

Tailored RPG for Improving Reading Skill

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Abstract: Utilizing traditional games or digital games to improve students' learning interests has been a popular method. This study investigated how two Indonesian students can improve their reading abilities using tailored role-playing games (RPGs). The significance of this study is to help teachers, parents, researchers and students in learning and teaching reading strategy through RPGs effectively. Interviews, direct observations, students' assignments and games were used in analyzing the data. The findings indicated that both participants' vocabulary capacities have improved through playing the games. They also interested in RPG as an alternative strategy to improve their reading skills because they learned English through animation, battles, interesting dialogues, songs and attractive stories in the tailored RPGs. The findings also indicate the characteristic gender differences in learning English through RPGs.

Keywords: Role Playing Game, language learning, reading comprehension

Introduction

Reading comprehension is an important issue for English learners. *National Center for Educational Statistics* defines reading as "an active and complex process that involves understanding written text, developing and interpreting meaning, and using meaning as appropriate to type of text, purpose and situation" (Ertem, 2010). Without comprehension, students could only memorize vocabulary, recite dull sentences, or memorize what they have been taught without true understanding. This is oral drill or repeating text using simply memorization (Paris, & Hamilton, 2008).

As cited in *National Center for Educational Statistics*, the result of *National Assessment of Educational Progress* (NAEP) stated that recently, children struggle with reading. The result shows that about 33 % of fourth graders are not able to achieve a "basic" level of proficiency on the NAEP reading test (NCES, 2007). When the United States focused on building up students' reading abilities, other countries also care about the same issue, such as Indonesia and Taiwan. Even though English is neither the official language, nor the lingua franca in Indonesia, it is required and also important for Indonesian to learn English.

National Assessment of Educational Progress (NAEP) states that "students manifest the reading comprehension skills using questions on various types of reading skills" (Rapp et al., 2007). Hence, based on the research of *Teacher Training Program in Teaching English to Children through Multimedia*, children today spend significantly more time watching TV and movies than they do reading. The issue is about the rapid development of technology which affects all aspects of human life, including education (Lianawati, 2011).

Therefore, this study uses self-made RPGs (role playing games) as an alternative reading strategy to improve students' reading skills. The uniqueness of this game is that as a game master, a teacher can create the material or the content using his/her imagination.

Moreover, the dull classroom assignments can be modified into intriguing demands or tasks in the game for players (also students beneath this circumstance) to accomplish. Furthermore, both the content and the quest can be designed based on the learning needs of designated students.

1. Review of Literature

1.1 Reading skill & reading strategy

“Reading is about understanding written texts that involves both perception and thought” (Pang, Muaka, Bernhardt, & Kamil, 2003). “Reading skill is a focus on the component processes where individual differences in reading skill become a matter of understanding how these processes and their interactions contribute to successful reading outcomes” (Pefertti, 2001). Reading strategies are defined as “plans for solving problems encountered in constructing meaning” (Duffy 1993, as cited in Yan, 2004).

Yan also explains that reading strategies help readers to interpret the text (Yan, 2004). One of the strategies which can improve children’s reading skill is to use a kind of picture that helps some students better to understand. This picture is called a *graphic organizer* such as; the story elements (problem, solution, main character, and so on) in a way that is appealing to visual learners (Himes, 2007).

In another way, Shanahan mentions the distinction between *strategy* and *skill* in reading. Skills are learned, trained, and eventually applied effortlessly. Reading comprehension is about *strategy*: not faster, but better (Shanahan, 2005). Pefertti defines reading skill as an individual’s ability on some reading assessments (Pefertti, 2001).

1.2 Traditional role- playing game and language learning

Phillips (1993) defines RPG as an interactive story telling in which the game master creates the basic plot elements (*often based in fantastic or heroic genres*) and the players shape the narrative through their actions within the context of the game. “The game is played through the verbal interchange of the players, making it ideal for language learners” (Phillips, 1993).

According to Lynne, “reading comes alive for students when classroom teachers incorporate creative drama into the whole language curriculum (1992).” By employing role-playing games in language classrooms, not only the students can enjoy the playful learning atmosphere, but also the teacher can interact and cooperate with the students more effectively. In addition, “creative drama” and role-playing games “deepen students’ contact with literature by permitting its embodiment.” (Lynne, 1992)

1.3 Using RPGs for language learning

Gerber (2009) states that the “RPG is similar to literature in many aspects.” In addition to be able considered as an interactive form of storytelling, the RPGs usually contain intriguing plots with “compelling conflicts that must be solved.” When solving the conflicts and problems, the player has to think and act immediately (within the time limit most of the time) to accomplish multiple quests. “Narratives and cut scenes (mini movie-like scenes that occur during game play) help to support the plot and to create a fully immersive adventure.” (Gerber, 2009)

The advantage for using RPGs as language learning is to improve English reading. In the reading, a teacher finds that RPGs is useful for checking student comprehension as

well as engendering a more thorough appreciation of literature. One of the examples is teachers preparing RPG scenarios based upon a reading assignment as a base of review (Diaz-Rico, 1992, as cited in Phillips, 1993).

According to Phillips (1993), most RPGs are “based on fantasy or heroic literature,” but teachers would like to develop games from any genre when using RPGs in their classroom. In this way, they may be able to design games to fit any course content.

2. Method

As a case study, this research project invites two Indonesian students to play the role-playing games (RPGs) which were designed especially for them to improve their English reading abilities. The main purpose is utilize tailored RPGs as an alternative strategy by incorporating animation, battles, interesting dialogues, songs and attractive stories into the tailored RPGs as a benefit to improve students’ reading skills.

2.1 Purpose of the study

The objective of this research is to explore the effects of using RPGs as an alternative strategy to improve students’ reading skills. For this purpose, each student is presented with two conditions: (1) digital, animated role-playing games with reading activities; (2) traditional reading texts (printed version). Students’ reading comprehension was measured by multiple-choice comprehension tests.

The purpose of this study is to help teachers, parents, researchers and students in learning and teaching reading strategy through computer games (RPG) effectively. This research was conducted to determine the efficiency of RPGs as an alternative strategy to improve children’s reading skills. In general, the research is established to answer the following questions: “Can tailored RPGs improve student’s reading skills?” and “How do the students interact with the tailored RPGs?”

2.2 Participants

The first participant is a male 3rd grade student from a private elementary school in northern Taiwan. He has lived in Taiwan for only one year, and his first language is Indonesian while Chinese Mandarin is his second language. As all the students in Taiwan, he needs to study English as a major subject. However, his parents did not send him to a cram school to learn English like most other Taiwanese students. He speaks Chinese at school and Indonesian with his family. He does not like to read books, but he likes to play video games (PlayStation).

The second participant is a female student in grade 2 from the same private elementary school as the first participant. Even though she is only 7 years old, she has lived in Taiwan for two years already. In addition, she started to learn English in a cram school when she was three years old, and learned English three times a week. She uses Mandarin as the second language, Indonesian as the first language and English as a foreign language. She speaks Chinese at school and Indonesian with her family. She likes English reading but rarely playing video games.

2.3 Material and Procedure

The main researcher of this study has created several role-playing games by using RPG Maker VX 1.02. The software has been purchased by the school department. Since the

main researcher is an Indonesian student studying in Taiwan, she is interested in creating digital role-playing games for assisting Indonesian immigrants in Taiwan to learn English. So far, she has designed five games for this purpose. In this study, two games have been tested.

2.3.1 Semi-structured interview

The interview was divided into three sections. The first part was interview with parents. In this part, parents were asked about general information which relates to the participants' education background. The second part was interview with participants before conducting the experiment (playing RPGs). In this section, participants were asked 20 questions about the meanings of sentences that were used in the game (e.g. "Do you want to go home?", "Do you want to find your sister now?"). The third part was interview with participants after doing the experiment. In this section, participants were given the posttest and were asked 5 questions about their perception related to the game (e.g. do you enjoy playing this game? Give the reason. What is the part of this game that makes you love it?). All items were written in English and translated into Indonesian by the interviewer.

2.3.2 Physical artifacts

The physical artifacts in this research include students' reading assignments (paper tests), field notes (observation notes), and RPG tests.

The student paper test was divided into two experiments. The first experiment used two reading comprehension to evaluate 10 questions by multiple choice questions and 20 questions to be translated in interview using Indonesian. The translation was made for assessing their linguistic performance. These 20 questions and the reading comprehension were assessed in RPGs. In the first step, the students were given a worksheet to assess the reading comprehension and to translate 20 questions as the pretest. After playing RPGs, the students were given a worksheet to assess their improvement as the posttest. The reading materials were the same as the reading content in RPGs.

The second experiment used vocabulary learning to assess 80-item vocabulary test. In the first step, the students were given a worksheet to assess their vocabulary knowledge as the pretest. After playing RPGs, the students were given a worksheet to assess their improvement as the post test. The vocabulary was presented in the game. The assignment was given to the participants before and after playing RPGs.

- *Observation Notes*

This study used observation to collect the data and to observe the students when they were playing RPGs. This activity was recorded by using camera and was noted by observer. This observation recorded the participants' behavior, motivation, knowledge, reaction, difficulty, interest, and ability to know the direction in the game.

- *Tailored RPG*

Another material was RPGs. Two games were given to the participants and each game has a special focus. The first game was focused on reading comprehension, and the second game was focused on vocabulary learning related to Indonesian culture. Each part has challenges that should be finished by the participants. While playing the game, they should read the text carefully in order to get the clues about how to go to the next step.

The first game was named "Finding the Sister". In order to find the missing sister, the player should find the clues in the virtual school, book store, park and tree house. Every part has the challenges that should be completed by the player. As shown in figure 1 and figure 2, the participants were tested in reading comprehension as the challenge to get the

clue for the next text. In this game, the player can use 'space' to go to the next part of the reading.



Figure 1: Reading text title



Figure 2: Reading test sample

As shown in figure 2, after reading the text, the player should answer 5 test questions related to the reading text which has been read by the player. The test was set as multiple questions for lower level children.

In figure 3, after doing the test in the virtual class, the player should press the “space” button. The light and the sound which appear on the virtual table is a sign that the player has finished the test. This animation is given in order to the player gets the attention for the next direction. Then, the teacher character announces the next direction for the player. This command is set in order to access the player’s understanding.



Figure 3: Teacher command



Figure 4: Teacher compliment

As shown in the figure 4, the teacher character gives the compliment if the player finishes the reading. If the player makes one mistake, the teacher character will give the second remedial test until the player finishes the test without any mistake. The compliment is given to build the motivation for the players to continue for the next step.

2.3.3 Data collection and procedures

This study used direct observations to collect the data about students’ attitude when they were playing RPG. In addition to the written or typed field notes, the learning process was also recorded by video camera. The purpose is to observe the participants’ behavior, motivation, knowledge, reaction to face difficulties; interests, and abilities to know the directions in the game.

The interview, observation and physical artifacts were given to 2 participants during summer vacation. Before playing the game, the participants were asked to translate 20 questions from English to Indonesian. Next, the participants were given two worksheets as their reading assignments. After doing the reading assignments, the participants played the

game. Then, the participants were interviewed about their interests and difficulties when playing the game. The parents were interviewed about participants' education background before conducting the experiment.

3. Results & Discussion

In this section, researcher describes the findings according to the two research questions and divides it into three parts: reading comprehension assignment, interview results and observation results.

3.1 Reading Comprehension Assignment

The results are presented in the comparison table the reading comprehension test before and after using RPGs.

Table 1: Reading Comprehension Assignment Results

Reading Comprehension Assignment Results				
Experiment	Pretest		Posttest	
	P1	P2	P1	P2
Game 1 Reading Comprehension 10 questions	two mistakes	two mistakes	one mistake	one mistake
Game 2 Vocabulary Learning 80 words	21 mistakes	29 mistakes	6 mistakes	10 mistakes

The findings show that the reading comprehension of the participants improved after playing RPGs, especially vocabulary learning (game 2). As presented in Table 1, participant 1 only knew 59 words but his vocabulary increased after playing RPGs. He learned 15 more words in the second game. In the second game, participant 2 knew 51 words but her vocabulary increased after playing RPGs. She learned 19 more words after in the second game.

3.2 Role Playing Game Observation Results

The finding showed that the participants improved their vocabulary after playing the games. The comparison results between participant 1 and participant 2 are described below.

Participant 1

In the first experiment (game 1), participant 1 knew the direction of the button in computer tools. Unfortunately, he did not read the text carefully. He passed some dialogs because he did not like reading too much text. If he did not know the meaning of a sentence or a word, he asked the researcher to translate it in Indonesian. Among the different reading materials, he did not like the song part, but he liked the motion pictures. The part of the game that he loved the most was the park. It was because he interested in the virtual character. This section not only showed the text in the dialogue box, but also using the voice to support the text. For example, the participant heard the voice: "what time is it?" then the dialogue showed the text "what time is it". Participant 1 seemed to have lower motivation to play the game until he played this park section. He enjoyed the game as well as learned more English. However, all in all, he claimed that this game was not interesting enough since there were no battle, weapons and monsters, like other games

he played before. Participant 1 is more interested in the second game than the first one. He explored each part to find something new behind the animation. For example, when he touched the mountain, the animation showed the text which explained about one Indonesian mountain. He learned some vocabulary words there. If he did not understand the meaning, he asked the researcher. He also learned Indonesian folklore. He loved the section where the character was changed into a stone by his father. He learned some words in this section. He also loved the dancing part, when the character wanted to get the clue to enter the gate and found the clue on the bridge. He learned the meaning of “bridge” in this part. Since he was interested in the game, he read the text very carefully. The most interesting part for him was the battle section. In this game, he learned some vocabulary words. For example, he did not know the meaning of “attack”. When he was playing “the battle”, he detected the meaning of attack by his own understanding. He commented that: “Oh...I know the meaning of attack is *“menyerang”*. In the end of the game, he commented that he loved this game because he found “the battle” and “being a hero”.

Participant 2

Participant 2 read the text in the game carefully since in the game 1. She tried to translate the words that she never knew before by the clues. For example, she did not know the meaning of “horse carriage” but she got the meaning by looking at the animation. Sometimes, she would guess the meaning from the contexts which is a very effective reading skill. In the second experiment (game 2), she still used the context or the virtual picture to help her understand new vocabulary. For example, in the beginning of the game, she knew the meaning of “village” when she saw many houses beside the mountain. She also knew the meaning of “bridge” when she was going up to the bridge and looking at the virtual picture in the background. She was more interested in this game than the previous one because of the background sound effects and the interactive activities. She really loved the village part. She laughed when she was reading the dialogue of two Indonesian people using ethnic language (bilingual). For example, the character said; “*lewat kono loh numpak dokar!*” (You can go over there and you can go by horse carriage). From this dialogue, she learned not only English vocabulary but also Javanese (one Indonesian ethnic language).

3.3 Interview Results

There were interesting answers gained from the interview. The interview results between participant 1 and participant 2 were not the same, even though they used the same alternative strategy to improve their learning skill.

The first interview was given to the participant as the pretest before playing the game in the first experiment. In this section, he could not answer 16 questions and did not know the meaning of 4 questions. In the post test, when the researcher reviewed the questions, he improved by knowing 2 more sentences. He learned this from the game. The reflection question found that the participant did not really enjoy playing this game, but he preferred playing this game as an alternative strategy to improve his reading skill than reading English books. About his favorite part of this game, he mentioned that it gave him a little bit the challenge to find the clue “tree house” in the park. The most difficult part for him was the school part. In this section, he should get the clue from the reading passage, and he admitted that he did not like reading English.

He is interested in the second game because the game was set as fantasy game to fight the enemy. He also stated that the most interesting part was “the battle” because he fought the enemy. He mentioned that in this game there was no difficult part.

In the posttest, the second participant improved by learning 6 more sentences from

the game. Based on her reflection, participant 2 “loved this game because of the rewards.” The part she loved the most was “in the house” because of the fun design. The most difficult part for her was “the tree house” because it was difficult to find the sister in the box.

As to the second experiment, the participant improved by learning 19 more vocabulary words. She also stated that the most interesting part was “the village part” because she found two Indonesian people. These characters were unique and related to her ethnicity which aroused her interests the most. The most difficult part for her was “in the school” where she should get the clue through reading a story. She mentioned that the questions were difficult for her to answer.

Conclusion

The researcher found that the findings answered two research questions. The finding answered the first research question, “Can tailored RPGs improve student’s reading skills?” it can be concluded that RPGs improved the Indonesian students’ reading skill. The findings showed that RPGs helped them to know the meaning through the animation, the virtual pictures, the clues and his/her understanding to interpret the meaning by his/her experience using RPG. The finding also described that RPGs increased vocabulary in each part. The finding answered the second research question: “How do the students interact with the tailored RPGs?” It can be seen that the game helped the participants to increase their motivation in reading. These strategies helped the participants to have more concentration in reading the passage.

This study was a pilot study and needed further research with a large number of participants to prove the validity of this game. In addition, RPGs has some limitation. For example, the players could not back to the previous reading when they wanted it. If they had a mistake, they should wait on a remedial test. The dialogue also is too small and cannot be changed to be colorful words. The suggestion for the future research is the game will be made according to the gender. The creator should be created the game like the story. The theme and the design of the game should be related to the gender of the participant. It is better if the game is made with different instrumental music in each part. In the future, this study will create some games using voice or sound to support the text and put some animations with clear direction. It can be an interesting game and build the motivation to learn English through this game.

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APPENDIX I: Experiment 1

Interview for participant (before & after playing the game)
Ask the participant about the meaning of these sentences!

1. Do you want to go home?
2. Do you want to find your sister now?
3. I put the homework on the table in your bedroom!
4. You should study first!
5. Have you finished your homework?
6. Is that correct?
7. What is the first step for me to find my sister?
8. You should go to school and ask the teacher!
9. Can you help me to find my sister?
10. Do you want to learn?
11. You should buy a map!
12. You should go to the book store!
13. You can use horse carriage
14. The map on the table beside the bookcase
15. Go to the cashier and buy this map!
16. You can take the money from blue box, open it!
17. You should go by boat.
18. You can ask the girl, over there!
19. You are wrong!
20. Find a tree and go inside it, you will find your sister.

APPENDIX II: Experiment 2

Direction:
Before and after conducting the experiment (playing RPG), the participant is interviewed to do the test! Translate these vocabularies from English into Indonesian!

Vocabulary

Village	Go	Power
House	Come	Night
Naughty boy	Sorry	Playing
Stone	Forget	Question
Good boy	Try	Kill
The Lesson	Search	Right
Chair	Dog	Together
Human	Little girl	Prepare
Newborn	Button	Stop
Class	Use	True
Animal	Song	Want
Appraise	Size	Ready
People	Parent	Listen
Bus	Brood	Go to
Dance	Family	Get out
Box	Change	Excellent
Food	Remember	Forget
Drink	Story	Bridge
Cake	Obey	Place
Souvenir	Look at	House carriage
Coolest milk	Look for	Photo
Name	Cry	Beat
Motors	Country	Kingdom
Play	Help	Chase
Boat	Magic	Spicy rice
Island	Child	Delicious
World		Attack