

The effect of HMBN game on students' mastery of vocabulary and language expression

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ABSTRACT

The purpose of this study was to find out the significant effect of using the Harvest Moon Back to Nature (HMBN) game on students' mastery of vocabulary and language expression at the first-grade students of SMAN 2 Kendari. This study used a pre-experimental design with one group pre-test and post-test design. The population of this study was all the first-grade students of SMAN 2 Kendari, totaling 300 students. Purposive sampling was used a technique of taking the sample in this study. The sample of this study was the first-grade students of SMAN 2 Kendari who liked playing games, totaling 30 students. The instrument of this study was a vocabulary mastery and language expression test, namely translation and fill-in-the-blank consisting of 33 numbers. The results of the study showed that there was a significant effect of using HMBN game in improving students' vocabulary mastery and language expression. It was proved by the improvement of students' mean scores from the pre-test to the post-test. The mean score of the pre-test was 50,60, while the post-test was 73,20. It was supported by the t-test results, the value of Sig. (2-tailed) = 0.000 with $\alpha = 0.05$. it meant that H₀ was rejected and H₁ was accepted because of the value of Sig. (2-tailed) was below the α value. Therefore, it could be concluded that there was a significant effect of using an HMBN game on students' mastery of vocabulary and language expression at the first grade of SMAN 2 Kendari.

Keywords:

learning media, game application, mastery of vocabulary.

1. Introduction

Vocabulary is one of the English sub-skills or components that should be taught to the students because vocabulary has the most important role for all languages. According to Noberth & McCarthy (1997), the first thing to master language learners learning a language, especially English, is vocabulary. Coady & Huckin (1997) said that vocabulary is the language fundamental and important to the typical language students. Without a good vocabulary, students cannot speak effectively or convey their thoughts effectively, either verbally or in writing. This means that high school students should master the English vocabulary and its grammatical rules in order to communicate with other students. As Krashen (1993) found that most students' vocabulary undeniably grows through incidental learning, such as constant exposure to language they understand through listening, reading, speaking, and writing exercises. Becker in Wangloan et al. (2022) emphasized the significance of vocabulary development in determining how much vocabulary a student has mastered using academic language learning materials. He explained that lack of vocabulary

comprehension is a major cause of student failure in school. However, it does not mean that a clear vocabulary teaching is less essential for foreign language students.

The researcher conducted an observation in SMAN 2 Kendari and found that there were three causes that made the students difficulties in learning English vocabulary. First, students had trouble remembering all the unfamiliar words in the text. They were also unwilling to read the text or solve the task. Second, students had difficulty in comprehending or understanding the meaning of unfamiliar words and most of the them did not know the vocabulary of the text. Third, students were unmotivated and bored to study. Students tended not to pay attention when the teacher was explaining the material. Thus, the teacher should help them learn vocabulary and give them some learning strategies.

Based on the problems above, it is needed to apply good techniques which are effective, fun, and creative in vocabulary teaching. most students' vocabulary undeniably grows through incidental learning, such as constant exposure to language they understand through listening, reading, speaking, and writing exercises. Hence, the researcher tries to enhance students' vocabulary through an offline game, namely Harvest Moon Back to Nature (HMBN). This game has some vocabulary in it when it is played. This game also teaches the importance of working hard in life. Hadfield (1987) mentioned that a game is an activity with rules, goals, and a fun factor. Games can be a good way to practice language and provide a model of how students will use the language in real life in the future. Gee (2005) believed that games are known as conceptual models that work across informal and formal learning contexts. Warschauer & Healey in Sørensen & Meyer (2007) stated that in language teaching,, because games are designed to be a fun element in language learning, they have often been used to improve motivation and promote true communicative practice. Game can motivate learners to contribute more in learning activities (Arief et al., 2020). It can build a more enjoyable learning process.

HMBN game is a game that has a lot of dialog conversation. Therefore, to understand the activities that are done in the game, the player must read the instructions or dialog on the HMBN game. According to Budiman (2019), the HMBN game has been able to survive in the minds of audiences from different walks of life for nearly two decades. The HMBN video game began its heyday in Indonesia when it was released for the first time by the Sony Playstation in 1997 (Budiman, 2019). This video game seems to represent the social life of rural residences, for example farmers who work. The layers are invited to enter a simulation room to become a farmer who in his life has to farm, raise livestock, socialize, and take part in competitions held by local residents. HMBN game is made in such a way as to be able to produce very interesting gameplay such as magic which is very dynamic, not boring, and can bring players into the stream of consciousness in playing this video game.

Therefore, the researcher tries to give a useful distraction for students to be able to improve their vocabulary. This research is conducted by the researcher outside of the student's learning and used to know how far the offline game increases students ' vocabulary and makes students motivated to master the vocabulary. Dealing with the statement, the researcher was interested in conducting a study entitled "The effect of HMBN game on students' mastery of vocabulary and language expression". This study focused on finding out the students' mastery of vocabulary and language

expression, especially in reading texts. This instrument was limited to the ability to know the meaning of word separately and the productive control was filling the gap with the answers provided.

2. Methods

In this study, the researcher used a quantitative method with a pre-experiment design. There were three procedures to conduct the data, namely pre-test, treatment, and post-test. The population was all of the first-grade students in SMAN 2 Kendari, totaling 300 students. While the sample of this study was 30 students who liked playing the game. Purposive sampling was used a technique of taking the sample in this study because the researcher could not force students who did not like games to play games. The instrument was a vocabulary test with 33 numbers, focused on the vocabulary test and designed based on the vocabulary target in the curriculum. The test consisted of a pre-test before giving treatment to know students' English ability and a post-test after conducting treatments. The marking scheme of the study was 1 for the correct answer, and 0 for the incorrect answer. The formula was as follows:

$$\text{Mark} = \frac{\text{"Total of correct answer"}}{\text{"Total of test items"}} \times 100$$

(Sudjinah in Witra (2015))

Before doing the treatment, the researcher gave a pre-test to know the student's ability in vocabulary. Then, the researcher gave the treatment to the experimental group by using the HMBN game on students' mastery of vocabulary and language expression. Post-test was given to know the students' mastery of vocabulary and language expression after being treated by using the HMBN game.

There were two kinds of techniques used in analyzing the data of this study, namely descriptive statistic and inferential statistic. A descriptive statistic was used to understand the differentiation in the results between the pre-test and post-test in the experimental group. By using descriptive statistics, the researcher presented how to show the data through charts, tables, frequencies, standard deviation, and maximum and minimum scores. Meanwhile, a inferential statistic was used to test the hypothesis. The researcher employed a pair-sample t-test by using the SPSS application version 24 to know the significant effect of using extensive reading in the HMBN game.

3. Result

Students' Mastery of Vocabulary and Language Expression on the Pre-test

A pre-test is done before conducting the treatment using the HMBN game. The purpose of the pre-test is to measure the students' vocabulary ability before the treatment. There are 50 items of the various test which is used to find out the students' mastery of vocabulary and language expression both pre-test and post-test in this study.

Table 1. The frequency and percentage of students' scores on Pre-Test

No	Score	Frequency	Percentage(%)
1	30	2	6,70%
2	33	1	3,30%
3	36	1	3,30%
5	39	2	6,70%

6	42	3	10%
7	45	2	6,70%
8	48	2	6,70%
9	51	3	10%
10	54	3	10%
11	57	3	10%
12	60	3	10%
13	63	2	6,70%
14	66	1	3,30%
15	69	1	3,30%
16	72	1	3,30%
Σ 1518		30	
Mean		50,60	
Minimum Score		30	
Maximum Score		72	100%
Range		42	
Standard Deviation		11,30029	

This is the student value data at the time of the pre-test. This data indicates that half of the students have a value below enough. Thus, the researcher concludes that students in this school need new, interesting, and varied media that can increase their motivation to learn vocabulary. This section presents data on the student's mastery of vocabulary and language expression of the pre-test. The lowest score of students on the pre-test is 6,70% (score 60-80) and the highest score is 3,30% (score 21-40). It means that there is no equal condition between the students who get a high and very low score for the first-grade students of SMAN 2 Kendari before giving them treatment by using the HMBN game.

To classify the students' achievement on the pre-test into very high to very low categories, the researcher uses Suhuri's (2008) classification as shown in the following table.

Table 2. Students' classification of mastery of vocabulary and expression on pre-test

Classification	Value	Frequency	Percentage
Very High	81-100	0	0,0%
High	61-80	5	16,70%
Enough	41-60	19	63,30%
Low	21-40	6	20%
Very Low	0-20	0	0,0%
Total (Σ)		30	100%

From the table, it can be showed that students at SMAN 2 Kendari have enough value in English. This is very appropriate to the criteria required by researchers, where the researcher wants to find students with enough ability to improve their skills at high and very high levels. Based on the result of the pre-test above, we can see the higher score in the experimental class is classified as "enough" criteria with 63,30% (19 students) followed by "low and high" criteria with 20% (6 students), then high 16,70% (5 students) neither very high nor very low there is no student (0,00%) who get it.

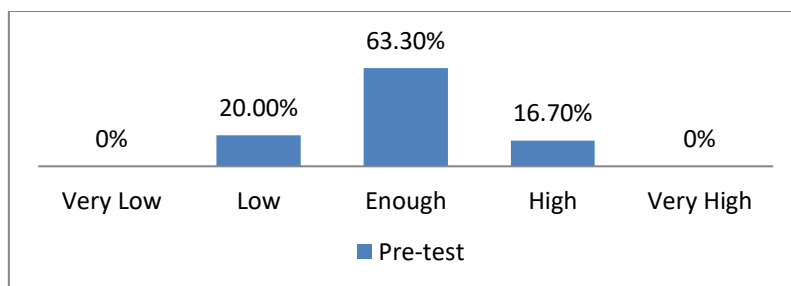


Chart 1. Distribution percentage of students' pre-test scores

The researcher describes the classification of students' mastery of vocabulary and language expression of pre-test in the chart and form as illustrated above those students with enough ability look very dominant with a percentage of 63,30%, which is then followed by low and high. Then, it is followed by nobody student into a very high and very low category. The dominant students' criteria are in the "enough" category. It means that the student's mastery of vocabulary and language expression on the pre-test is in the "enough" category (Suhuri, 2008).

Students' Mastery of Vocabulary and Language Expression on the Post-test

The students' scores of mastery of vocabulary and language expression after treatment (post-test) with an HMBN game can be defined in the following table.

Table 3. The frequency and percentage of students' scores on post-test

No	Score	Frequency	Percentage
1	57	2	6,70%
2	60	3	10%
3	63	3	10%
4	66	3	10%
5	69	2	6,70%
6	72	2	6,70%
7	75	3	10%
8	78	3	10%
9	81	2	6,70%
10	84	2	6,70%
11	87	3	10%
12	90	1	3,30%
13	93	1	3,30%
Σ 2196		30	
Mean		73,20	
Minimum score		57	
Maximum score		93	100%
Range		36	
Std. Deviation		10,55821	

The table above shows the student score when the treatment has been done. We can see that there are students who have a value below enough but very clearly see the mean of them increased which at the time of the pre-test is only 50,60 and post-test 73.20. Based on table 4.3, shows that in the very high category, there are 1 student gets scores of 93 and 90, two students get scores of 84,81, 72, 69, and 57, and three students get scores of 60,63, 66,75,78, and 87. From the computation of the data above is found that the minimum score is 57, the maximum score is 93 the mean score on the post-test is 73,20. Based on the mean score (73,20) above, it shows that the student's mastery of vocabulary and language expression on the post-test is in "high" criteria because most of the students are distributed in high criteria. It means that there is a

significant effect of using an HMBN game to develop the student's mastery of vocabulary and language expression.

To classify the students' mastery of vocabulary and language expression on post-test into very high to a low categories, the researcher uses Suhuri's (2008) classification as shown in the following table.

Table 4. Students' classification of mastery of vocabulary and language expression on Post-Test

Classification	Value	Frequency	Percentage
Very High	81-100	9	30%
High	61-80	16	53,30%
Enough	41-60	5	16,70%
Low	21-40	0	0,0%
Very Low	0-20	0	0,0%
Total (Σ)		30	100%

The table above presents the percentage of the student's score after treatment. We can see that there is an increase. That is initially dominated by students who have enough scores, but after the treatment, we can see that high scores dominated the students. We can conclude that there is a significant increasing after treatment. Based on the result of the post-test in table 4.4, this study finds that there are 30% of the students which classify as very high classification, there are 53,30% of the students who classify as high classification, there are 16,70% of students classified as enough, there is no student classified into low and very low classification. It means that the student's mastery of vocabulary and language expression of post-test is in "high" criteria because most of the students in the class are distributed in "high" criteria about 53,30%. The dominant students' criteria are in the high category. It means that the student's mastery of vocabulary and language expression of post-test after the treatment by using the HMBN game is in the "high" category (Suhuri, 2008).

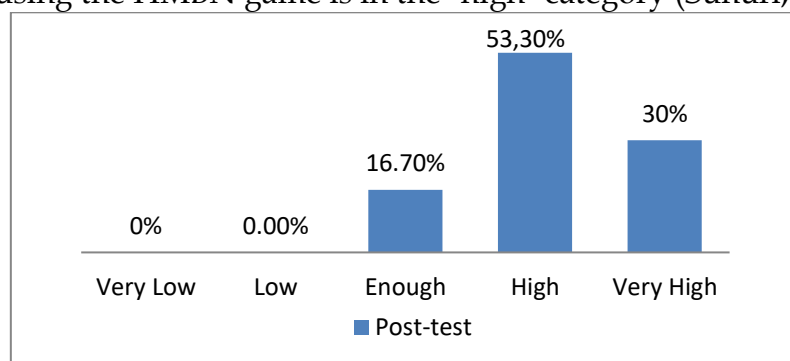


Chart 2. Distribution percentage of students' post-test score

The chart above serves to further clarify the previous table stating that the high value in students looks more dominant than the other values. Based on the result of the post-test shown on the chart above, this study finds that 30% of students which classified into very high classification, and there are 53,30% of the students are classified into high classification, there are 16,70% of students classified into enough classification. And no student classifies into low and very low classifications. It means that the student's mastery of vocabulary and language expression of post-test is in "high" criteria because most of the students in the class are distributed in "high" criteria about 53,30%. The dominant students' criteria are a high category. It means that the student's mastery of vocabulary and language expression of post-test after the treatment by using an HMBN game is in the high category (Suhuri, 2008).

Comparison of Pre-test and Post-test Scores in Experimental Class

The pretest score is dominated by students who get enough score (63,30%) while after being played an HMBN game, the score is dominated by a high score (53,30%) more explanation of comparison between pre-test and post-test results in class are seen in the following chart:

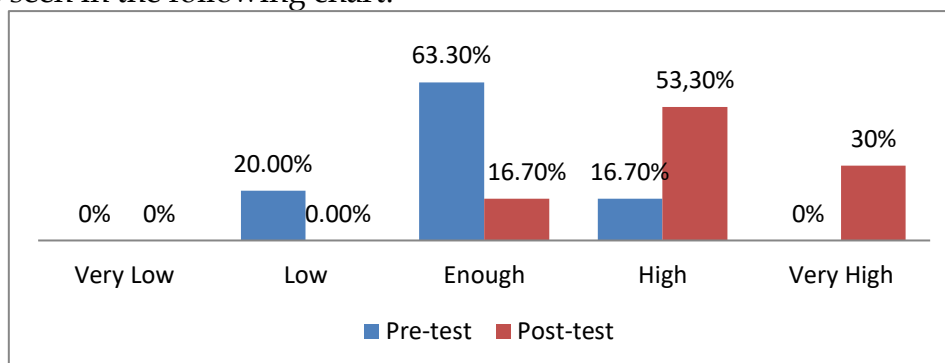


Chart 3. Comparisons percentage between Students' Scores on Pretest and Posttest

The chart above makes clear the differentiation between a pre-test and a post-test. We can see that the difference significantly happens to the students who have done the treatment. As presented in the above chart, the students who get "very high" criteria in the post-test 9 students (30%) while no one student get score "very high" score on the pre-test (0%), students who get "high criteria" in post-test are 16 students (53,30%) while in pre-test are 5 students (16,70%). Students who get "enough criteria" in the post-test are 5 students (16,70%) while in the pre-test are 19 students (63,30%), there are no students who get "low score" (0,00%) in the post-test while in the pre-test are 6 students (20%), and there is no students get "very low" in post-test and pre-test.

4. Discussion

This study aims to find out the effect of using HMBN games to improve students' mastery of vocabulary and language expression. This section will be discussing the result of pre-test and post-test and the treatment, which is applied in this study from overall data, it is clear that there is a significant gain in the students' scores on a vocabulary test. The researcher gave a vocabulary test for the first day or pre-test on 15 April 2019 to the first-grade students. The vocabulary test is a variety test, like translation and fill-in-the-blank.

Then, the second test or post-test was on 20 May 2019 in the first grade of SMAN 2 Kendari. The result of the study shows that the post-test has a higher grade than the pretest. Regarding language learning and teaching processes, Gee (2005) believed that games are known as conceptual models that work across informal and formal learning contexts. One of the most difficult categories in learning a language is vocabulary. This is caused by some learners' difficulty in remembering the vocabulary. Warschauer & Healey in Sørensen & Meyer (2007) stated that in language teaching,, because games are designed to be a fun element in language learning, they have often been used to improve motivation and promote true communicative practice. It can build a more enjoyable learning process.

One of the solutions is applying the HMBN game to entertain students in learning vocabulary. HMBN game gives an easy vocabulary for daily activity. So, they can remember the word easily. By mastering the HMBN game then the students can

also master the vocabulary contained in the HMBN game. In this era students always use a smartphone for anything, like translating vocabulary, playing games, listening to music, or searching for their assignments on google. The researcher wants to apply productive games that can entertain students and make them easy to remember vocabulary. In informal contexts, games are often associated with student leisure activities because games are an important activity in students' extracurricular activities and most interactive games give students with a communicative activity while playing games. Therefore, game players apply the language and accordingly learn it to participate in games (Sørensen & Meyer, 2007).

In applying the HMBN game in the first grade of SMAN 2 Kendari, the researcher gives them that game and asked students to install it on their smartphones. The games were told about the grandson of a farmer who comes to the Mineral's village to take the farm, but the villagers give him terms before living there, he must do the farm and make farmland as advanced as it was processed by his grandfather. And he must do a good thing for the villagers to be accepted as one of the villagers. Here, the HMBN game uses a familiar word for daily activity and is easy to remember for students, so the students have to do the terms from the villagers to finish the game.

HMBN games create a fun atmosphere in which students as well as teachers are more interested in learning vocabulary. According to Ashraf et al. (2014), interactivity in games means interaction patterns in conversation, transmission, consultation, and also registration. These concepts are partially compatible with socio-cognitive and communicative approaches to language learning.

According to Sørensen & Audon (2004), and Warschauer (2004), in extracurricular activities, students typically understand and use language as a communication tool to gather information and games. Whereas in schools, the language use and understanding are often understood as the purpose of task completion. Besides doing an interesting activity, students' mastery of vocabulary and language expression has significant improvement because the HMBN game contributes to the growth of meaning, so it can increase students' vocabulary.

HMBN game contains daily activity conversation and the vocabulary was familiar so it makes it easy to remember and a fun activity to do. Students are very enthusiastic to play that game. It can be seen from the screenshot that has been sent to the researcher every 2 or 3 days. The researcher can say that using the HMBN game is good media for developing students' vocabulary.

HMBN game makes students learning vocabulary enjoyable. The students gather money in that's game to buy some seeds, enlarge the hen house, enlarge their house, and propose to the girl in that game. So funny and like a real situation when the main character has overwork so he must come to the clinic to get some medicine. And the main character has to enlarge his house before proposing to a girl in the village, so students try their best to gather money in the game to makeover their house. And the students have to make a red heart for a girl that they liked. To make red heart students as the main character have to give what the girl like. Like diamonds, milk, cheese, flower, etc. Before proposing to the girl the students as the main character have to make sure that the girl has a red heart for him. It makes students hard work to make the girl happy and loved him as the main character.

In terms of gameplay, the benefits will be immediately felt. Harvestmoon is a game that demands its players have time management and resource management to get the maximum profit with such a small initial capital. This can be done by buying seeds, mining, or selling results on the mountain. With time and stamina limitations, players are required to streamline their activities in order to become successful farmers. This is of course very beneficial for the then-90s generation, as the majority of us as players are schoolchildren (elementary or junior high or the surrounding), and we are accustomed to playing games with this management gameplay, we are trained directly or indirectly in our daily lives.

HMBN game also provides a dialogue option where the player has to select a dialogue option in order to improve the pronunciation of the townspeople in certain events. It is of course demanding players to read and understand the conversation situation to be able to determine the appropriate answer and get more affection. Therefore, the HMBN game benefits from social terms and teaches us to do the same routines. After going into the second year towards the third, most of the available gameplay becomes limited. Gameplay will impress monotonous because players have to repeat daily routines such as watering crops/feeding animals/socializing with the inhabitants of the city, and this will happen repeatedly until the third year when the game ends. Surely some can be learned from this routine, in everyday life, especially in the world of work, we must be accustomed to facing routines and discover the essence of this life. Harvest Moon teaches that while all we do is a routine, it is our responsibility we must do to maintain stability and prosper.

HMBN game is included in the part of the enrichment. According to (Arikunto, 1986), enrichment is additional learning in order to provide new learning opportunities for learners who have such advantages that they can optimize the development of interest, talents, and skills. Learning enrichment studies develop thinking skills, creativity, problem-breaking skills, experimentation, innovation, discovery, art skills, motion skills, etc. Enrichment activities are activities given to fast-group students so that the students become richer in knowledge and skills or more in the learning materials they learn. Bloom in Suparno (2002) viewed learning enrichment as an experience or learner's activity that exceeds the minimum per-lesson determined by observing the aspects of knowledge, understanding, application, analysis, Synthesis by the curriculum and not all learners can do it ".

In applying an HMBN game, the researcher found some problems were: it is difficult to install the game because the games not available in the play store but have to do a long way in google to install the games. The teacher has to master the game before applying it to students and if the games end the students were very bored to play again because they have known about the game, and they feel not challenged and not interested to play again. They will ignore the rules in the games if the researcher asked to play again. The teacher cannot control whether the game is actually played by students. Teachers can only use a system of believing in students that they play the game and not others. As with the assignment teachers are given to the students, the teacher cannot ensure that the students themselves are working on the assignment of the teacher and not done by others. In these games, students participate voluntarily and there is no compulsion on the students, so this is purely

the desire of students. The researcher uses a belief system that students themselves play the game and not others.

5. Conclusion

Based on the findings and discussion above, this study can be concluded that using an HMBN game as a media is very helpful for the teacher. It helps the teacher to motivate the students to be more active in learning English, especially vocabulary as a subject of study. An HMBN game can be a choice for a teacher to improve students' mastery of vocabulary and language expression. In the HMBN game, the vocabulary is familiar because that game uses a standard vocabulary for daily activities. By mastering the HMBN game, the students can also master vocabulary and expression. The influence of using an HMBN game can be seen from the result of the student's vocabulary post-test. The result shows that the Posttest is better than Pretest. In learning English, especially vocabulary, they are used to memorizing words and it is very boring for students. It means that the students need some media. So, the writer can conclude that using an HMBN game is better to improve students' mastery of vocabulary and language expression. As a suggestion, the researchers also hope that other researchers in the future are interested in the same method in order to find solutions to existing research gaps, such as if students do not like games or if the devices on the student's handphone do not support the game.

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