# INTERACTIVE WORD GAMES: BRIDGE IN IMPROVING VOCABULARY SKILLS OF GRADE SEVEN STUDENTS 

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DOI: https://doi.org/10.56293/IJASR.2024.5715

## IJASR 2024 <br> VOLUME 7 <br> ISSUE 1 JANUARY - FEBRUARY

ISSN: 2581-7876
Abstract: This study aimed to enhance the vocabulary skills of grade 7 students by utilizing interactive word games focused on synonyms/antonyms, context clues, and connotations/denotations. The experiment involved 84 grade 7 students from Bukal Sur National High School during the 2022-2023 academic year. Pre-test and post-test measures were employed to evaluate the impact, revealing that students acknowledged the effectiveness of the games in improving their vocabulary skills. Games like "Grab the Word," "Mix and Match," "Pictionary," and "Word Hunt/Puzzles" received positive responses. Analysis of pre-test and post-test scores demonstrated significant improvements, particularly in synonyms/antonyms, with more students achieving higher ratings. In the context clues category, most students performed at a satisfactory level, showing improvement in all categories in post-test scores. There was an overall enhancement in connotations/denotations skills, with more students scoring "Very Satisfactory." Comparisons between pre-test and post-test scores of students exposed to different word games indicated a significant difference, affirming the positive impact on verbal interpretation skills. In conclusion, this study supports the efficacy of interactive word games in enhancing grade 7 students' vocabulary skills, emphasizing their value in active learning. While null hypotheses were rejected regarding specific word games, there was insufficient statistical evidence to deny a significant difference in post-test scores for respondents exposed to both Interactive Word Games.

Keywords: connotations, context clues, denotations, grab the word, interactive word games, mix and match, Pictionary, synonyms/antonyms, vocabulary skills, word hunt/puzzles

## INTRODUCTION

In today's educational landscape, effective communication skills are crucial for success. Junior high school students must master English comprehensively, but the Philippines faced an education crisis even before the pandemic. The 2018 PISA report showed Filipino students ranking lowest in reading comprehension among 79 countries from 2013 to 2019. (Ratziel San Juan, Philstar.com, 2019).

In response, the Department of Education issued memorandum no. 173 s .2019 to fortify the K-12 Basic Education Program, aiming to cultivate proficient readers through initiatives like the "Every Child A Reader Program (ECARP)." However, persistently low English achievement persisted in the 2019 National Achievement Test, linked to inadequate vocabulary skills.

Understanding written language depends on a wide vocabulary. In our changing world, possessing a strong vocabulary is crucial for academic and professional success. Recognizing this, educators explore engaging strategies like interactive word games to enhance vocabulary learning. These games offer immersive experiences, encouraging students to learn and retain new words.

In conclusion, this study highlights the importance of vocabulary in education and the potential of interactive word games to promote active learning and improve vocabulary skills.

## Background of the Study

Vocabulary instruction's critical role in addressing language learning challenges is evident, with issues like incorrect word usage and spelling, grammatical structure comprehension, and contextual meaning deduction identified (Afzal, 2019). The pandemic's impact on education, termed "unfinished learning," has exacerbated challenges, especially for historically disadvantaged students (Dorn et al., 2021). To counter these issues, educational institutions, notably teachers, are urged to reshape the learning process (Sá \& Serpa, 2020).

In the Philippines, the Informal Reading Inventory (PHILIRI) is employed to assess reading abilities, revealing a rise in frustration levels for reading comprehension at Bukal Sur National High School (Remo, 2022). Recent research emphasizes the strong correlation between vocabulary knowledge and reading comprehension (Haftcheshmeh et al., 2021). Recognizing vocabulary's pivotal role, the researcher proposes integrating games into classroom training for an enjoyable and comprehensible learning experience (Wasik and Hindman, 2018).

Interactive vocabulary games like Grab It, Mix and Match, Pictionary, and Word Hunt/Puzzles are suggested as valuable tools to enhance vocabulary skills, fostering motivation and communication abilities. The study, "Interactive Word Games: Bridge to Improve the Vocabulary Skills of Grade Seven Students," aims to explore the effectiveness of these games in developing vocabulary skills and retention during classroom interactions.

This study aimed to Develop a Digital Game-based Lesson in Physics for Grade 7 Learners at Bukal Sur National High School.

Specifically, it sought to answer the following questions:

1. What is the perception of the students' respondents in interactive word games in terms of;
1.1. Grab The Word
1.2. Mix and Match
1.3. Pictionary
1.4. Word Hunt/Puzzles?
2. What is the pre-test and post-test scores of the respondents exposed to Grab the Word and Mix and Match in terms of:
2.1. Synonym/Antonym
2.2. Context Clues?
2.3. Connotations/Denotations
3. What is the pre-test and post-test scores of the respondents exposed to Pictionary and Word Hunt/Puzzles in terms of:
3.1. Synonym/Antonym
3.2. Context Clues
3.3. Connotations/Denotations
4. Is there a significant difference between the pre-test and post-test scores of the respondents exposed to Grab the Word and Mix and Match?
5. Is there a significant difference between the pre-test and post-test scores of the respondents exposed to Pictionary and Word Hunt/Puzzles?
6. Is there a significant difference between the post-test scores of the respondents exposed to both Interactive Word Games?

## METHODOLOGY

## Research Design

This study, utilizing a descriptive-experimental design, examined the impact of interactive word games on the vocabulary skills of 84 Grade 7 students. Two comparable experimental groups, Bonifacio and Jacinto, underwent
pre-assessment and post-assessment in Synonyms and Antonyms, Context Clues, and Connotation and Denotation. Bonifacio experienced Pictionary and Word Hunt/Puzzles, while Jacinto engaged in Grab the Word and Mix and Match. The study employed both descriptive and experimental research methods, assessing student perceptions and effectiveness in enhancing vocabulary skills. Findings from the descriptive research offered detailed insights into student opinions on interactive word games, while the experimental research delved into their effectiveness, aiding educators in decision-making. This combined approach, following suggestions by Smith et al. (2018) and Montgomery (2017), facilitated systematic data collection and analysis, providing accurate information for educational decisions regarding the relationship between independent and dependent variables.

## Respondents of the study

The respondents of this study are limited to 42 heterogenous students from Grade 7-Bonifacio, and 42 students from Grade 7-Jacinto, with a total of 84 students at Bukal Sur National High School School Year 2022-2023.

## Population and Sampling

Conducted at Bukal Sur National High School in Buenavista West Candelaria, Quezon, the study involved 84 Grade 7 students from two sections supervised by the researcher. Employing cluster sampling aligned with the researcher's system for selecting respondents enrolled in the 2022-2023 school year, the study assessed the impact of interactive games on vocabulary skills. Administering identical pre-test and post-test questions, the research adhered to Lohr's (2019) perspective, ensuring representative samples by selecting internally similar yet externally diverse clusters for more generalizable findings.

## Research Instrument

In this study, a researcher-made questionnaire served as the primary research instrument, encompassing interactive word games and assessing vocabulary skills such as synonyms/antonyms, context clues, and connotation/denotation. The instrument underwent rigorous internal and external validation, incorporating feedback from the research adviser, subject specialist, and statistician. Prior to validation, these stakeholders provided comments, suggestions, and approval. A reliability and validity test preceded the pilot phase and administration to respondents. Cronbach Alpha assessed the survey questionnaire's reliability for the perception of respondents regarding interactive word games, revealing good reliability for Grab the Word (.727), Mix and Match (.786), Pictionary (.626), and Word Hunt/Puzzles (.746). Kuder Richardson tested the validity and reliability of the pre-test and post-test, yielding results for Synonyms and Antonyms (.62-.62), Context Clues (.75-,74), and Connotations and Denotations (.78-.74). The three-part questionnaire included sections on Vocabulary Skills, Interactive Word Games, and a student feedback survey. Using a Likert Scale ( 4 as Strongly Agree, 3 as Agree, 2 as Disagree, and 1 as Strongly Disagree), the instrument evaluated the significant difference between post-test scores of respondents exposed to both Interactive Word Games. Additionally, respondents used the research instrument as both a pre-test and post-test.

## Research Procedure

Before conducting the study, the researcher followed the necessary protocols and obtained permission from relevant authorities. Approval was sought from the school principal at Bukal Sur National High School in Candelaria, Quezon, for conducting the study with grade 7 students. Validation of the research instrument involved external and internal validators, ensuring data quality through reliability and validity tests. Moving to the practical phase, a pilot test with non-experimental grade 7 sections validated four interactive word games. Lessons from the third quarter curriculum were integrated, and two distinct games were implemented for each group. Pre and postassessment tests measured initial and improved vocabulary skills, respectively, followed by statistical analysis. Students failing the post-test provided feedback on interactive word games to understand learning difficulties. The research aimed to offer insights into the effectiveness of these games in enhancing grade 7 students' vocabulary skills, ensuring a thorough analysis of their impact.

## Statistical Treatment

This study employed quantitative analysis, utilizing a 4-point Likert scale questionnaire to gauge students' perceptions of interactive word games (4-Strongly Agree, 3-Agree, 2-Disagree, 1-Strongly Disagree). Descriptive statistics, including frequency count, percentage, mean, and standard deviation, were employed to assess pre-test and post-test scores. To examine the significance of differences between pre-test and post-test scores, a paired t-test was conducted to evaluate the impact of exposure to interactive word games on respondents.

## RESULTS AND DISCUSSION

Table 1. Perception of Students in Interactive Word Games as to Grab The Word
Indicators Mean SD Verbal Interpretation

1. Encourages active participation and interaction for better retention of new vocabulary words.
$3.55 \quad 0.55 \quad$ Strongly Agree
2. Helps to recognize words quickly by repeatedly encountering words in the context of the game.
$3.43 \quad 0.70 \quad$ Agree
3. Enjoys playing the game rather than just listening and doing vocabulary pen and paper activities.
$3.24 \quad 0.85 \quad$ Agree
4. Keeps the reflexes active to quickly grab the object or word to get the chance to answer the vocabulary and earn points.
3.45 0.63 Agree
5. Enables to collaborate with classmates and promotes group cooperation among students
3.48 0.59 Agree

| Overall | 3.43 | 0.40 | Agree |
| :--- | :--- | :--- | :--- |

Legend: 3.50-4.00 Strongly Agree
2.50-3.49 Agree
1.50-2.49 Disagree
1.00-1.49 Strongly Disagree

Table 1 displays students' perceptions of the interactive word game "Grab the Word." The mean overall perception score of 3.43 falls into the "Agree" category, indicating a positive view for vocabulary development. The highest mean score (3.55) indicates strong agreement that the game promotes active participation and interaction, enhancing vocabulary retention - a finding supported by Khezrlou et al. (2019).

Other indicators received favorable mean scores in the "Agree" category. Students believed the game aided quick word recognition, offered more enjoyment than traditional activities, and fostered collaboration. Overall, results suggest "Grab the Word" is a beneficial tool for vocabulary development.

Le, H. T. (2021) studied the game's effects on English as a foreign language learner, finding improved vocabulary knowledge and retention. Similarly, Kim, J., \& Yoon, H. (2018) demonstrated the game's positive impact on language achievement and motivation. Li, H. (2019) also highlighted the game's potential value in enhancing vocabulary learning in language education.

Table 2. Perception of Students in Interactive Word Games as to Mix and Match

| Indicators | Mean | SDVerbal <br> Interpretation |  |
| :--- | :---: | :---: | :---: |
| 1. Helps in learning new words and their meanings, <br> which makes it easier to talk with others and <br> understand what they read. | 3.50 | 0.59 | Strongly Agree | | 2. Boosts the ability to communicate with co-learners. |
| :--- |
| 3. Helps recall new terms and their meanings <br> accurately. |
| 4. Encourages to think critically in finding the word <br> counterparts. |
| 5. Allows moving around the classroom, to develop <br> Social skills. |
| Overall |

Legend: 3.50-4.00 Strongly Agree
2.50-3.49 Agree
1.50-2.49 Disagree
1.00-1.49 Strongly Disagree

Table 2 exhibits students' perception of Mix and Match in Interactive Word Games to enhance their learning experience. With an overall mean score of 3.49 (Agree), students generally find Mix and Match positively impactful on language learning. Breakdowns of specific indicators show strong agreement that the activity aids in learning new words, facilitates communication and encourages critical thinking. Students also recognize its role in developing social skills and improving peer communication. This aligns with the findings of Shabaneh and Farrah (2019), who highlight the positive impact of group activities on students' participation and communication skills. In conclusion, Mix and Match is perceived favorably by students, contributing to enhanced vocabulary skills, improved communication, and critical thinking, while fostering social development and teamwork.

Table 3. Perception of Students in Interactive Word Games as to Pictionary

| Indicators | Mean | SD | Verbal Interpretation |
| :--- | :---: | :---: | :---: |
| 1. Tests vocabulary skills more enjoyable and less <br> stressful. | 3.52 | 0.55 | Strongly Agree |
| 2. Develops critical thinking through picture-word <br> association. | 3.48 | 0.59 | Agree |


| 3. Helps to know how to use new vocabulary. | 3.31 | 0.68 | Agree |
| :--- | :--- | :--- | :--- |
| 4. Enriches vocabulary learning and makes it more entertaining. | 3.40 | 0.59 | Agree |
| 5. Responds to vocabulary words quickly. | 3.38 | 0.62 | Agree |
| Overall | 3.42 | 0.38 | Agree |

Legend: 3.50-4.00 Strongly Agree
2.50-3.49 Agree
1.50-2.49 Disagree
1.00-1.49 Strongly Disagree

Table 3 illustrates positive student perceptions of Pictionary for enhancing vocabulary skills and critical thinking, with an overall mean score of 3.42 , indicating agreement. Students find interactive word games like Pictionary beneficial for vocabulary skills, critical thinking, new vocabulary usage, vocabulary learning enrichment, and quick response to vocabulary words. Additionally, students strongly agree that Pictionary makes testing vocabulary skills more enjoyable and less stressful.

These findings align with Lee, K. R.'s (2019) research, which showed that Pictionary positively influenced vocabulary learning by enhancing skills and encouraging critical thinking. Dong and Yuan (2020) found that Pictionary enhances motivation and engagement in language learning, while Kim et al. (2018) demonstrated its positive impact on vocabulary learning, creativity, and willingness to communicate. Pictionary, as per the study, enriches vocabulary skills through visual and kinesthetic learning experiences and promotes critical thinking by interpreting and representing words, encouraging new vocabulary usage, and facilitating quick responses to vocabulary words.

Table 4. Perception of Students in Interactive Word Games as to Word Hunt/Puzzles

| Indicators | Mean | SD | Verbal Interpretation |
| :--- | :--- | :--- | :--- |
| 1. Makes communication with others and comprehension of <br> written material more accessible | 3.50 | 0.63 | Strongly Agree |
| 2. Creates a feeling of confidence in spelling and helps <br> to make fewer mistakes when spelling words. | 3.45 | 0.55 | Agree |
| 3. Makes learning more interesting and fun, which helps <br> to stay excited and focused while learning. | 3.43 | 0.67 | Agree |
| 4. Develops communication and teamwork skills while <br> solving puzzles | 3.38 | 0.66 | Agree |
| 5. Exercises the mind while providing a feeling of <br> achievement after completing the word search. | 3.48 | 0.51 | Agree |
| Overall | 3.45 | 0.36 | Agree |

Legend: 3.50-4.00 Strongly Agree
2.50-3.49 Agree
1.50-2.49 Disagree
1.00-1.49 Strongly Disagree

Table 4 displays outcomes on students' perception of Word Hunt/Puzzles in Interactive Word Games. With an overall mean of 3.45 , indicating agreement, respondents value engagement, cognitive stimulation, vocabulary acquisition, critical thinking, time management, and a sense of achievement. Students strongly agree that Word Hunt/Puzzles aid in learning new words, enhancing communication and comprehension skills, improving spelling accuracy, maintaining excitement, and fostering collaborative problem-solving. These perceptions align with Ni'matwati's (2021) findings on word search games. Word Hunt/Puzzles effectively engage students and enhance vocabulary and spelling skills, suggesting potential for teamwork and communication activities. Recent studies by Lee et al. (2020) emphasize puzzle-based learning's effectiveness in improving critical thinking, problem-solving, vocabulary, and spelling skills. Further studies by Hasanpour and Ghahari (2017), Kostolányová et al. (2020), and Gao and Lehman (2021) support word games' positive impact on vocabulary, spelling, and cognitive skills.

Additionally, Tubaña et al. (2020) and Manda (2016) found crossword puzzles and word puzzles beneficial in enhancing vocabulary skills among Filipino students.

Table 5. Summary of Perception of Students in Interactive Word Games

| Interactive Word Game | Mean | SD | Verbal Interpretation |
| :--- | :---: | :---: | :--- |
| Grab the Word | 3.43 | 0.40 | Agree |
| Mix and Match | 3.49 | 0.41 | Agree |
| Pictionary | 3.42 | 0.38 | Agree |
| Word Hunt/Puzzles | 3.45 | 0.36 | Agree |
| Total | $\mathbf{3 . 4 4}$ | $\mathbf{0 . 3 9}$ | Agree |

Legend: 3.50-4.00 Strongly Agree
2.50-3.49 Agree
1.50-2.49 Disagree
1.00-1.49 Strongly Disagree

Table 5 summarizes student perceptions of interactive word games, revealing an overall positive attitude (mean score: 3.44), falling in the "Agree" range. This suggests their usefulness in enhancing vocabulary skills. "Mix and Match" received the highest score (3.49), while "Pictionary" scored the lowest (3.42), though differences are minor. Educators can leverage these findings to enhance engagement and learning.

Research by Karsenti and Collin (2021) supports gamification's positive impact on motivation and achievement. Interactive word games not only foster collaborative learning but also improve communication skills (Zhang et al., 2021). Careful alignment with learning objectives is crucial for maximizing effectiveness (Papastergiou, 2021). In conclusion, students' positive perception underscores the value of using interactive word games as effective teaching tools.

Table 6. Pretest and Posttest Scores of the Respondents in Synonyms/Antonyms Exposed to Grab the Word and Mix and Match

|  | Pretest | Posttest |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Scores | f | $\%$ | f | $\%$ |  |
| $9-10$ | - | - | 2 | 4.8 | Verbal Interpretation |
| $7-8$ | 2 | 4.8 | 20 | 47.6 | Outstanding |
| $5-6$ | 29 | 21.4 | 19 | 45.2 | Very Satisfactory |
| $3-4$ | 2 | 4.8 | 1 | 2.4 | Fatisfactory |
| $0-2$ | $\mathbf{4 2}$ | $\mathbf{1 0 0 . 0}$ | $\mathbf{4 2}$ | $\mathbf{1 0 0 . 0}$ |  |
| Total |  |  |  |  |  |
| Legend: |  |  |  |  |  |
| 9-10: Outstanding Satisfactory | 7-8: Very Satisfactory | 5-6: Satisfactory | 3-4: Fairly Satisfactory | 0-2 Did Not Meet Expectations |  |

Table 6 features the pre-test and post-test scores of respondents in synonyms/antonyms who were exposed to Grab the Word and Mix and Match. During the pre-test in synonyms/antonyms, the greatest number of students or 69.0 percent is in Fairly Satisfactory level, while none of the respondents reached Outstanding level. This means that they have a moderate level of proficiency in identifying synonyms and antonyms. They exhibit a basic understanding of word meanings and can sometimes determine words with similar and opposite meanings. However, their performance is often inconsistent, and they may struggle with more advanced or nuanced synonyms and antonyms. After post-test, the majority of the students or 47.6 percent are at the Very Satisfactory level in terms of identifying synonyms and antonyms while 2.4 percent fall in the Fairly Satisfactory level. This conveys that the students improve their vocabulary skills as shown by the higher percentage of learners under Very Satisfactory level
compared to the pre-test result. This implies that they are able to understand word meanings and can successfully determine words with similar and opposite meanings.

The outcome reflected that the students were able to meet a higher degree of competence in their vocabulary skills in terms of Synonyms and Antonyms using Grab the Word and Mix and Match.

Table 7. Pretest and Posttest Scores of the Respondents in Context Clues Exposed to Grab the Word and Mix and Match

|  | Pretest |  |  |  |  |  | Posttest |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :---: | :---: | :---: | :---: | :---: |
| Scores | f | $\%$ | f | $\%$ | VI |  |  |  |  |  |
| $9-10$ | - | - | 10 | 23.8 | Outstanding |  |  |  |  |  |
| $7-8$ | 8 | 19.0 | 16 | 38.1 | Very Satisfactory |  |  |  |  |  |
| $5-6$ | 19 | 45.2 | 15 | 35.7 | Satisfactory |  |  |  |  |  |
| $3-4$ | 13 | 31.0 | 1 | 2.4 | Fairly Satisfactory |  |  |  |  |  |
| $0-2$ | 2 | 4.8 | - | - | Did Not Meet Expectations |  |  |  |  |  |
| Total | $\mathbf{4 2}$ | $\mathbf{1 0 0 . 0}$ | $\mathbf{4 2}$ | $\mathbf{1 0 0 . 0}$ |  |  |  |  |  |  |
| Legend: |  |  |  |  |  |  |  |  |  |  |
| 9-10: Outstanding | 7-8: Very Satisfactory | 5-6: Satisfactory | 3-4: Fairly Satisfactory | 0-2 Did Not Meet Expectations |  |  |  |  |  |  |

Table 7 shows pretest and posttest scores for respondents exposed to Grab the Word and Mix and Match in the context clues category. Initially, $45 \%$ achieved a Satisfactory level, indicating moderate proficiency in identifying context clues. Post-test results indicated a majority ( $38.1 \%$ ) at Very Satisfactory, demonstrating accurate analysis of contextual information. Additionally, $23.8 \%$ achieved an Outstanding level, showcasing exceptional proficiency in understanding and using context clues. The outcomes suggest Grab the Word and Mix and Match positively impact language skills, aligning with findings from a study on Word Mapping's effectiveness in vocabulary learning (Sayuti, Zainuddin et al., 2020). Similar benefits were noted by Puchta and Williams (2015) for vocabulary games and by Liao et al. (2017) for a matching game using context clues, emphasizing the engaging and enjoyable aspects of gamebased learning.

Table 8. Pretest and Posttest Scores of the Respondents in Connotations/Denotations Exposed to Grab the Word and Mix and Match

|  | Pretest |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Scores | f | $\%$ | f |  |  |
| $9-10$ | 1 | 2.4 | 7 | 16.7 | VI |
| $7-8$ | 3 | 7.1 | 12 | 28.6 |  |
| $5-6$ | 16 | 38.1 | 17 | 40.5 | Very Satisfactory |
| $3-4$ | 18 | 42.9 | 6 | 14.3 | Satisfactory |
| $0-2$ | 4 | 9.5 | - | - | Fairly Satisfactory |
| Total | $\mathbf{4 2}$ | $\mathbf{1 0 0 . 0}$ | $\mathbf{4 2}$ | $\mathbf{1 0 0 . 0}$ |  |
| Legend: |  |  |  |  |  |
| 9-10: Outstanding | 7-8: Very Satisfactory | 5-6: Satisfactory | 3-4: Fairly Satisfactory | 0-2 Did Not Meet Expectations |  |

Table 8 displays pretest and posttest scores for participants in Connotations/Denotations exposed to Grab the Word and Mix and Match. Initially, $42.9 \%$ were at the Fairly Satisfactory level, indicating a basic understanding of denotations but challenges with connotations. In the post-test, $40.5 \%$ achieved the Satisfactory level, understanding denotations but with some limitations in discerning subtle connotations. Additionally, 16.7\% reached the Outstanding level, indicating a strong command of language and comprehension of both denotations and connotations. Overall, the results suggest improvement in connotations/denotations skills after exposure to Grab the Word and Mix and Match, highlighting the effectiveness of these activities in enhancing language skills. Previous studies by Yuliani and Sari (2020) and Alkhawaldeh and Obeidat (2019) also support the use of matching games in
improving vocabulary knowledge and retention. Furthermore, research by Han and Kim (2021) emphasizes the role of explicit instruction in connotation and denotation for enhancing EFL learners' vocabulary and reading comprehension skills.

Table 9. Pretest and Posttest Scores of the Respondents in Synonyms/Antonyms Exposed to Pictionary and Word Hunt/Puzzles

|  | Pretest |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Scores | f | $\%$ | f |  |  |
| $9-10$ | - | - | 12 | 28.6 | VI |
| $7-8$ | 1 | 2.4 | 18 | 42.9 | Outstanding |
| $5-6$ | 4 | 9.5 | 5 | 11.9 | Very Satisfactory |
| $3-4$ | 25 | 59.5 | 7 | 16.7 | Satisfactory |
| $0-2$ | 12 | 28.6 | - | - | Fairly Satisfactory |
| Total | $\mathbf{4 2}$ | $\mathbf{1 0 0 . 0}$ | $\mathbf{4 2}$ | $\mathbf{1 0 0 . 0}$ |  |
| Legend: |  |  |  |  | Did Not Meet Expectations |
| 9-10: Outstanding | 7-8: Very Satisfactory | 5-6: Satisfactory | 3-4: Fairly Satisfactory | 0-2 Did Not Meet Expectations |  |

Table 9 outlines the pre-test and post-test scores for respondents in synonyms/antonyms exposed to Pictionary and Word Hunt/Puzzles. In the pre-test, $59.5 \%$ achieved "Fairly Satisfactory," indicating challenges in recognizing word relationships. Conversely, $2.4 \%$ reached "Very Satisfactory." Post-test results show notable improvement, with $42.9 \%$ at "Very Satisfactory" and $28.6 \%$ at "Outstanding." The intervention positively impacted synonyms/antonyms skills, reflected in increased post-test scores and higher percentages in the upper rating categories. This study suggests Pictionary and Word Hunt/Puzzles are effective tools for teaching synonyms/antonyms, aligning with Belina and Fithriyah's (2021) findings. Alomari and Al-Hawamdeh (2020) and Kachru (2021) similarly support the efficacy of games like Pictionary in enhancing language skills.

Table 10. Pretest and Posttest Scores of the Respondents in Context Clues Exposed to Pictionary and Word Hunt/Puzzles

|  | Pretest |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Scores | f | $\%$ | F | Posttest |  |
| $9-10$ | - | - | 9 | 21.4 | VI |
| $7-8$ | 5 | 11.9 | 16 | 38.1 | Outstanding |
| $5-6$ | 7 | 16.7 | 9 | 21.4 | Satisfactory Satisfactory |
| $3-4$ | 19 | 45.2 | 7 | 16.7 | Fairly Satisfactory |
| $0-2$ | 11 | 26.2 | 1 | 2.4 | Did Not Meet Expectation |
| Total | $\mathbf{4 2}$ | $\mathbf{1 0 0 . 0}$ | $\mathbf{4 2}$ | $\mathbf{1 0 0 . 0}$ |  |
| Legend: |  |  |  |  |  |
| 9-10: Outstanding | 7-8: Very Satisfactory | 5-6: Satisfactory | 3-4: Fairly Satisfactory | 0-2 Did Not Meet Expectations |  |

Table 10 presents pre-test and post-test scores for respondents exposed to two techniques, Pictionary and Word Hunt/Puzzles, in the context of understanding context clues. Initially, $45.2 \%$ achieved a "Fairly Satisfactory" rating, indicating inconsistent understanding. 26.2\% "Did Not Meet Expectations," struggling to use context effectively. Only 11.9\% were "Very Satisfactory," effectively analyzing contextual information. Post-intervention, 38.1\% reached "Very Satisfactory," $21.4 \%$ achieved "Outstanding," demonstrating a thorough understanding of context clues. "Fairly Satisfactory" dropped to $16.7 \%$, and "Did Not Meet Expectations" decreased to $2.4 \%$. Both techniques proved useful in enhancing understanding, suggesting implications for teaching context clues. Similar studies by Khoiriyah and Sugiarti (2020) supported these findings, emphasizing the effectiveness of Pictionary and Word Hunt/Puzzles in improving learning outcomes. However, Crossley et al. (2016) noted limitations in improving context clues understanding, attributing it to insufficient practice in reading comprehension tasks.

Table 11. Pretest and Posttest Scores of the Respondents in Connotations/Denotations Exposed to Pictionary and Word Hunt/Puzzles

|  | Pretest |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Scores | F | $\%$ | F | $\%$ |  |
| $9-10$ | - | - | 10 | 23.8 | Verbal Interpretation |
| $7-8$ | 4 | 9.5 | 14 | 33.3 | Outstanding |
| $5-6$ | 10 | 23.8 | 12 | 28.6 | Very Satisfactory |
| $3-4$ | 18 | 42.9 | 5 | 11.9 | Satisfactory |
| $0-2$ | 10 | 23.8 | 1 | 2.4 | Fairly Satisfactory |
| Total | $\mathbf{4 2}$ | $\mathbf{1 0 0 . 0}$ | $\mathbf{4 2}$ | $\mathbf{1 0 0 . 0}$ |  |
| Legend: |  |  |  |  |  |
| 9-10: Outstanding | 7-8: Very | Satisfactory | 5-6: Satisfactory | 3-4: Fairly Satisfactory | 0-2 Did Not Meet Expectations |

The table illustrates pretest and post-test scores for respondents in connotations/denotations using two teaching methods - Pictionary and Word Hunt/Puzzles. Pretest results show $42.9 \%$ achieved a 3-4 score, indicating satisfactory denotation understanding but struggles with connotations. Post-test outcomes exhibit improvement, with $23.8 \%$ achieving an Outstanding score ( $9-10$ ), indicating a strong grasp of both denotations and connotations. Additionally, $33.3 \%$ scored Very Satisfactory (7-8), demonstrating enhanced understanding of literal and implied meanings. Overall, the results signify a substantial improvement in connotations/denotations understanding after exposure to Pictionary and Word Hunt/Puzzles. This suggests the effectiveness of these methods in enhancing students' language skills, aligning with similar findings in studies by Liu, Li, and Wu (2021), Wei and Chen (2021), and Zhang and Zhang (2021). Teachers can incorporate these methods to make learning more engaging and interactive.

Table 12. Test of Difference Between the Pretest and Posttest Scores of the Respondents Exposed to Grab the Word and Mix and Match

|  | Pretest |  | Posttest |  | T | df | Sig. (2-tailed) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mean | SD | Mean | SD |  |  |  |
| Synonyms/Antonyms | 3.98 | 1.24 | 6.74 | 1.29 | 13.736 | 41 | . 000 |
| Context Clues | 5.02 | 1.42 | 7.17 | 1.56 | 10.397 | 41 | . 000 |
| Connotations/Denotations | 4.40 | 1.73 | 6.43 | 1.78 | 9.699 | 41 | . 000 |

Legend: significant at .05 level (2-tailed)
Table 12 data indicates a significant improvement in pre-test and post-test scores for respondents exposed to Grab the Word and Mix and Match. Mean scores for Synonyms/Antonyms, Context Clues, and Connotations/Denotations all increased, with statistically significant differences ( $\mathrm{p}<0.05$ ). For Synonyms/Antonyms, mean scores rose from 3.98 to 6.74 , Context Clues from 5.02 to 7.17 , and Connotations/Denotations from 4.40 to 6.43. The t-test results confirm the significance in all three areas. These findings suggest the effectiveness of Grab the Word and Mix and Match in enhancing students' vocabulary understanding, particularly in synonyms/antonyms, context clues, and connotations/denotations. These methods can be valuable for teachers aiming to improve vocabulary acquisition and retention. A study by Wang, et. al. (2021) also supports the effectiveness of game-based vocabulary learning in enhancing vocabulary acquisition, retention, and motivation.

Table 13. Test of Difference Between the Pretest and Posttest Scores of the Respondents Exposed to Pictionary and Word Hunt/Puzzles

|  | Pretest |  |  |  | Posttest | t | df | Sig. <br> tailed) |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | Mean | SD | Mean | SD |  |  |  |  |
| Synonyms/Antonyms | 3.24 | 1.28 | 7.05 | 2.09 | 10.599 | 41 | .000 |  |
| Context Clues | 3.64 | 1.94 | 6.62 | 2.02 | 8.800 | 41 | .000 |  |
| Connotations/Denotations | 3.81 | 1.81 | 6.81 | 2.10 | 9.438 | 41 | .000 |  |

Legend: significant at . 05 level (2-tailed)
Table 13 indicates a significant improvement in pre-test and post-test scores for respondents exposed to Pictionary and Word Hunt/Puzzles in Synonyms/Antonyms, Context Clues, and Connotations/Denotations. The t-tests revealed statistically significant improvements at the 0.05 level ( p -values $=0.000$ ) across all three areas. Specifically, the mean scores increased significantly in each domain: from 3.24 to 7.05 in Synonyms/Antonyms, 3.64 to 6.62 in Context Clues, and 3.81 to 6.81 in Connotations/Denotations. These findings suggest that the respondents, initially weak in these language aspects, notably enhanced their skills after engaging in Pictionary and Word Hunt/Puzzles activities. The results indicate the effectiveness of these teaching methods, with implications for language teaching and learning. The observed improvements are unlikely to be by chance and underscore the benefits of incorporating activities like Pictionary and Word Hunt/Puzzles in language education, aligning with similar findings in recent studies (Liu et al., 2021; Tavakoli \& Eslami, 2021; Matsuda, 2020).

Table 14. Test of Difference Between the Posttest Scores of the Respondents Exposed to Interactive Games

|  | Grab <br> Word/Mix <br> Match |  | Pictionary Word Hunt/Puzzles |  | t | df | Sig. tailed) | (2- |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mean | SD | Mean | SD |  |  |  |  |
| Synonyms/Antonyms | 6.74 | 1.29 | 7.05 | 2.09 | -. 816 | 82 | 417 |  |
| Context Clues | 7.17 | 1.56 | 6.62 | 2.02 | 1.389 | 82 | . 169 |  |
| Connotations/Denotations | 6.43 | 1.78 | 6.81 | 2.10 | -. 897 | 82 | . 372 |  |

Legend: Not significant at .05 level (2-tailed)
Table 14 indicates no significant difference in post-test scores for respondents exposed to Interactive Word Games in Synonyms/Antonyms ( $p=.417$ ), Context Clues ( $p=.169$ ), and Connotations/Denotations ( $p=.372$ ). These $p$ values demonstrate the lack of statistically significant variation in the ability to recognize synonyms/antonyms, understand context clues, and distinguish connotations/denotations based on the type of game. Specifically, pvalues for Synonyms/Antonyms (.417), Context Clues (.169), and Connotations/Denotations (.372) signify no significant differences in post-test scores among groups exposed to different games. This implies that respondents' abilities in these aspects were consistent across various interactive word games. Several studies explore word game effectiveness in vocabulary improvement, with findings suggesting varied efficacy based on game type and learner proficiency levels (Nguyen et al., 2021; Barbour et al., 2021; Smith and Dorst, 2020).

## CONCLUSION AND RECOMMENDATION

The hypotheses stating no significant differences in pre-test and post-test scores for "Grab the Word" and "Mix and Match," as well as "Pictionary" and "Word Hunt/Puzzles," in various vocabulary skills were rejected. Furthermore, there is insufficient statistical evidence to support the hypothesis that there is no significant difference in post-test scores for respondents exposed to both Interactive Word Games.

Based on the results and conclusions posted in the study, the following recommendations are hereby formulated:

1. Teachers should incorporate interactive word games like Pictionary, Word Hunt, and Puzzles in lesson plans to enhance student engagement, considering diverse learning styles.
2. School Administration should allocate resources for relevant interactive games, providing teacher training on integration into teaching strategies.
3. School Heads are encouraged to foster a culture of play-based learning, supplementing teaching methods with interactive word games to boost student interest.
4. Students should practice using interactive word games to enhance verbal interpretation skills and cultivate a habit of engaging in fun, educational games.
5. Future Researchers are urged to conduct further studies on the effectiveness of interactive word games, exploring innovative additions to the learning process.

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