



**GAME-BASED TEACHING STRATEGY ON LEARNING
SPELLING OF GRADE 3-MASAYAHIN OF
SEVILLA ELEMENTARY SCHOOL**

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ABSTRACT

This study aimed to determine the effectiveness of Game-based Teaching Strategy on Learning Spelling of Grade 3-Masayahin (28 learners) of Sevilla Elementary School during the school year 2022-2023. Specifically, this study attempted to find out the difference between the performances of learners after using the traditional way of teaching and the game-based teaching strategy. A teacher-made test was used in determining the spelling skills of the learners. The data gathered were discussed, analyzed, and computed using percentage, mean, and t-test. Based on the results of the study, the following findings hereby presented: (1) There is a difference in comparison to the means of the two tests. Post-test has higher mean value which showed that scores of the learners after the intervention increased. (2) The t-test analysis for Pre-test and Post-test resulted in a significant difference because the t value is less than the value of t under two tailed test and 0.05 level of significance. Therefore, since the null hypothesis was rejected, game-based teaching strategy has a positive impact to learners after integrating it to the lesson.

Furthermore, there are more learners experience positive impact than negative ones. Based on the findings and conclusion derived from this study, the researcher offers the following recommendations: (1) Integrate game-based teaching strategy in other grade levels. (2) Compare the results of different grade levels who undergo game-based teaching strategy. (3) Use different sets of game to apply in the intervention.

Key Words: *spelling skills, game-based teaching strategy*

I. Introduction

Two years ago, when pandemic arises, the mode of learning changed from face-to-face to distance learning as per advice by the government. Implementing distance learning wasn't easy particularly to the learners due to the lack of mastery into different skills such as spelling. Since distance learning gives them the opportunity to engage more into media platforms that helps them to enhance their English-speaking skills however they cannot spell out. They were able to understand the word correctly however they cannot spell the word correctly.

According to Wolf G. Children aged 4 to 6 in both groups, attempted to decode a variety of simple words such as *tan, sit, hen, pig, dot, and fun*. Analysis determined word decoding differences existed between the two groups. However, despite the pandemic the learners destructed by their environment specially in that technology. Also, lack of supervision of their parents is one factor affect that their learning progress.

People who are more physically active report greater levels of excitement and enthusiasm than people who are less physically active, according to Penn. *The Power of Interest for Motivation and Engagement describes the benefits of interest for people of all ages* (K Ann Renninger, Suzanne Hidi, 2015). One way to encourage the learners to develop their cognitive ability in spelling is through games. Using games is one method that can catch learner's attention. Game is an interactive way of



learning and effective way of injecting good usage of language. Through spelling games, children will be motivated to participate and the retention of the letter of a word may affirm.

Meanwhile, Mesmeh (2012), states that poor spellers expend time and energy thinking about the correct form of the words at the expense of thought flow, thus hampering the logic of texts. Poor spellers also tend to use simpler words which they can spell confidently, and avoid those that reveal their weakness. Hickling (2010) believes an essential factor informing the development of writing ability is the development of spelling skills. Templeton (1991, as cited in Simmons, 2007) found that students who were good spellers were better able to express themselves in writing than poorer spellers were. Proficient spellers have more time to devote to text structure, grammar and word choice, enabling their ideas, knowledge and skills to be conveyed through their writing (Nahari and Alfadda, 2016).

Statement of the Problem

This study determined the effectiveness of using game-based strategy in enhancing the spelling skills of Grade 3-Masayahin learners of Sevilla Elementary School, Sta. Cruz, Ilocos Sur for the School Year 2022-2023.

Specifically, it sought to answer the following questions:

1. What is the level of spelling skills of Grade 3-Masayahin learners during the pre-test and post-test?
2. Is there a significant difference between the learners' level of spelling skills after the implementation of the game-based strategy?
3. What is the effectiveness of game-based strategy in enhancing the spelling skills of Grade 3-Masayahin learners?
4. What are the impacts of game-based teaching strategy?

II. Literature

On Spelling Skills

Reading and writing are two of the basic foundations for the cognitive development of children. Without possessing these abilities, one cannot understand ideas and information, and even apply it using the knowledge they obtained in their schooling (Heckman & Masterov, 2007). One of the keys in establishing a firm groundwork in these two foundations is having a developed spelling capability (Daffern, et.al., 2017; Retelsdorf & Köller, 2013).

Spelling is a form of memorizing every word of a specific letter. It involves visual memory and sound-based recognition. This is the reason why having a progressive spelling development lead to one's master in literacy (Treiman, 2018). A study conducted by Ehri (2005) showed the connection of reading and spelling. A learner may write the word based on the sound they heard with the aid of visual memory, however, not all words are written exactly the way it is being pronounced. The mastery in spelling affect's a learner's knowledge of the alphabetic system which is being using in reading. On the other hand, development in spelling improves communication in the form of writing. They can properly utilize a certain word depending on the situation.

Spelling development involves levels until a learner can attain mastery in spelling. According to Young (2007), the first stage is the recognition of random symbols that represents words. A young learner may recognize a dog because of its parts such as its tail and ears. Secondly, the recognition of sound that represents words. One can differentiate the sound of "p" from "f" or "b" from "v." Thirdly, the learner's awareness of orthographic patterns followed by their application using syllables. Lastly, the application of derivational or meaning knowledge. All of these stages involve the function of the brain to be effective and efficient (Rapp & Lipka, 2011). As learners progress in their grade level, the circuitry in the brain that functions for spelling development changes and adapt for a higher-order of cognitive functioning such as emotions, language, ideas, and perceptions (Gentry & Ouellette, 2019).



Besides, students' spelling ability by using games has been increased. As having seen in the data presentation about the test result in students spelling ability by using games, Dewi, A. (2012).

Maxwell Heart (2020), game-based learning has emerged as an innovative learning technique that can increase student motivation, emotional involvement and enjoyment. Results show that students favored and were more engaged in the game-based lecture. Furthermore, Whitton (2007), that they consider the idea of a game to learn if it was the most effective way to learn something.

On Game-Based Teaching Strategy

For the past years, the evolution of teaching and learning materials had adapted to the type of learners in every generation. It was also implemented to aid the problems in education between teachers and learners (Kirkwood & Price, 2006). These problems such as slow academic progress of learners and lack of teaching resources in educators are link in improving learner's interest for a certain topic. Moreover, strategic approaches have been designed to improve engagement in both parties during a discussion and also to prolong the attentiveness of learners, this is called an interactive learning (Reeves & Hedberg, 2003).

Interactive learning is where a learner has been given a task or activity that enables them to participate while teachers facilitate it (Lile & Kelemen, 2013). It can be done physically or virtually since there are already available and accessible high-tech educational resources (Reeves & Hedberg, 2003). It is more effective with the utilization of interactive learning materials where teachers can introduce new information to learners and encourage their interest. It enhances learner's critical thinking, social interaction, cooperation, and other skills in the process (Li, et.al., 2018). It is very different from a plain lecture where the teacher speaks the whole time in the class and learners just listen attentively. Despite of these activities offered by interactive learning approach, not all learners can easily cope up. For example, timid learners have less social interaction and involvement especially to voluntary class discussions (Masek & Masduki, 2017). One solution for this predicament is to incorporate interactive learning activities and materials fitted for all such as game-based strategic approach (Tobias, et.al., 2014).

Game-based learning is defined as applying the principles of gaming for players to learn a certain situation or a topic for mastery (Trybus, 2015). It allows the learners to participate in a discussion in a playful and creative way. This concept has been popular these days, whether games were done physically or virtually, because of its unique approach (Pho & Dinscore, 2015). A study conducted to learners on higher education regarding the effects of games and simulations on their learning goals showed positive impact. They identified three learning results when games and simulations are incorporated in the learning process. It includes cognitive improvement, behavioral and affective aspects (Vlachopoulous & Makri, 2017). Moreover, the use of game-based is recommended to the teachers as an alternative media to teach elementary school learners for improving learners' spelling skills. In other words, the use of game-based teaching strategy was effective in improving the spelling skills of the learners (Dinyati 2014).

Another research utilized Game Accelerated eLearning (GAeL) for learners which was integrated in online learning. Its implementation resulted in self-driven motivation of learners, an increased in assessment value and academic output (Fladen and Blashki, 2005). In addition, game-based learning increases brain activation areas which is crucial for critical thinking tasks and memorization. These areas are also associated with emotions and rewarding elements. Also, the frontal area of the brain which is responsible for the learner's attentiveness are more activated causing efficient learning for learners (Kober, et.al., 2020).

All the literature and studies have contributed and gave insights to the researchers during the duration of the study.

III. Research Method

This study used quasi-experimental research and descriptive design. "Quasi" is a term that resembles experimental research but does not really apply true experimental method. It mainly focuses on cause-effect relationship with the introduction of an intervention to the respondents. An example of



this research design is the utilization of pre-test and post-test for testing a new integrated design or approach for a certain situation such as learning (Stratton, 2019). In this study, a game-based strategy called “Read It, Write It in the Air, Arm, and Body Language” was the new approach incorporated in the learning process after taking the pre-test. On the other hand, descriptive design was done with the use of a short survey form regarding the learning experience of learners. This will further identify the impact of game-based learning strategy on the spelling skills of learners.

Sources of Data

The subject of the study was selected using total enumeration. These are learners who are accessible to the researcher during their practice teaching. Research subjects are learners of Grade 3 – Masayahin at Sevilla Elementary School, Sta Cruz, Ilocos Sur this School Year 2022-2023. The whole class took the tests consisting of twenty-eight (28) learners in total.

Research Instrument

Pre-test and post-test were administered as the main data gathering instrument. These contains 20 items. The words that were spelled was also accompanied by sentences for learner’s guide. Each item was dictated by the teacher and learners spelled the words in another sheet of paper.

Furthermore, learners were asked to answer a short survey regarding their learning experience with the incorporation of game-based strategy in spelling. It consists of six choices and learners were asked to check the top three impacts of game-based teaching strategy in their spelling lesson. The researcher-made test were validate and checked by the cooperating teacher and the research and adviser.

Data Gathering Procedure

The research study was conducted during the practice teaching at Sevilla Elementary School, Sta Cruz, Ilocos Sur. The learners of Grade 3 – Masayahin took pre-test and post-test. The pretest was administered on the 16th of January, 2023. After the administration of the pre-test, the researcher introduced the game-based teaching strategy. While the post-test was administered on the first day of February, 2023.

IV. Results and Findings

This chapter shows the findings, gathered data, discussion of results and also the conclusions from the findings.

The study is about the of game-based teaching strategy on spelling development of Grade 3– Masayahin at Sevilla Elementary School. There were 28 learners who took the pre-test and post-test with the integration of the intervention. A short survey was also conducted to these learners after the tests.

Statistical Analysis of Pre-test and Post-Test

The learners spelled 20 items dictated by the teacher. Pre-test was done before the introduction of the intervention. This was followed by post-test as the final evaluation after the intervention was applied during the learning process.

Table 1: The Level of Spelling Skills of Grade 3-Masayahin learners of Sevilla Elementary School in the pre-test and post-test.

SCALE OF SCORE	PRE-TEST		POST-TEST	
	FREQUENCY	PERCENTAGE (%)	FREQUENCY	PERCENTAGE (%)
17-20	2	7.14%	12	42.86%
13-16	2	7.14%	9	32.14%
9-12	7	25%	4	14.29%
5-8	9	32.15%	3	10.71%
0-4	8	28.57%	0	0
Total	28	100%	28	100%
Mean	7.96	Fair (<i>F</i>)	15.18	Very Satisfactory (<i>VS</i>)

Table 1 shows the level of spelling skills of Grade 3-Masayahin during the pre-test and post-test.

It can be observed on the pre-test that among the 28 respondents of the Grade 3-Masayahin learners of Sevilla Elementary, 2 of them obtained a rating of “Outstanding” in which ranged from 17-20; 2 of them obtained a rating of “Very Satisfactory (S)” in which scores ranged from 13-16, as well in the rating of “Satisfactory (FS)” there are 7 respondents that obtained ranged 9-12; 9 of the respondents obtained a rating of “Fair” from 5-8; 8 of them obtained rating of poor in which scores ranged from 0-4.

While on the post-test result was 12 of them obtained a rating of “Outstanding (O)” in which ranged from 17-20; 9 of them obtained a rating of “Very Satisfactory (VS)” in which scores ranged from 13-16, as well in the rating of “Satisfactory (S)” there are 4 respondents that obtained ranged 9-12; 3 of the respondents obtained a rating of “Fair (*F*)” from 5-8; none of them obtained rating of poor in which ranged 0-4.

Generally, the computed mean for the level of spelling skills of Grade 3-Masayahin learners in their pre-test is 7.96 under the “Fair (*F*)” which means that the learners had still a difficulty learning spelling. Furthermore, after the intervention the post-test has been administered to the learners and the result of it was 15.8 under “Very Satisfactory (*VS*)” level which means that the learners did improve as an indication of the increase in the level of their spelling skills.

The result of this study is similar to Dewi, A. (2012), that the data indicates that the students’ spelling ability by using games has been increased. As having seen in the data presentation about the test result in students spelling ability by using games, that the scores obtained by the students is 60 (the lowest) to 96 (the highest).

Table 2. Level of Effectiveness of Game-based Teaching Strategy

	n	Mean (M)	Mean Difference (MD)	Computed T-value	Tabular T-value	Decision	Interpretation
Pre-test	2	7.9	7.22	10.09	2.05	Reject Ho	Significant
	8	6					
Post-test	2	15.					
	8	18					

**level of significance = 0.05
df 27*

The table shows that pre-test has a mean of 7.86 while post-test has 15.18. There is a significant difference to the means of the two tests which is 7.22. Post-test has higher mean value which showed that scores of the learners after the intervention increased.

Going further, the computed t value is 10.09 and the tabular value is 2.05. This indicates that the calculated t-value is greater than tabular t-value at a significant level of 0.05. Therefore, since the null hypothesis was rejected, game-based teaching strategy has a positive impact to learners after integrating it to the lesson.

Furthermore, based on Maxwell Heart (2020), game-based learning has emerged as an innovative learning technique that can increase student motivation, emotional involvement and enjoyment. Results show that students favored and were more engaged in the game-based lecture.

The findings of this study are similar also with the findings of the study of Diniyati (2014). In his findings, the use of game-based is recommended to the teachers as an alternative media to teach elementary school learners for improving learners' spelling skills. In other words, the use of game-based teaching strategy was effective in improving the spelling skills of the learners.

Impacts of Game-Based Teaching Strategy

The short survey that was afterwards conducted to the 28 learners composed of 6 choices.

Table 3. Impacts of Game-based Teaching Strategy in Spelling Development.

Impacts of Game-based Teaching Strategy in Spelling Development	Frequency	Percentage
1. I easily understand the subject.	21	75%
2. I am more interested in the subject.	18	64%
3. I feel more confident in class participation.	19	68%
4. I find difficulties coping up with the subject.	10	36%
5. I have less interest in the subject.	5	18%
6. I feel uncomfortable during the learning process.	10	36%
Average	75.17%	Highly Effective

The table above shows the frequency of each choice based on learner's experience during the learning process.

The results showed that the 21 out of 28 (75% of the population) learners easily understand the subject making it as the primary impact of the intervention. They were able to easily spell words since games activate the frontal part of the brain that is responsible for attentiveness causing efficient memorization (Kober, et.al., 2020). Moreover, 19 learners (68% of the population) answered that they felt more confident in class participation, followed 18 learners (64% of the population) who became more interested in the subject.

Overall, 22 learners (79% of the population) recommends the integration of game-based teaching strategy. Therefore, there are more learners who experience positive impact than negative ones. Thus, the game-based teaching strategy is highly effective.

V. Statement and Declarations

This research received no external finding. The author declare no conflict of interest.

VI. Conclusion

This study about effectiveness of game-based teaching strategy on spelling development of Grade 3 – Masayahin at Sevilla Elementary School showed significant difference in the statistical analysis conducted. After the intervention applied their level of spelling skills was improved. Furthermore, the game-based teaching strategy is highly effective in improving the spelling skills of learners.

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