- The value of the percentage of "attraction" is 90%, which indicates that the extremely high level of feasibility.
- The percentage value "shape and size of the letter" was 96.7%, which indicates that the extremely high level of feasibility.

- c) The percentage value "layout and color" is 100%, which indicates that the extremely high level of feasibility.
- d) The percentage of "audio" is 86.7%, which indicates that the extremely high level of feasibility.
- e) The percentage value "delivery organization" is 85%, which indicates that the extremely high level of feasibility.

Table 4.2 Validation Results of Content Experts

No.	Indicator	Indicator Items	SCORE		Per-centage (%)
			Validator I Irwan Sumarsono. M.Pd	Validator II Dr. Imam Dui Agusalim	
1	Conformity with the syllabus	1,2,3	12	15	91,1
2	Conformity with the SAP	4, 5, 6, 7, 8, 9, 10	28	35	90,5
3	suitability of the material	11, 12	8	9	90
4	suitability of the material	13, 14	8	10	86,7
5	suitability of the material	15	3	5	86,7
Sum of individual score			59	74	
level			Very High		
Sum of group score			133		86,7
level			Very High		

Based on the value of the variable results of the validation by the experts material reported in Table 4.2, the findings of the analysis can be described as follows:

- a) The value of the percentage of "conformance with the syllabus" is 91%, which indicates that the extremely high level of feasibility.
- b) The percentage of "conformance to SAP" is 90.5%, which indicates that the extremely high level of feasibility.
- c) The percentage value "material suitability" is 90%, which indicates that the extremely high level of feasibility.
- d) The percentage of "suitability evaluation" is 86.7%, which indicates that the extremely high level of feasibility.
- e) The value of the percentage of "suitability learners" is 86.7%, which indicates that the extremely high level of feasibility.

E. Product Test Results

In this development research, product trials aimed to measure the quality English conversation game to four students of grade 1 A distance education program PENS randomly selected through questionnaire data. The results of product trials are shown in Table 4.3.

Table 4.3 Questionnaire Results of Products Testing

No.	Indicator	Indicator Items	SCORE				Per-centage (%)
			Student I	Student II	Student III	Student IV	
1	Attractiveness of the Game for students	2, 5, 6, 7, 8, 9	29	30	30	24	94,2
2	Usefulness of Game for students	1, 3, 4, 10	20	20	20	16	95
Sum of individual score			49	50	50	40	94,6
level			Very High				
Sum of group score			189				94,5
level			Very High				

Based on the value of the variable corresponding product test results reported in Table 4.3, the findings of the analysis can be described as follows:

- a) The value of the percentage of "attractiveness of the Game for students" is 94.2%, which indicates that the extremely high level of feasibility.
- b) The percentage of "usefulness Game for students" is 95%, which indicates that the extremely high level of feasibility.

4. Conclusion and Suggestion

A. Conclusion

English conversation game for a distance education program has been successfully completed. This is evident from the Game that was developed validation assessment by the experts who obtain material with a very high eligibility is 86.7% based on valuation attractiveness factor, the shape and size of the font, layout and color, audio, and organizing delivery. According to the validation of a team of media experts, the result showed the percentage of 88.5%, which means a very high level of feasibility factors based on the syllabus of conformity assessment, compliance with SAP, material suitability, fitness evaluation, and suitability learners. The test Game product development research is obtained percentage of 94.5% assessed the attractiveness aspect of the Game for the students, and usefulness of the Game for the students. Thus, the teaching of English conversation game for distance education programs PENS is declared fit after seeing the results of validation that has been mentioned.

B. Suggestion

In order to maximize the benefits of teaching Game developed in this study, the researchers suggest several aspects to note in dissemination product on a wider target, and further product development advice.

1) Product Dissemination advice on Wider Target

Model as an instructional Game has been produced in this study can be used as a template for other areas of education, particularly for distance education.

2) Suggestions for the next Product Development

- a) Assessment indicators and media materials must be propagated to explore aspects thoroughly for maximum results.
- b) Percentage viability of matter and the media has not reached 100%, thereby teaching Games on this research can be developed.
- c) It should be added or reproduce validation to media experts, the expert material, and tests on students to improve the accuracy of the feasibility of Game.

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