
Multisensory Instruction in English Vocabulary Acquisition among 3rd Graders at a Public Institution

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ABSTRACT

Elementary and high school students face difficulties in their vocabulary acquisition, in terms of form, meaning, and use, which do not allow them to communicate effectively in the target language. Regarding this background, the present research study aims to investigate the integration of multisensory instruction in English vocabulary acquisition among 3rd graders. Employing an action research design, this study utilized a mixed-method approach, with quantitative data collected through pre- and post-test instruments to assess students' vocabulary knowledge. Meanwhile, qualitative data were gathered through reflective journals and structured interviews, indicating the students' perceptions of the multisensory instruction. The main results revealed that students got 59,4% in the pre-test and in the post-test 80,10% which shows a notable improvement of 2,07 points. The findings conclude that multisensory instruction works as an effective strategy for enhancing vocabulary acquisition and can positively impact students' learning experiences.

Keywords: *senses, English learning, multisensory instruction, vocabulary*

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Instrucción multisensorial en la adquisición de vocabulario en inglés entre estudiantes de tercer grado en una institución pública

RESUMEN

Los estudiantes de primaria y secundaria enfrentan dificultades en la adquisición de vocabulario, en términos de forma, significado y uso, que no les permiten comunicarse de manera efectiva en el idioma deseado. Con base en estos antecedentes, el presente estudio de investigación tiene como objetivo integrar la instrucción multisensorial en la adquisición de vocabulario en inglés entre estudiantes de 3er grado. La presente investigación-acción utilizó un enfoque de método mixto, donde los datos cuantitativos se recopilaban a través de instrumentos de pre-prueba y post-prueba para medir el conocimiento de los estudiantes en vocabulario. Mientras tanto, los datos cualitativos se recopilaban a través de diarios reflexivos y entrevistas estructuradas que indicaban las percepciones de los estudiantes sobre la instrucción multisensorial. Los principales resultados revelaron que en la prueba previa los estudiantes obtuvieron 59,4% y en la prueba posterior 80,10%, lo que muestra una mejora de 2,07 puntos. Los hallazgos concluyen que la instrucción multisensorial es una estrategia eficaz para mejorar la adquisición de vocabulario y puede impactar positivamente las experiencias de aprendizaje de los estudiantes.

Palabras clave: sentidos, aprendizaje del inglés, instrucción multisensorial, vocabulario

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INTRODUCTION

Vocabulary is one of the components of English language learning which plays an important role because it is necessary to have a certain knowledge to speak English and communicate worldwide. According to Santi et al. (2021), vocabulary is a key aspect that helps learners develop receptive and productive foreign language skills. Based on the Common European Framework Reference (CEFR), the exit profile of elementary English students is A1 level which means that they can understand and use everyday expressions that are used frequently to satisfy immediate needs. Moreover, knowing vocabulary assures that learners can use the words they already know to build word recognition and hold ideas and thoughts in short-term memory as meaning is constructed (MinEduc, 2016). Thus, the acquisition of English vocabulary is an important aspect of language learning and proficiency since mastering a foreign language allows instructors and learners to communicate assertively and clearly.

Unfortunately, the researcher's workplace experiences in the last school year demonstrated that this objective had not been successfully accomplished among 3rd graders. The current students' sample faces difficulties in their vocabulary acquisition, in terms of form, meaning, and use, which do not allow them to communicate effectively in the target language. Research studies revealed various problems that students face in vocabulary learning, such as difficulties in pronouncing words, the different grammatical forms of the word, choosing the appropriate meaning of words, and confusion about the use of words based on context (Surmanov & Azimova, 2020). Additionally, Villacrés and Solis (2023), mention that students are struggling with the English vocabulary because they tend to write the words as they sound, just as it occurs in their native language (Spanish), reason why students must learn to distinguish sounds and letters, understand meanings, remember information, and finally consolidate them.

Moreover, some researchers have found some deficiencies in their studies showing elementary students and even students from high school struggling to acquire English vocabulary in the classroom through multisensory instruction because of learners from various linguistic and cultural backgrounds, as well as learners with diverse learning styles and abilities (Rosyada-AS and Apoko, 2023). Similarly, multiple researchers such as Algrni (2020), Bahari and Dost (2023), and Lawrence (2021), revealed various problems that students faced in vocabulary learning by using their senses, such as difficulties in pronouncing words, the different grammatical forms of the word, choosing the appropriate meaning of words, and confusion about the use of words based on context.

In this regard, by addressing these deficiencies, researchers can gain a deeper understanding of the effectiveness of multisensory instruction for a wider range of English language learners. The aforementioned issues have motivated the researcher to conduct the present study, which aims to integrate multisensory instruction as a solution to English vocabulary acquisition. As it is well known, multisensory instruction allows young learners to learn a second language by having real contact with English environments. Itagi and D'Mello (2019) support this idea by arguing that “Human senses are natural contributions which transform the information to the brain for further processing to understand what is being presented to an individual through sight, hearing, touch, smell, taste”. Supporting the previous statement, Ferreira and Vasconcelos (2020, p. 1) affirm that “when students invoke more than one sense to create mental representations of objects, concepts, or phenomena, they tend to interact with them more intensely and, thus, retain what they learn for longer periods”. Therefore, as students are exposed to sensory exercises, they boost the retention and engagement of the learned material.

Similarly, Syahputri (2019) claims that multisensory instruction occurs when learners fulfill the

teachers' assignments by developing their senses to learn, memorize, and retain the different contents. Teachers who incorporate activities that integrate human senses (sight, taste, touch, hearing, and smell) make their students engage in new experiences, by understanding and remembering new topics easily and effectively.

To sum up, the multisensory approach has previously presented positive results in developing students' English vocabulary acquisition as demonstrated by Jang and Chang (2023), Pellerin and Lavoie (2019), and López et al. (2019), who have determined that students are engaged in acquiring English vocabulary through multisensory instruction in EFL classes.

MATERIALS AND METHODS

The present research was conducted in a public institution during the 2024-2025 school year. This place is located in an urban area in Lago Agrio-Ecuador, where students from middle socioeconomic conditions attend it. Moreover, the intervention plan was applied for eight weeks to collect data.

The participants of this study were thirty-five students from the third grade of Basic General Education, eighteen male and seventeen female students. The sample was chosen by convenience since the researcher was teaching English to them, and it was not difficult to identify the main students' issues in acquiring a foreign language. This type of sampling was the most appropriate due to the researcher's existing access to the target population. This facilitated the data collection, particularly in identifying students' vocabulary acquisition challenges through direct observation and initial assessments. However, convenience sampling introduced some limitations, such as the researcher's dual role as teacher and investigator could introduce bias in data collection and interpretation, despite efforts to maintain objectivity. The average age of the selected group was 7-8 years old, and they had an A1-English level of proficiency according to the Common European Framework

Reference and the Ecuadorian Ministry of Education, who struggled to acquire English vocabulary. Reflecting the age of the target group, the representatives signed a legal consent form, which was reviewed by the thesis advisor and approved by the high school principal to allow the researcher to conduct the investigation.

The current study used a mixed-method approach to obtain quantitative and qualitative data. The researcher collected quantitative data through a pre-test and post-test to identify the effectiveness of multisensory instruction in enhancing English language vocabulary acquisition before and after the research. On the contrary, qualitative data were gathered by applying a reflective journal and a structured interview with a Likert Scale questionnaire to examine students' perceptions and experiences about learning vocabulary through multisensory instruction. Mixed methods are described as "research in which the investigator collects and analyses data, integrates the findings, and draws inferences using both qualitative and quantitative approaches or methods in a single study" (Tashakkori & Creswell, 2007, p. 4).

Moreover, the research design was focused on a mixed approach in which quantitative and qualitative data were gathered to answer the following research questions: "How effective is multisensory instruction in enhancing English language vocabulary acquisition?" and "How do students perceive and experience multisensory instruction in learning English vocabulary?". Considering that this study followed an intervention proposal based on an action-research model, it started recognizing the main problem and finding a possible answer to solve it. Hopkins (2002) maintains that "action research combines a substantive act with a research procedure; it is action disciplined by inquiry, a personal attempt at understanding while engaged in a process of improvement and reform". Following the above descriptions, the current study also applied the correlational design that, according to Devi et. al (2023), is

a study design that investigates the relationships between two or more variables in a single group, which can occur at several levels. Then, an intervention plan was applied to the target group from the research study, and finally, it helped the researcher to establish conclusions and recommendations.

The instruments and techniques that the researcher used to gather data were the following: Firstly, for the quantitative approach, the researcher applied the testing technique with the instruments of a pre-test and a post-test to identify the effectiveness of multisensory instruction in enhancing English language vocabulary acquisition. A pre-test was elaborated with 9 multiple-choice questions using the Ecuadorian Ministry of Education scale, which is out of 10, and applied at the beginning of the intervention plan to measure the knowledge of students' vocabulary according to form, meaning, and use. A similar test was implemented at the end of the study as a post-test to notice the differences in the advancement of their vocabulary acquisition after executing multisensory instruction. It is important to note that before the intervention plan, the pre-test and post-test instruments were validated by two expert judgments who checked the questions based on a rubric for clarity, coherence, and relevance.

Secondly, for the qualitative approach, the observation technique with the instrument of a reflective journal was used to check the students' progress in their English vocabulary acquisition. Additionally, this technique allowed the researcher to collect relevant qualitative data, complement the quantitative analysis, and establish conclusions.

Similarly, for the qualitative approach, the researcher applied a structured interview technique to examine students' perceptions and experiences about learning vocabulary through multisensory instruction. Furthermore, it was designed with 9 questions following the Likert Scale about auditory, visual, kinesthetic, and tactile techniques to complement the

quantitative data.

Considering the study's design, it is relevant to state that the researcher used descriptive and inferential statistics to process and analyze the quantitative data by using the JAMOV program to conclude about the population based on the findings that the researcher observed in the sample (Sugathan, 2022). Moreover, this data was represented in tables and graphs to take measures of central tendency, such as mean, standard deviation, minimum, and maximum. On the other side, the qualitative data were represented by categorizing and analyzing it with the indicators through a thematic analysis, which according to Crosley (2021) is the study of patterns to uncover meaning and it is useful when looking for subjective information, such as a participant's experiences, views, and opinions. In other words, it helped the researcher to support the results of students' perceptions and experiences about learning vocabulary through multisensory instruction.

Finally, the present research project was based on the action research model proposed by Kemmis and McTaggart (1988), which included 4 stages: planning, acting, observing, and reflecting. After identifying the research gap, a proposal based on multisensory instruction in enhancing English vocabulary acquisition was designed in the planning stage. Moreover, the student's legal representatives signed a consent form to allow the researcher to develop the intervention plan. After that, the pre-test instrument was applied to the target population. In the acting stage, the proposal, which includes applying techniques of multisensory instruction, such as auditory, visual, kinesthetic, and tactile, was developed. While the proposal was incorporated in the observing stage, the research instruments, such as a reflective journal and a structured interview, were applied to collect qualitative information. Then, the post-test instrument assessed students' progress. Lastly, the main findings were interpreted and discussed during the reflecting stage to establish the conclusions.

RESULTS

This part details how the objectives of this action research were accomplished.

Objective 1. To integrate multisensory instruction in English vocabulary acquisition among 3rd graders

Table 1. Pre-test. Descriptive measures of English vocabulary

Pre-test	N	Mean	SD	Min	Max
Form (3 points)	35	1.46	0.861	0.000	3.00
Meaning (3 points)	35	1.79	1.009	0.500	3.00
Use (4 points)	35	2.70	0.909	1.500	4.00
TOTAL	35	5.94	2.179	3.000	9.50

Elaborated by Alvarado et al., 2025

Table 1 details the scores gathered from the pretest instrument, which was applied to 35 students. The pretest was administered to the students before the intervention plan to measure the knowledge of students' vocabulary in terms of form, meaning, and use. Most of the students got more than 50% of the total mean score (5,94/10) with a standard deviation of 2,17. Unfortunately, their mean scores were low; they ranged from 3,00 to 9,50. Considering the total mean score, the teacher-researcher defined it as an issue and decided to apply the present action research with her third-grade students.

From the three vocabulary indicators under study, "form" got the lowest mean score (1,46/3) with a standard deviation of 0,86, and the scores ranged from 0,00 to 3,00 points. These results demonstrate that students did not fully write sentences using the third person singular and present progressive tenses or they were not able to read aloud vocabulary related to colors. On the other hand, when analyzing the indicator for "meaning" the results showed that students obtained (1,79/3) with a standard derivation of 1,0 that is, less than half of the full score, and the scoring average from 0,50 as the minimum range to 3,00 as a maximum range.

These findings reveal that students struggled to choose the correct definitions of words, select the similar meaning of words, or associate words.

Finally, according to the indicator “use”, the collected data details that students got more than half of the full score (2,70/4). However, the standard deviation of 0,90, the minimum score of 1,50, and the maximum score of 4,00 show that some participants had a very high understanding level of grammatical functions and collocations. In contrast, others had a very low level. Overall, the “use” indicator was somewhat better than “form” and “meaning”. However, the participants needed improvement in all the sub-skills aforementioned since the overall percentage is 59,4%.

Table 2. Post-test. Descriptive measures of English vocabulary

	N	Mean	SD	Min	Max
Form (3 point)	35	2.39	0.643	1.000	3.00
Meaning (3 points)	35	2.34	0.684	0.500	3.00
Use (4 points)	35	3.29	0.689	2.000	4.00
TOTAL	35	8.01	1.412	5.000	10.00

Elaborated by Alvarado et al., 2025

On the other hand, Table 2 presents the same 35 students' scores after the intervention plan. A posttest was administered to the students to measure their gains in vocabulary knowledge after the intervention plan to measure the knowledge “form”, “meaning”, and “use”. Overall, the results show that students got a total mean score of (8,01/10) with a standard deviation of 1,41, which exceeded the average score of 7 points proposed by the researcher, with a percentage of 80%, which indicates a successful improvement from the pretest findings. It is noticeable that mean scores ranged from 5,00 to 10,00 points, which means they are higher than the pretest findings. Additionally, the mean score of the students on the “form” indicator in the pre- test was (1,46/3) and in the post-test students gathered a mean score of (2,39/3), which indicates a difference of 0,93 points indicating that students fully write sentences using

the third person singular and present progressive tenses and recognize colors in English to read them aloud.

Moreover, considering the “meaning” indicator the students obtained a total mean of (1,79/3) in the pre-test, whereas in the post-test they achieved a total mean of (2,34/3), which presents a difference of 0,55 points and reveals that they mostly chose the correct definitions of words, selected similar meanings, and associated words with occasional errors. Similarly, regarding the “use” vocabulary aspect, the students acquired a total mean of (3,29/3) in the post-test, in contrast to the results achieved in the pre-test, where they got a total mean of (2,70/3), showing they got specified information of grammatical functions and collocations accurately with only minor errors. These results showed an improvement of 2,07 points.

Table 3. Normality test Shapiro Wilk -Pretest/Posttest vocabulary

	N	Mean	SD	Min	Max	Shapiro-Wilk	
						W	P
PRE-TEST	35	5.94	2.18	3.00	9.50	0.922	0.017
POST-TEST	35	8.01	1.41	5.00	10.00	0.944	0.075

Elaborated by Alvarado et al., 2025

Once the pretest and posttest results are obtained, Table 3 shows the Shapiro-Wilk test, which presents a normal distribution of data for the pretest 0,017 and posttest 0,075. Similarly, a parametric test (Paired T-Test) was employed to find whether the difference between pretest and post-test results was statistically significant, as displayed below.

Table 4. Statistical difference between pretest and posttest of vocabulary using Paired T-Test

			Statistics	IG	P
PRE-TEST	POST-TEST	T of Student	-6.56	34.0	< .001

Elaborated by Alvarado et al., 2025

Table 4 presents the results of the Paired T-test which compares the pretest and posttest taken by 35 participants of this study (third-graders) to see if there is a statistically significant

difference between them. The value (-6.56) reflects a large t-value that indicates a significant difference between the pretest and posttest. Similarly, the p-value $< .001$ is less than .001, which indicates a very strong statistical significance. In other words, there is a high probability (99%) that the intervention improved English vocabulary in third graders was effective.

Table 5. Correlations

	TOTAL 1		TOTAL 2
Pre-test	—		
Post-test	0.529	***	—

Note. * $p < .05$, ** $p < .01$, *** $p < .001$
Elaborated by Alvarado et al., 2025

Table 5 displays the correlation between pre-test and post-test scores in an investigation likely related to multisensory instruction in English vocabulary acquisition. The significant positive correlation ($r = 0.529$, $p < .001$) between pre-test and post-test scores indicates that students who performed well on the initial assessment (pre-test) also tended to perform well on the subsequent assessment (post-test).

This finding suggests that prior vocabulary knowledge may be a significant predictor of learning outcomes when implementing multisensory instruction. Students with a stronger initial vocabulary base might be better equipped to benefit from the multisensory approach, as they may have a stronger foundation for building upon.

However, it is crucial to remember that correlation does not imply causation. While the significant correlation between pre-test and post-test scores suggests a relationship, it does not necessarily mean that the pre-test scores directly caused the post-test scores. Further research is needed to fully understand the interplay between prior knowledge, multisensory instruction, and vocabulary acquisition outcomes.

Objective 2. To identify students' perceptions and experiences about learning vocabulary

through multisensory instruction.

Table 6. Students' confidence with visual support

	f	%	Accumulated
Very non-confident	1	3%	3%
Non-confident	1	3%	6%
Confident	15	43%	49%
Very confident	18	51%	100%
Mean	35	100%	

Elaborated by Alvarado et al., 2025

The findings in Table 6 illustrate the answers gathered in the structured interview about the students' confidence when visual support is provided in the class. A significant majority (51%) felt very confident, and 42% answered that they were confident with the statement. Moreover, the information from the reflective journal demonstrated that the visual support, such as flashcards, videos, posters, textures, and realia that the teacher-researcher applied in the intervention plan, was didactic, engaging, interactive, and made students feel confident to participate actively in the classes. However, a small minority (3,5%) answered they were non-confident, and (3,35%) were very non-confident with the visual material provided in the classroom.

Table 7. Auditory resources to introduce vocabulary

	f	%	Accumulated
Definitely	24	68,5%	68,5%
Probably	10	28,5%	97%
Probably not	1	3%	100%
Not	0	0%	100%
Mean	35	100%	

Elaborated by Alvarado et al., 2025

As is appreciated in Table 7, several students (68,5%) expressed that they definitely liked the introduction of English vocabulary through songs, videos, or auditory resources. These findings are validated by the researcher's reflective notes, which indicate that incorporating

auditory material into the English classes helped students reinforce and improve their vocabulary. Similarly, 28,5% of the participants expressed that they probably liked to work developing their hearing senses. Nevertheless, a smaller percentage of the students (3%) stated they probably do not like to learn vocabulary by using auditory material. Finally, it is noteworthy that none of the participants valued auditory resources as ineffective or boring tools for introducing vocabulary.

Table 8. Body movements to acquire vocabulary

	f	%	Accumulated
Definitely	19	54%	54%
Probably	10	28,5%	82,5%
Probably not	4	11,5%	94%
Not	2	6%	100%
Mean	35	100%	

Elaborated by Alvarado et al., 2025

The results in Table 8 corroborate that more than half of the students (54%) stated that they felt happy when making body movements to acquire vocabulary. Similarly, the reflective journal reveals that the researcher observed that students enjoy dancing, jumping, and acting to learn the meaning of new words and use them in appropriate contexts.

Therefore, some participants (28,5%) reported feeling happy in developing kinesthetic movements. On the contrary, a small minority of the participants (11,5%) and (6%) expressed that they probably did not feel happy about acquiring vocabulary through body movements. Additionally, the teacher-researcher observed that students often missed key vocabulary or got lost in the activities because they got distracted by the material or did not have the confidence to develop body movements during the classes.

Table 9. Manipulation of textures and materials

	f	%	Accumulated
Very non-comfortable	0	0%	0%
Non-comfortable	6	17,5%	17,5%
Comfortable	10	28,5%	46%
Very comfortable	19	54%	100%
Mean	35	100%	

Elaborated by Alvarado et al., 2025

According to Table 9, 54% of the participants stated they were very comfortable with manipulating textures and materials at the moment of learning vocabulary in terms of form, meaning, and use. Moreover, several students (28%) reported feeling comfortable in tactile exercises by developing their gross and motor skills in developing kinesthetic movements. These percentages are verified with the observations and notes taken from the reflective journal, where students from third grade were encouraged to work with different types of textures. On the other hand, only 17,5% of the students indicated they felt uncomfortable learning vocabulary through the manipulation of textures and materials. This coincides with the researcher's notes from the reflective journal, which show that some students were afraid to touch new textures, associate, and retain their meaning in the target language. Finally, it is remarkable that none of the participants expressed they were very non-comfortable with the application of tactile strategies to learn vocabulary.

Table 10. Multisensory instruction to learn vocabulary

	f	%	Accumulated
Strongly disagree	0	0%	0%
Disagree	0	0%	0%
Agree	14	40%	40%
Strongly agree	21	60%	100%
Mean	35	100%	

Elaborated by Alvarado et al., 2025

Based on the results collected from the structured interview, Table 10 displays that more than half of the students (60%) strongly agreed that multisensory activity variations helped them to learn English vocabulary. In the same way, 40% of the participants expressed that after the intervention plan that they agreed that multisensory instruction benefited them in learning, remembering, and using new words and phrases. This information is consolidated with the reflective journal, where the researcher discerned that students who developed their auditory, visual, kinesthetic, and tactile skills were more likely to acquire English vocabulary in terms of form, meaning, and use. Lastly, it is noticeable that none of the participants disagreed or strongly disagreed that multisensory activity variations did not help them to learn vocabulary.

DISCUSSION

The present study was carried out to integrate multisensory instruction in English vocabulary acquisition among 3rd-grade students. In addition, the researcher stated two specific objectives. Firstly, the effectiveness of multisensory instruction was identified in enhancing English language vocabulary acquisition. Secondly, the students' perceptions and experiences about learning vocabulary through multisensory instruction were examined. Therefore, to fulfill the research questions, the researcher applied a mixed- method approach to obtain quantitative and qualitative data before and after the intervention plan.

As described in the results section, there was a significant increase between the pretest and posttest findings after the application of the intervention plan. This could be good evidence that multisensory instruction based on auditory, visual, kinesthetic, and tactile strategies worked successfully on students' vocabulary acquisition regarding the aspects of form, meaning, and use. These findings are similar to the investigation conducted by López et al. (2019), who determined that the participants learned vocabulary using their senses in different stages. Moreover, the research study directed by Lawrence (2021), emphasized the

effectiveness of learning definitions of words through mental imagery, where the results gathered from the three study phases: sensory-motor imagery stage, visual features, and finally meaning repetition of words revealed that vocabulary instruction and its combination with multisensory imagery was accurate for students at all levels.

Additionally, the research study that supports the findings gathered from the present investigation was established by Jang and Chang (2023), which explored pairing visual, read-aloud, and aural learning strategies for learning the meaning and pronunciation of English words. Also, their results indicated that the students' sample learned and retained English vocabulary by enhancing memory strategies. Finally, the relevance of multisensory instruction is supported by the findings from Pellerin and Lavoie (2019), which revealed that the students who participated in dialogical and multimodal approaches for teaching and learning vocabulary to young learners were engaged in acquiring English vocabulary through multisensory instruction in EFL classes.

Besides, there are several possible explanations for attributing a positive effect to multisensory instruction. According to Syahputri (2019), multisensory instruction occurs when learners fulfill the teachers' assignments by developing their senses to learn, memorize, and retain the different contents. Thus, teachers who incorporate activities that integrate human senses (sight, taste, touch, hearing, and smell) make their students engage in new experiences, by understanding and remembering new topics easily and effectively. Other explanation is described by Ferreira and Vasconcelos (2020), which affirms that "when students invoke more than one sense to create mental representations of objects, concepts, or phenomena, they tend to interact with them more intensely and, thus, retain what they learn for longer periods".

While the research on multisensory instruction in English vocabulary acquisition has

generally shown positive results, it is important to consider alternative explanations for any unexpected findings. One reason is that the specific implementation of multisensory instruction may have varied across different studies, leading to differing outcomes. Additionally, individual differences in learners' cognitive styles and preferences may influence their improvement with multisensory approaches. These ideas are supported by Rosyada-AS and Apoko (2023), who mention that some students struggle to acquire English vocabulary in the classroom through multisensory instruction because they have various linguistic and cultural backgrounds, as well as present diverse learning styles.

While the present research study provides valuable insights into multisensory instruction, it is important to acknowledge its limitations, particularly in terms of the duration of the intervention plan, the number of students, and the teacher's role as the researcher. Firstly, the intervention plan occurred in eight weeks and was a relatively short-term intervention, which may not fully capture the long-term effects of multisensory instruction. Secondly, the findings from this study cannot be taken as general data since the collected results were obtained from a sample of 35 students. Finally, another limitation arises from the researcher's role as the teacher, which can introduce potential biases in data collection and analysis. The researcher's expectations and beliefs about the effectiveness of multisensory instruction may inadvertently influence their observations and interpretations of student performance.

CONCLUSIONS

The results of the study demonstrated a significant improvement in students' English vocabulary acquisition in terms of “form”, “meaning”, and “use” after the implementation of multisensory instruction. This was evident in the substantial increase in post-test scores compared to pre-test scores, indicating the effectiveness of multisensory instruction in enhancing students' English vocabulary.

The significant positive correlation between pre-test and post-test scores demonstrated that the integration of auditory, visual, kinesthetic, and tactile elements into vocabulary instruction led to substantial improvements in students' vocabulary knowledge and they were engaged in effective learning experiences that cater to their diverse learner needs. These findings align with the expectations outlined in the introduction and directly address the research objective. Equally important, students' perceptions were mostly positive toward the use of multisensory instruction to acquire English vocabulary. The participants appreciated the variety of activities and strategies that involved the development of their senses making them engaging and memorable. Therefore, students reported increased motivation, improved retention of vocabulary, and enhanced understanding of word meanings and use them appropriately. However, from the structured interview and reflective journal notes, it was noticeable that some students expressed challenges in keeping up with the pace of activities or materials and the need for more opportunities for independent practice.

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