

Mind Mapping Technique for Vocabulary Enhancement: A Practical Learning Experience

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Abstract: This study investigates the effectiveness of the Mind Mapping Technique in enhancing vocabulary development among undergraduate students. The main aim of the study was to determine how the use of visual learning tools, specifically mind maps, could assist students in organizing, retaining, and recalling new words more effectively. The objectives included helping students visually connect new vocabulary with related concepts, strengthen their understanding of word associations, and ultimately improve their language fluency and communication skills. The session was structured into three key parts: an introductory segment on mind mapping, interactive hands-on activities, and a worksheet-based analysis to evaluate the outcomes. During the session, students were introduced to the basics of mind mapping and shown how to use this technique to break down and connect unfamiliar words. They participated in brainstorming tasks where they generated ideas related to specific themes and created word webs that visually mapped out the meanings, synonyms, antonyms, and usage of new vocabulary. The findings of this study highlight the potential of the Mind Mapping Technique as a valuable educational tool for vocabulary development.

Keywords: Communication Skills, Language Learning, Mind Mapping, Vocabulary Development, Word Associations

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Introduction

Vocabulary development plays a crucial role in mastering any language, as it directly affects a learner's ability to communicate effectively, comprehend written texts, and express ideas with clarity. Vocabulary, as a fundamental component of English learning holds an indispensable position. Mei-qu, Z & Ming-hao, J. (2025) A strong vocabulary foundation contributes significantly to both academic success and real-life communication. Traditionally, vocabulary has been taught using methods such as rote memorization, repetitive reading, and dictionary-based learning. While these methods can provide initial exposure to new words, they often result in passive learning and weak retention over time. Learners may struggle to recall or use the words in different contexts due to the lack of meaningful connections.

In contrast, the Mind Mapping Technique offers a dynamic and interactive approach to vocabulary learning. It provides a great way to visualize vocabulary in context, helping them make stronger associations between new words and their meanings. This method encourages the brain to process information more actively, linking new vocabulary to prior knowledge. As a result, learners are more likely to understand, remember, and apply the words effectively. Mind mapping not only supports visual learning but also promotes critical thinking, creativity, and deeper engagement with the language.

This study focuses on evaluating the effectiveness of the Mind Mapping Technique in enhancing vocabulary development among undergraduate students. An interactive learning session was conducted with 133 participants, incorporating expert instructions, student-led activities, and practical exercises. The session encouraged students to brainstorm, build word networks, and present their mind maps, fostering a collaborative learning environment.

By analyzing the outcomes of this session, the study aims to assess how visual learning tools like mind mapping can improve vocabulary acquisition, retention, and usage. The findings of this research contribute to the ongoing exploration of innovative and learner-centered teaching methods, offering valuable insights into how mind mapping can transform traditional vocabulary instruction into a more engaging and effective experience.

Literature Review

The research by Hanf (1971) highlights the role of mind mapping in improving reading comprehension and critical thinking. For language learners, the technique proves especially beneficial, as it enables them to visually categorize and link vocabulary with meanings, usage, synonyms, antonyms, and context. This structured organization enhances memory and makes recall easier during reading, writing, or conversation. Furthermore, mind mapping encourages learners to actively engage with new vocabulary by associating it with prior knowledge and visual cues.

Pratiwi et al (2023), in their research paper on Mind-Mapping Technique and Writeabout Application conclude that integrating the mind-mapping technique and Writeabout can bring positive impacts on students' writing abilities and he recommend this model for vocabulary development as well.

In the study on the application of the Mind Mapping Technique to English vocabulary teaching, Mei-qu, Z & Ming-hao, J. (2025) emphasize the importance of student-centered learning and the integration of interdisciplinary knowledge. He highlights that using mind maps as visual cognitive tools can significantly enhance vocabulary development by promoting divergent thinking and deeper conceptual understanding. This approach helps learners connect new words in meaningful ways, making vocabulary acquisition more systematic and multidimensional.

This study builds on these insights by applying mind mapping to vocabulary acquisition. By using this method, students can develop stronger word associations, leading to better understanding, improved retention, and more effective language use.

Research Methodology and Data Collection & Analysis

This study employed a structured, interactive research methodology to evaluate the effectiveness of the Mind Mapping Technique in enhancing vocabulary development among undergraduate students. The approach was designed to actively engage learners while also collecting measurable data to assess outcomes. The methodology was divided into three core phases: Introduction to the Technique, Hands-on Learning and Application, and Assessment and Feedback Analysis. Each phase played a critical role in guiding students through the process and evaluating the impact of the intervention.

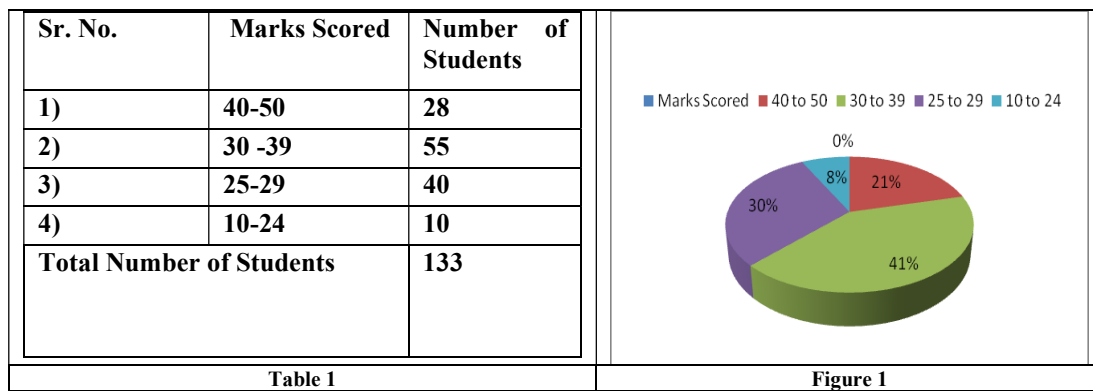
Introduction to the Mind Mapping Technique: The first phase began with an introductory session aimed at familiarizing students with the concept of mind mapping. The facilitator explained the significance of visual learning tools in language acquisition and how mind mapping, in particular, can be used to enhance vocabulary development. Students were introduced to the core idea that mind mapping helps organize information in a non-linear, visual format, making it easier to understand relationships between words and retain new vocabulary. To support this learning, a live demonstration was conducted. The facilitator used a simple example to construct a basic mind map on the board, showing how a central word could branch out into various categories, synonyms, antonyms, and usage examples. In addition, students were provided with printed handouts that included definitions, examples of mind maps, benefits of the technique, and step-by-step instructions for creating their own. These materials served as useful references and reinforced students' understanding of the strategy. The goal of this phase was not just to introduce the concept but to build student confidence in using the tool independently.

Hands-on Learning and Application: In the second phase, students participated in a practical session that emphasized active learning. Each student received a worksheet consisting of five structured vocabulary-building activities. These tasks were designed to encourage students to apply the mind mapping technique to specific themes, requiring them to think critically and creatively.

The topics provided on the worksheet were: i) Types of diseases, ii) Causes of diseases, iii) Descriptive words for diseases. For each topic, students were instructed to brainstorm at least 20 relevant words and organize them visually into a mind map format. This exercise challenged students to identify word categories, recognize language patterns, and form logical connections between related terms.

The activity lasted 30 minutes and promoted peer interaction, discussion, and collaborative brainstorming. Students were encouraged to share ideas, seek suggestions, and help one another while working. Meanwhile, facilitators moved around the classroom, offered support, clarified doubts, and ensured that students remained engaged with task. This hands-on approach created a dynamic and inclusive learning environment that actively involved all participants.

Assessment and Feedback Analysis: Following the completion of the worksheets, the third phase involved a systematic assessment of the students' work. Each worksheet was evaluated using a 50-mark rubric. The criteria focused on the organization of vocabulary, clarity of structure, creativity in word associations, and accuracy in using the mind mapping technique. The performance of the 133 students was grouped into the following categories (table 1 & figure 1):



These results show that the majority of students (83 out of 133) scored 30 marks or higher, indicating a strong understanding of the mind mapping technique and its application in vocabulary learning.

To gather further insights, a feedback form was distributed to all participants. The feedback focused on student satisfaction, clarity of instruction, and perceived usefulness of the session. The responses were highly positive. One Hundred and Twenty-Six (126) students submitted the feedback. The analysis of the feedback is as follows:

Sr. No.	Feedback Question	Analysis	
		Response	No of Students
1)	How relevant did you find the topic of the workshop?	Very Relevant	93
		Relevant	20
		Somewhat Relevant	10
		Not Relevant	03
2)	How would you rate the presenter's and the resource person's explanation of the concept "Mind Mapping Technique for Vocabulary Development"?	Excellent	90
		Good	20
		Fair	08
		Poor	08
3)	Did the workshop help you understand how to use mind mapping to improve vocabulary?	Yes, fully	80
		Yes	15
		Yes, Somewhat	15
		No, not at all	16
4)	Was the pace of the workshop appropriate?	Too fast	26
		Just Right	80

		Too Slow	20
5)	Did the workshop include enough practical examples or exercises for you to practice the technique?	Yes, definitely	85
		Somewhat	20
		Not at all	21
6)	How engaging was the workshop? (Activities, discussion etc.)	Very Engaging	94
		Moderately Engaging	19
		Not Engaging	13
7)	How confident are you in applying mind mapping techniques to improve your vocabulary after this workshop?	Very Confident	79
		Somewhat Confident	37
		Not Confident	10

Table 2

This feedback provided valuable qualitative data, reflecting the students' engagement and enthusiasm for the activity.

Outcome and Findings

The overall outcomes of the study strongly suggest that the Mind Mapping Technique is an effective and engaging method for vocabulary development. Students demonstrated improved abilities in forming word associations, recognizing word families, and applying new vocabulary in a structured manner. The combination of visual aids, collaborative learning, and guided practice contributed to meaningful learning experiences.

The feedback reinforced the quantitative findings by highlighting the session's success in creating an interactive, student-centered learning environment. Many students expressed their interest in continuing to use mind mapping in their future language learning practices.

In conclusion, this research supports the integration of mind mapping into vocabulary instruction as a practical and impactful strategy for enhancing language skills among undergraduate learners.

Discussion

The study underscores the efficacy of the Mind Mapping Technique as a transformative and innovative approach to vocabulary development in undergraduate language learning. It highlights the technique's ability to improve language acquisition by merging creativity with cognitive engagement. Mind mapping, which is grounded in the principles of visual learning, encourages students to move beyond traditional memorization techniques and engage more deeply with language content. Through this method, learners are able to visualize vocabulary in structured diagrams, which supports better comprehension, improved retention, and practical application. As a result, the vocabulary learning process becomes more dynamic, engaging, and learner-centered.

By integrating mind mapping into the learning environment, the study found that students were more capable of organizing their thoughts, building meaningful word associations, and enhancing their overall language skills. The qualitative insights gathered from the student feedback further reinforce the significance of this technique. Feedback revealed a strong alignment between the cognitive benefits offered by mind mapping and the students' real-world classroom experiences. The majority of participants expressed that the technique made vocabulary learning easier, more enjoyable, and much more effective compared to conventional methods. They appreciated the structured way of learning, which allowed them to make interconnected word associations, a process that greatly supported long-term memory and recall.

Moreover, the clarity of instruction provided by the facilitator and the inclusion of hands-on exercises were identified as crucial elements in the effectiveness of the session. These components played an essential role in

helping students not only understand the theoretical concept of mind mapping but also practice it in a meaningful way. The interactive design of the session, which allowed students to create their own mind maps based on given topics, helped reinforce both conceptual understanding and student engagement. This participatory approach gave students the chance to be active learners, rather than passive recipients of information.

A key advantage of mind mapping highlighted in the study is its ability to move beyond passive memorization. Unlike rote learning, which focuses on repetition without context, mind mapping activates higher-order thinking skills by helping learners visualize relationships between words. This semantic organization of vocabulary fosters a more intuitive and connected understanding of language. When students create mind maps, they not only recall words but also understand how those words relate to each other in meaning, usage, and context. This process significantly boosts memory retention and makes vocabulary acquisition more natural and sustainable.

Furthermore, student engagement and confidence emerged as central elements. The session's design incorporated collaborative discussions, peer brainstorming, and guided interaction, all of which created a learning environment that was both inclusive and stimulating. These activities not only helped students apply the technique confidently but also made them feel more motivated and involved in their own learning journey. The sense of achievement that came from independently constructing mind maps added to their self-confidence and reinforced the learning outcomes.

Therefore, the study affirms that mind mapping has strong potential as an innovative pedagogical tool for vocabulary enhancement in language education. Its capacity to improve linguistic fluency, encourage active learning, and support deeper word associations makes it a highly effective instructional strategy. Incorporating mind mapping into regular language curricula could significantly elevate the quality and depth of vocabulary instruction. It offers a more immersive, cognitively engaging, and visually stimulating alternative to traditional vocabulary teaching methods, paving the way for improved student outcomes and a more enriching learning experience overall.

Conclusion

This study confirms that the Mind Mapping Technique is an effective tool for vocabulary enhancement among undergraduate students. By using a visual and structured approach, mind mapping helps strengthen word associations, improve recall, and enhance language fluency. The results show that 71% of students scored above 50%, demonstrating a strong grasp of the technique. Additionally, qualitative feedback indicates that students found mind mapping engaging, relevant, and practical for vocabulary development.

The study's hypothesis proposed that mind mapping enhances vocabulary retention and application by visually organizing word associations. The data supports this claim, showing that students could create meaningful word connections, recognize patterns, and improve comprehension. Unlike traditional rote memorization, which leads to passive learning, mind mapping encourages active engagement, critical thinking, and deeper understanding.

The practical implications suggest that mind mapping should be integrated into language learning curricula. It transforms vocabulary instruction into an interactive and effective process by fostering participation, creativity, and long-term retention. Educators can use this technique to make language learning more structured, engaging, and beneficial.

In conclusion, mind mapping significantly improves vocabulary learning. The findings support the hypothesis that it enhances word retention, comprehension, and application, making it a valuable tool in modern language education. By adopting visual learning strategies, students can develop better language skills, improved communication, and a deeper understanding of word relationships, leading to greater language proficiency.

References

Hanf, M. Buckley. (1971). *Mapping: A Technique for Translating Reading into Thinking*. WILEY and International Literary Association, JSTER Vol. 14, No. 4, 1971, pp. 225-230, 270 <https://www.jstor.org/stable/40009605>

Mei-qu, Z & Ming-hao, J. (2025). *Study on the Application of Mind Mapping to English Vocabulary Teaching in Junior High School*. Journal of Literature and Art Studies, March 2025, Vol. 15, No. 3, 216-223 doi: 10.17265/2159-5836/2025.03.013. <https://www.davidpublisher.com/Public/uploads/Contribute/67eb46afcefd3.pdf>

Pratiwi et al (2023). *Mind-Mapping Technique and Writeabout Application Integration in an Online Writing Class: An Indonesian Vocational University Context*. TESL-EJ, The Electronic Journal for English as a Second Language. <https://files.eric.ed.gov/fulltext/EJ1383518.pdf>

Conflict of Interest: The author declares “No Conflict of Interest”.

AUTHOR'S BIO-NOTE

Dr. Syed Imtiaz Jukkalkar has been working as an Associate Professor in the Department of English of Shri Shivaji Science & Arts College, Chikhli Dist. Buldana (MS). The college is affiliated to Sant Gadge Baba Amravati University, Amravati. He had twenty-five years of teaching experience at UG. He is a supervisor for three students who are pursuing Ph. D. under his supervision.

APPENDIX

One Day Workshop on Mind Mapping Technique For Vocabulary Development- Working Sheet Part – I

Mind Mapping is a great technique for vocabulary development. It helps learners visualize connections between words, making it easier to remember and understand new vocabulary.

Steps to Create a Vocabulary Mind Map:

i) Choose a Central Word ii) Add Main Branches iii) Add Sub-Branches iv) Use Colors and Images v) Group Synonyms and Antonyms vi) Example Sentences vii) Review and Expand

Example : Disease

Branch 1: Types of Diseases

This branch categorizes different kinds of diseases. It helps learners understand the wide variety of diseases and how they are classified.

Infectious Diseases:

Caused by pathogens like bacteria, viruses, or fungi. Examples include flu, tuberculosis, COVID-19, and chickenpox.

Non-Infectious Diseases:

Not caused by pathogens. Examples include cancer, diabetes, and heart disease.

Chronic Diseases:

Long-lasting conditions that can be controlled but not cured. Examples are asthma, arthritis, and hypertension.

Genetic Diseases:

Passed down through families due to genetic mutations. Examples are cystic fibrosis, sickle cell anemia, and Down syndrome.

Mental Disorders:

Conditions affecting mental health, such as depression, anxiety, and schizophrenia.

Branch 2: Causes of Diseases

This branch explores what leads to diseases, helping learners understand how diseases arise.

Infection: Caused by bacteria, viruses, fungi, or parasites. Examples: flu, malaria, and pneumonia.

Genetics: Hereditary factors that pass on diseases from parents to children. Examples: hemophilia, cystic fibrosis.

Lifestyle Factors: Poor diet, lack of exercise, or smoking can lead to diseases like obesity, heart disease, or lung cancer.

Environmental Factors: Exposure to pollution, toxins, or radiation can cause diseases like asthma or skin cancer.

Autoimmune Issues: When the body's immune system attacks itself, leading to conditions like lupus or rheumatoid arthritis.

Branch : Descriptive Words for Diseases

This branch highlights descriptive words that tell us about the nature of diseases.

Contagious: Diseases that can spread from person to person, like COVID-19 or the flu.

Chronic: Diseases that last a long time or are persistent, such as asthma or arthritis.

Severe: Describes diseases with serious symptoms, like a heart attack or stroke.

Mild: Diseases with less intense symptoms, like a common cold.

Hereditary: Diseases passed down through families, such as Huntington's disease.

Working Sheet Part- II

One Day Workshop on Mind Mapping Technique For Vocabulary Development

Name of the Student : _____ Class : _____ Mob. No. _____

Max. Marks: 50 Min to Pass : 25 Marks Scored : _____

Answer the following questions. Write at least 20 relevant words in the answer of each question. Each question carries 10 Marks.

Q. 1 : What are the different types of diseases?

Q. 2 : What are the different causes of diseases?

Q. 3 : Write down descriptive words that tell us about the nature of diseases.

Q. Write down benefits of e-commerce.

Q. Prepare mind map diagram for the central word “e-commerce”