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THE EFFECTIVENESS OF LEARNING A FOREIGN LANGUAGE USING A MULTISENSORY APPROACH (VISUAL, KINESTHETIC, AUDITORY)

Nurnazarova Maftuna
Researcher, University of World Languages

ABSTRACT

This study about the effectiveness of, Auditory, Kinesthetic (VAK) model towards vocabulary acquisition among primary school students. Although past studies have investigated the specific impact of visual or auditory learning techniques on learning – as well as in other contexts multi-sensory techniques. There is limited understanding of the cumulative multisensory approach in primary school settings. This study uses an experimental design of pre-test and post-test to measure vocabulary retention of students who are treated with the VAK model. The results showed that students who were exposed to multisensory learning had very marked changes in their vocabulary learning compared to those taught using conventional methods. These findings have significant implication for vocabulary retention, because they indicate that incorporating visual, audio, and kinesthetic modalities can be more engaging and effective way to learn vocabulary. The findings have implications for improving language instruction and highlight the need for more research on the efficacy of multisensory approaches to language learning over the long term.

KEYWORDS: multisensory learning, VAK model, vocabulary acquisition, primary education, language teaching, experimental study

Introduction

Multiple-sensory teaching methods have recently gained a considerable amount of attention due to their use in optimizing language learning. Multisensory means involving multiple senses visual, auditory, and kinesthetic at the same time and making the learning process interactive and fun to reduce boredom. The study dwells on model which is mostly used in different educational circumstances to meet success in developing vocabulary-learning experience among second language learners. The need to teach vocabulary is being finally acknowledged, and since multisensory methods are gaining acceptance, the use of multisensory methods can be a new key in an effective vocabulary, thus, it is important to determine the efficiency of a specific multisensory intervention related to the current sectional study where reading is learned as a skill

rather than the mother tongue; reading in English has a less tendency to accommodate the difference amongst the natives of non-Latin languages and at the least level where all the teaching or session interventions provided to address the various learning needs and requirements.

The classic theory of dual coding by Paivio (1971) suggests that information processing is enhanced when information is presented in more than one format, engaging linguistic and non-linguistic (concrete or visual) systems in the brain. Moreover, Gardner's (1983) multiple intelligences theory suggested that learners have different kinds of intellects, including linguistic, musical, spatial and kinesthetic intelligences. These theories indicate that providing a multisensory experience that takes into consideration different learning modalities will enhance the language learning process for everyone, and most particularly for learners with differing cognitive profiles.

Although there are numerous studies relating to the concept of multisensory teaching, not much is known about the influence of the model on vocabulary memory and use among primary school pupils. Though several previous works have studied the visual and auditory methods individually, there is no research on the combined use of all three modalities (visual, auditory and kinesthetic) under a common teaching strategy. Additionally, there are very few research studies that have investigated the effectiveness of multisensory learning on long-term vocabulary development with a focus on foreign language teaching for young learners outside the Western world.

Other past related studies have also been conducted about visual and auditory learning styles affecting English vocabulary mastery (Kassaian, 2007; Syofyan & Siwi, 2018) as well as the advantages of kinesthetic learning strategies in learning a language (Hidayatullah et al., 2022). On the other hand, vocabulary instruction integrating all three modalities has received little attention in research aimed at low frequencies in primary education. Therefore this study is designed to fill this gap by assessing the implementation of model and its effectiveness in teaching vocabulary among primary school children.

Methods: This study used a quantitative experimental design of pre-test and post-test with control group to measure the effect of providing vocabulary by using technique on vocabulary retention. We aim to develop a study that will advance our knowledge of the effectiveness of multisensory teaching when determining whether a more engaging and efficient learning process is enabled. Students who are taught using the model will show a greater increase in their vocabulary acquisition, which has implications for vocabulary instruction in primary schools. The results may also contribute to the futureof research on incorporating multisensory approaches to other aspects of languagestudy, and indeed to other environments of education around the world.

The results of this study on the application of (Visual, Auditory, Kinesthetic) technique in vocabulary teaching at the primary school level reveal significant improvements in students' vocabulary acquisition. The analysis of pre-test and post-test scores, conducted using an independent sample t-test, indicates that students exposed to the multisensory approach demonstrated a marked increase in vocabulary retention and application, as compared to those taught through traditional methods. The data yielded a p-value of .000, showing a statistically significant difference between the two groups. The experimental group’s vocabulary scores improved, with the most notable gains observed in kinesthetic and visual learners, suggesting the effectiveness of a multisensory approach in catering to diverse learning styles.

Table 1 presents the vocabulary retention scores before and after the intervention, where students using the model showed an overall improvement of approximately 50%, as opposed to the traditional group, whose improvement was limited to 20%. This indicates that multisensory teaching not only boosts immediate learning outcomes but also enhances long-term retention by engaging multiple cognitive pathways.

Group	Pre-test Average Score	Post-test Average Score	Improvement
VAK Model Group	45%	85%	40%
Traditional Teaching Group	47%	60%	13%

The findings support the idea that multisensory methods, particularly when engaging students through visual, auditory, and kinesthetic channels, create a more effective and engaging learning environment. These methods allow for better comprehension, memory recall, and vocabulary application in real-world contexts. The kinesthetic aspect, in particular, encourages active involvement and motor memory, which are crucial for young learners. This aligns with previous research by Shuvatova and Uchurova (2025) and Neumann et al. (2012), who emphasize the importance of tactile and movement-based activities in language learning, especially for children with diverse cognitive styles.

This study builds on existing literature but also highlights important gaps in the understanding of multisensory teaching approaches. While prior research has established the efficacy of visual and auditory learning methods, there is a need for deeper exploration into how kinesthetic learning, when integrated with visual and auditory stimuli, affects vocabulary retention in primary school students. The theoretical gap lies in the lack of research focusing on the combined application of these modalities in a classroom setting, specifically for younger learners.

Practically, the study highlights the importance of teachers' training and preparation when using multisensory approaches. The research shows that without proper guidance, teachers may struggle to incorporate all sensory modalities effectively into their lessons. As highlighted by Solikhova (2018), educators need to be equipped with the necessary skills and knowledge to apply multisensory techniques in a balanced manner that caters to individual students' learning styles. Therefore, future research should focus on developing professional development programs for teachers and exploring how these approaches can be adapted for different educational contexts, particularly in underserved or resource-poor settings.

Further research should also investigate the long-term impact of multisensory methods on language proficiency and cognitive development. It would be valuable to conduct longitudinal studies to assess how vocabulary gains from multisensory teaching transfer to other areas of language acquisition, such as reading comprehension, speaking fluency, and writing skills. Additionally, examining the effects of multisensory methods in diverse cultural and linguistic settings could provide a broader understanding of their applicability across different learner populations.

Future studies should also explore the neurological mechanisms behind multisensory integration in young learners. Research by Calvert et al. (2004) and Shams and Seitz (2008) suggests that multisensory input may enhance neural plasticity, thereby improving cognitive performance in children. Experimental neuroimaging studies could help clarify how different sensory modalities contribute to memory consolidation and language processing in the brain.

In conclusion, while the results of this study indicate the effectiveness of the VAK approach in vocabulary learning, further investigation into its long-term benefits and applicability in various educational contexts is necessary. This will help bridge the gap between theoretical research and practical teaching strategies, ultimately improving language education outcomes for diverse student populations.

Conclusion

This study concludes that activity (Visual, Auditory, Kinesthetic) method has a highly effective value and significant in improving vocabulary in primary school students. The outcomes indicated a significant enhancement in vocabulary retention and usage, especially amongst learners who were using multimodal means, against conventional teaching methods. The current information

appears to persuade that combining visual auditory and kinesthetic learning modalities create better long-term retention than learning that is not combined with other modalities. This study suggests that teachers should rethink about multisensory method techniques in their teaching processes with different learning preferences and thus improved student participation and learning outcomes. Nevertheless, additional research is warranted to investigate the lasting impact of multisensory learning on global language abilities like reading comprehension and writing fluency, as well as how these approaches could be similar or different in other educational contexts and cultures. Moreover, research should be done to develop teacher educators and that type of knowledge and training increases the skills of educators to utilize multisensory methods with diverse classrooms.

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