

Developing Students' Compositions in English Through Mind Mapping Techniques

Gopal Prasad Pandey

Department of English Education, Tribhuvan University, Kathmandu, Nepal

Email: gpandeytu@gmail.com

Received: 26/04/2024

Accepted: 22/08/2024

Published: 01/09/2024

Volume: 5 Issue: 5

How to cite this paper: Pandey, G. P. (2024). Developing Students' Compositions in English Through Mind Mapping Techniques. *Journal of Critical Studies in Language and Literature*, 5(5), 27-36

DOI: <https://doi.org/10.46809/jcsll.v5i5.289>

This work is licensed under the Creative Commons Attribution International License (CC BY 4.0). <http://creativecommons.org/licenses/by/4.0/>



Abstract

This research explores the effectiveness of mind-mapping strategies in developing essay writing skills among secondary-level students in Nepal. The study addresses the extent to which these strategies can improve students' compositions and identifies specific challenges they face, including issues with grammar, vocabulary, organization, and time management. Using an action research design, data were collected from 25 tenth-grade students through observation checklists, tests, and unstructured interviews. The findings revealed that mind-mapping strategies, when combined with group discussions, significantly enhance students' ability to organize and generate ideas, leading to improved essay writing skills. Students initially struggled with confusion and resistance but gradually showed progress in writing cohesively and coherently. The study also highlights the limitations of the current examination system, which favors memorization over creative writing. Despite challenges in classroom management and the need for better time efficiency, the research concludes that mind mapping and group discussions are effective tools in fostering student engagement and improving writing skills. The study underscores the importance of creating a supportive and interactive learning environment to achieve better writing outcomes.

Keywords: Mind Maps, Group Discussions, Essay Writing, Writing Strategies, Secondary-Level Students

1. Introduction

Writing is a highly complex language skill since it requires bringing together many sub-skills like symbolic understanding, alphabetic principle, memorisation of letters, visual discriminations, sound-symbol connection, linguistic comprehension, punctuation, planning, organizing, and many more. It serves as a tool for sharing information, messages, ideas, or thoughts in grammatically correct sentences. According to Pandey (2020), the act of writing holds a central position in academic pursuits, serving as a vital indicator of societal development in contemporary times. The cultivation of proficient writing abilities among students is of paramount significance, providing them with a means to articulate their thoughts and emotions effectively to achieve their objectives. "Writing emails, commercial letters, reports, memos, notes, and minutes of meetings are part of modern academic and corporate life. Thus, writing is a key feature of students' life" (Pandey, 2020, p. 257). Rooted in oral language foundations, writing assumes a distinctive role with its own set of purposes, forms, and functions, making it an integral component of communication. Acknowledged as a challenging and intricate task, writing skills are considered essential in the realm of effective communication (Graham et al., 2005). Regarding the complexity of writing and the importance of learning to write, Hyland (2003) stated that:

Few L2 writing teachers now see writing only as surface forms. But it is equally helpful to see language as irrelevant to learning to write. Control over surface features is crucial, and students need an understanding of how words, sentences, and larger discourse structures can shape and express the meanings they want to convey. Most teachers,

therefore, include formal elements in their courses, but they also look beyond language structures to ensure that students don't just know how to write grammatically correct texts, but also how to apply the knowledge for particular purposes and contexts. (p. 5)

Effective writing skills enhance a person's ability to communicate messages and ideas clearly to a far larger audience than through face-to-face conversations. Writing is an important language skill frequently used in people's day-to-day lives for writing applications, messages dissemination of research results, and so on. Writing is more important for students as their whole academic achievements are evaluated through writing and students are asked to be involved in several writing tasks during academic programmes like essay writing, letter writing, story writing, writing biographies, advertisements, applications, and reviews. Among these writing genres, essay writing has greater importance in academic sessions because essays are frequently asked in all kinds of examinations in Nepal than other forms of writing. For Nepalese students, writing development is a foremost necessity due to the value given to the writing-based examination system. However, we can find that Nepalese students have poor English writing skills. Similarly, students use inappropriate colloquial language, incorrect sentence structures and wrong word order. In this situation, students need more practice and should follow strategies to master them.

There are a number of strategies that learners can adopt for better writing. However, all the strategies cannot contribute equally in writing. Therefore, learners should adopt effective strategies to improve their writing skills. Several research studies have been carried out regarding strategies to improve writing skills. Rustler and Buzan (2012) argued that "the mind map is a visual technique for structuring and organizing ideas which is easy and initiative to generate ideas and information processing". Likewise, Larasanti and Marlina (2019) stated "The alternative technique that can be applied for writing activity is buzz group". The buzz group is the group of people who make a humming sound like a group of insects while working. The researchers claim that group discussion and mind mapping are the most effective strategies for any genre of writing. Group discussion is one of the best ways to generate plenty of ideas on a particular topic and mind mapping techniques help to present these ideas in an organized form, empower learners to better comprehend the concept, and provide instructions for writing which definitely help students to improve their essay writing skills.

Essay writing is a commonly practiced school assignment and a part of standardized tests in many cases. Many competitive examinations in Nepal include it to test students' ability to express their ideas and beliefs on a particular topic in a logical manner. It has become a part and parcel of many schools and college entrance examinations. On tests, choosing the correct type of essay to write in response to a writing prompt is key to getting the question right. Despite their rigorous study and practice in essay writing, we can see the students' poor performance.

Students do not think about the necessity of pre-writing strategies during the writing process. And they cannot perform their best because of insufficient writing skills. Some students are even scared to write in English as it is their target language. However, students' performance is examined by their writing skills in our educational system. In this research, an attempt will be made to analyse how group discussion and mind-mapping strategies can be useful in the development of essay writing.

This article addresses a gap in the current education system in Nepal, where students often struggle with essay writing due to inadequate strategies and poor organization of ideas. By exploring the effectiveness of mind mapping techniques, the study not only provides actionable insights for improving students' writing skills but also highlights the limitations of traditional examination systems that prioritize rote memorization over creative and structured writing. Thus, article aims at exploring the effectiveness of mind mapping strategies in improving writing skills in English among secondary-level students in Nepal and identifying the specific challenges these students face, such as issues with grammar, vocabulary, organization, and time management.

2. Theoretical Framework

2.1. *Effective Writing*

Writing communicates ideas and views with signs and symbols. In most languages, writing is a complement to speech or spoken language. Writing is concrete since it renders language visible. Writing is an important skill in language because good writing allows a person to communicate his/her message with clarity and ease to a longer audience than through face-to-face or telephone conversations. Writing provides learners with physical evidence of their achievements and can measure their improvement. Highlighting the features of good writing, Hedge (1988) stated that

Effective writing requires a number of things: a high degree of organization in the development of ideas and information; a high degree of accuracy so that there is no ambiguity of meaning; the use of complex grammatical devices for focus and emphasis; and sentence structures to create a style which is appropriate to the subject matter and the eventual readers. (p.8)

Writing is a productive skill of language through which people express their ideas and produce a sequence of sentences arranged in a particular order. Writing makes human civilization, culture, religion, social norms and values, literature, and many more things alive for years from generation to generation. Writing is the art of using language. It is clearly and explicitly a very complex task whether it is a first language or a second language. In this regard, Heaton (1975) mentioned that "writing skills are complex and sometimes difficult to teach, requiring mastery not only of grammatical and rhetorical devices but also of conceptual and judgmental elements" (p.135).

Writing is not only the concrete realization of language or the script of the language, good writing also requires correct vocabulary, grammar structure, cohesion and coherence of ideas, and many more. Good writing skills are very important not

only for academic purposes but also for many professions. Learning to write is a difficult and lengthy process that requires more practice and hard work for the better. However, the good news is that writing skills can be enhanced through several strategies. According to Bukhari (2016), writing is of four types in terms of its purpose. They are expository, descriptive, persuasive, and narrative. All writing activities help students to share their ideas, express feelings and thoughts, convince other people, and discover and articulate ideas.

2.2. *Essay Writing as a Process*

Generally, an essay generally is a piece of writing that gives the author their own argument. Essays have traditionally been classified as formal and informal. Formal essays are academic in nature and tackle serious topics whereas informal essays are more personal and often have humorous elements. Writing an essay is a creative process that has no rigid format of writing and should not be confined within boundaries. Its format differs from person to person. However, an essay generally includes an introduction, body paragraphs: thesis statements, and conclusion parts. According to Pirie (1985), "A critical essay should not just express an opinion. It must advance an argument" (p. 53). Pirie (1985) in his book "How to Write Critical Essays" has presented the process of writing an essay. The process entails: Facing the question, researching an answer, planning an argument, and making a detailed case, style and presentation. Old Pueblo Academy (2012) has presented the following key features of a good academic essay: Complexity, formality and precision, objectivity, explicitness and accuracy, and hedging and responsibility. Within an academic essay, a writer must make clear the strengths of the claims they detail within their essay. It is important for the writer to state their intention of arguing their point and writers need to be responsible for representing their argument.

Learning to write is a basic necessity for students, especially at the school level. Students are asked to write various assignments and papers in examinations containing essay writing. For many students, each essay brings with it the challenge of making it a little bit better than the last one. Students may face a number of difficulties in essay writing, among them the most common is getting stuck in a rut of repeating the same formula and sentence pattern each time. In accordance with Oxford Royale Academy (2017), the five practical tips for writing better essays include; reading other people's essays, building your vocabulary and using it properly, elevator pitching your essays, telling the reader what other people say and syntax, punctuation, and tone of voice.

2.3. *Writing Strategies*

Strategies simply refer to a plan of action designed to achieve a long-term or overall aim. And writing strategies in this sense are plans for our writing i.e., what and how we are going to write. In other words, writing strategies are the tools that enhance writing skills. Strategies help to boost students' academic writing skills. The concept of learning strategies has also been demarcated as the steps taken by students to enhance their own learning (Bai, 2016).

Hedge (1988) has presented different strategies to improve students' writing from elementary to advanced levels. They are designing a grading scheme, conferencing, raising awareness about writing, correcting their own work, writing in a group, pair-working, reformulating and negotiating a reformulated script. Several research articles have been published regarding writing strategies and enhancing writing skills which suggest several strategies as writing strategies. Some of the strategies to enhance students' writing skills are brainstorming, mind mapping and group discussion, peer review, parallel writing, extending vocabulary, and so on.

2.4. *Mind Mapping*

Mind mapping is a tool used for making notes and brainstorming. The mind map was first introduced by British author and television personality Tony Buzan, as the use of diagrams that visually "map" information using branching. Later it was developed by learning experts in the 1970s similar to radial structure to concept maps. According to Buzan and Buzan (2006), the mind map is a strong graphical technique which aims to utilize the brain with its full capacity. Bukhari (2016) in his article entitled "Mind Mapping Techniques to Enhance EFL Writing Skill" has suggested mind mapping as one of the writing strategies. A mind map involves writing down a central theme and thinking of new and related ideas that come from the center. By focusing on key ideas written down in our own words and looking for connections among them, we can map knowledge in a way that will help us to understand and retain information better.

Mind mapping was developed as an effective method for generating ideas through association. Mind mapping converts a long list of monotonous information into a short, memorable and highly organized diagram that works in line with the brain's natural way of doing things. In order to create a mind map, we usually start in the middle of the page with the central theme and from that point onward we work in all directions to create a growing diagram composed of keywords, phrases, concepts, facts and figures. The mind map is also considered a spider diagram which has a natural organizational structure. Having an organized display of information from the outset of the writing process helps students, as it is more easily converted into a draft.

Mind mapping can be done in various ways. Students can follow their own process of mind mapping. However, the basic process is placing the topic at the center, keywords of topic sentences in its surroundings and then supporting ideas. Adams (2023) in his online article mentioned the following process of using mind maps: 1) Set up your supplies 2); Write down your topic in the center of the page; 3) Write down your associations; 4) Draw empty bubbles if you are stuck and 5) Sketch, don't draw.

Mind mapping increases creativity and productivity in students as it serves as an excellent tool to generate more ideas, identify relationships among different data and information and effectively improve memory and retention. It also helps in taking notes in a lecture and listening for the most important points, helps to brainstorm about the ideas that we already know

about, to plan the early stages of an essay, to organize the ideas and information by making it accessible in a single page and to stimulate creative thinking and solutions to problems. Mind mapping does not have the benefits of visualizing the relationship among ideas and encourages students to group certain ideas together as they proceed, displaying the creative pathway and directions for writing and giving an overview of a large subject or broad topic, allowing us to represent it in a more concrete form.

2.5. Group Discussion

Group discussions are creative and interactive strategies that stimulate reflective thinking among members. Group discussions are activities in which a small number of people meet face-to-face and exchange and share ideas freely. The aim of any group work is to share ideas on a particular topic and reach a decision on a common issue. In the case of a classroom, we can either make small groups by dividing students or a whole class for group discussion. In a group discussion, an individual's thought process is influenced by the views and opinions of other members. A successful group discussion involves both listening and speaking where all participants are allowed to present their views freely. Xin and Liming (2005) highlighted the benefits of group discussion in students writing through their research "Group Discussion and EFL Writing". Regarding the importance of group discussion in writing, LeFevre (1986) asserted that "Invention...is, I think best understood as occurring when individuals interact socially with socio-culture in a distinctive way to generate something" (p.33). This means that the act of writing is not successful until it communicates and becomes part of a specific communal activity.

Like mind mapping and brainstorming, group discussions also enhance students' critical thinking abilities. Group discussions provide different approaches for solving problems, a deeper understanding of the topic or subject, boosts students' confidence in speaking and helps students to reach a particular decision in any problem.

In a classroom setting, group discussions can be conducted in various forms like small groups, large groups, and whole class discussions. It will be determined by the setting of the class and the nature of the discussion topic. Similarly, we should conduct the discussion considering some basic procedures.

A number of studies have been carried out in the field of techniques for developing writing skills. Regarding writing development, Utami et al. (2012) carried out action research entitled "Improving Students' Writing Skill Using Four Phase Technique." This article describes classroom action research held in writing class using the four-phase technique to improve 11th-grade students' writing skills and improve classroom situations. The research was conducted in two cycles including four stages in each cycle i.e., planning, implementing, observing and reflecting. The research data were collected by using observation, interviews, documents, photographs and tests. The data were analysed through descriptive analysis which consists of assembling, coding, and comparing data and interpreting and reporting the outcomes for the qualitative data and descriptive statistics for the quantitative data. The research findings show that the four-phase techniques can improve students' writing skills and classroom situations. It shows that there is improvement in students' writing before and after the research.

In a study conducted by Bukhari (2016) titled "Mind Mapping Techniques to Enhance EFL Writing Skills," the focus was on identifying effective mind-mapping techniques to augment the writing proficiency of English as a Foreign Language (EFL) learners. The research involved a sample of 40 intermediate learners and 20 English language teachers from an English language institute. The findings of the study revealed that learners who received instruction in mind-mapping techniques demonstrated improvements in various aspects of their writing, including cohesion, coherence, content paragraph structure, and length. The results underscored the positive impact of the hierarchical structure inherent in the mind-mapping techniques employed during the pre-writing phase on enhancing the writing skills of EFL learners.

3. Research Questions

In the case of community schools in Nepal, this problem is very apparent. Sometimes, we find that students of secondary level do not seem to have the knowledge of essay writing components. The major problems in essay writing are inadequate knowledge of grammatical use, lack of vocabulary, poor arrangement of ideas and wrong spelling. Furthermore, they also have problems with the semantic and pragmatic use of language. Thus, the study addressed the following questions:

Q1. How do mind mapping strategies influence the organization and coherence of essay writing among secondary-level students in Nepal?

Q2. What problems do Nepalese Secondary level students face while writing essays in English?

4. Methods and Materials

4.1. Research Models

The study adopts an action research design. Action research has an applied focus (Creswell, 2016, p. 576) and provides an opportunity for educators to reflect on their own practice. Kemmis and McTaggart (1992) assert that action research serves as an approach focused on enhancing education through deliberate changes and subsequent learning derived from the consequences of those changes. We use action research when we have a specific educational problem to solve. As posited by Gay et al. (2017), action research in the field of education refers to a deliberate and systematic inquiry undertaken by educators, including teachers, principals, school counselors, and other stakeholders within the teaching-learning environment. This inquiry aims to collect information pertaining to the operational dynamics of their specific schools, the methodologies employed by teachers, and the learning processes of students.

Action research design in the realm of education involves the systematic collection of information concerning existing educational programs and their outcomes. This process entails the analysis of gathered information, the formulation of a plan aimed at enhancement, the implementation of the plan, and subsequent data collection to assess changes. The overarching objective of the action plan is the amelioration of educational programs within the school. Generally, four distinct types of action research exist: individual research, collaborative research, school-wide research, and district-wide research. Each type is characterized by its unique approach and scope, contributing to the overall improvement of educational practices.

4.2. Participants

The data of the study was collected from 25 students of a community school in Gandaki Province in Western Nepal. The students were 10th graders. I used a convenience sampling procedure for my study. All the students from grade 10 including 13 girls and 12 boys were selected to collect the information and to analyze their essay writing skills and the difficulties they faced in writing essays.

4.3. Data Collection Tools

The study aimed at exploring the effectiveness of mind mapping in essay writing and finding the problems students come across in writing a composition. Using an action research design, data were collected from 25 tenth-grade students through observation checklists, tests, and unstructured interviews. The observation tool was used to observe their problems in writing and also the improvement in their writing after implementing the strategies. I made notes and wrote down all the activities I observed.

4.3.1. Item Tests

I conducted several tests, pre-tests to find the problems in students' writing, progressive tests to observe the progress in their writing and post-tests to find out the effectiveness of implemented strategies in writing.

4.3.2. Unstructured Interview

These were used to know the students' perceptions towards the strategies. It helped me to know if students use group discussion and mind-mapping techniques as supportive tools to improve their writing.

4.4. Data Collection Process

The five steps of action research presented by Nunan (1992) are Initiation, preliminary investigation, hypothesis, Intervention and evaluation. Action research broadly has four phases in a cycle, and different scholars have come up with several different ways. These four phases are planning, acting, observing and reflecting. And I carried out my individual action research based on these phases.

4.4.1. Planning

To carry out this research study, firstly, I planned the design of the research to suit my research topic and its objectives. Then, I identified the research site, population and the procedures of data collection. Similarly, I set up the tools that I used to collect the data. I prepared the lesson plans for my research since the design I had selected for my purpose was action research.

At the very first stage, my plan was to identify the problems in students' writing by conducting a pre-test. My focus here was to implement the group discussion and mind mapping techniques to overcome the problems in students' writing and to evaluate its effectiveness through progressive tests and post-tests. I selected a community school in Gandaki Province, Western Nepal, to conduct my research as I wanted to conduct the research in a government school in a rural area. I collected the topics of essay writing from an English book for grade 10.

4.4.2. Action

Actions are the activities that a researcher implements to overcome problems. In this stage, I implemented a series of activities for students to improve their writing. After finding the problems in students' writing through the pre-test, I implemented strategies, namely, group discussion and mind mapping to overcome the problems. To find out the improvements in students' writing, I conducted six progressive tests. Similarly, I conducted two post-tests to evaluate the effectiveness of these strategies. I organized the groups of students in different ways according to the first letter of their names, according their roll numbers, by mixing up the average, weak, and smart students. Likewise, I conducted games that facilitated their learning.

4.4.3. Observation

This phase involved the systematic observation of the effects of the actions. During the phase of data collection, I employed tools characterized by both attentiveness and impartiality to gather information pertaining to the occurrences within the classroom.

I carried out about nine tests throughout the study. Through the pre-tests, I observed their initial stage of writing including knowledge about the subject matter, grammatical knowledge, and their choices of vocabulary. Likewise, the progressive tests taken at different times helped me to observe the students' progress and their changing attitudes towards writing strategies. Then, I observed the effectiveness of writing strategies through the post-tests. Besides tests, I used an observation checklist and unstructured interviews to observe the progress throughout the study.

4.4.4. Intervention

In action research, intervention is an important phase of research. The interventions are 'critically informed' as the researcher questions and assumes the current situation and plans new and alternative ways of solving the problems. This is a phase where I explored new things which determined the further strategies of the study.

I employed group discussion and mind-mapping strategies in the classroom every day. In the beginning, students were not interested in working and contributing to the group. Gradually they started getting involved in the groups and showed their interest in mind-mapping activities. The techniques became tools to lessen grammatical errors in the compositions. To address

the initial problems of disinterest, I allowed my students to do self-study to expand their horizons of knowledge on particular topics. I asked them to make it a habit to read different reading materials in groups. Similarly, I provided some grammar classes and suggested some grammar books to help them address their grammatical errors.

4.5. Reflection

At this point, the researcher reflected and evaluated the effects of the action in order to make sense of what had happened. Through, reflection I decided to carry out further cycles of action research which helped me to find an alternative for group discussion. However, this study reflected that group discussion and mind mapping facilitated students to improve their essay writing.

5. Results

This study was conducted to find students' problems in compositions especially essay writing since essay writing is considered an important component at the secondary level in Nepal.

5.1. Planning

As I planned, I spent my first day in the class introducing myself, the lesson title, and its purpose, and had some conversations with the students. Then, on the second day of the class, I conducted a pre-test. The main purpose of conducting a pre-test was to find out the problems in students' writing. I asked them to write an essay on "The Role of Computers in Education." They were given 45 minutes to complete the essay. But the students did not finish it on time. Time management was one of the major problems for them while writing. The other major problems were inadequate linguistic proficiency (including command over grammar and vocabulary), writing anxiety, poor organization of ideas, and use of incorrect structures and organization. I found that the essays followed unusual formats and structures. Some students wrote it in one paragraph and other students completed their essays in two paragraphs. Some of them even wrote in bullet points. Similarly, the length of the essay was too short containing only 50-60 words. The paragraphs were not well organized. I could hardly find the main ideas, topic sentences and supporting details in their essays.

Students used incorrect words in their writing. Their compositions consisted of the use of spoken and informal forms of writing. They used colloquial expressions and informal forms of language in their essays. Many used expressions like 'I really enjoy visiting Durbar Square'. Repetitions and placement of the same ideas at different junctions of paragraphs were problems I observed. Grammatical errors included errors of different forms like subject-verb agreement, forms of singular and plural, spelling errors and punctuation errors. The analysis of learners' pre-test writings revealed problems in grammar, vocabulary, spelling, punctuation, word forms and word order. The highest number of errors was made in grammar aspects.

5.2. Actions

On the third day of my class, I divided the students into groups each group containing five members. I wrote the topic 'The Role of Computers in Education' on the whiteboard. Then, I asked students to have discussions in the group regarding the topic and list down the ideas in the notebook. I asked each group to share points they had noted down, and I listed them on the whiteboard.

On the fourth day, I revised the group discussion strategy which was taught in the previous class. I taught my students how to draw a mind map. I presented an example with an illustration of a mind map on the topic 'My Aim in Life' at first. Afterward, I asked them to develop mind mapping based on the ideas which were listed in a previous class. I facilitated them as they were generating and writing the ideas. After completing the mind maps, they were asked to develop essays with the help of the mind maps they developed. I repeated the actions on different topics for 3-4 days to practice the group discussion and mind-mapping strategies. Sometimes, I asked students to list out the information about a particular topic individually. They hardly could write 9/10 sentences. But when they discussed the same topic in groups, they were able to come up with two-page-long ideas. I implemented the group discussion strategy to brainstorm ideas. After the group discussion was done and they prepared the list of information, I used to dissolve the group and asked them to develop the mind maps into essays individually with the list of information or ideas they had collected through the group discussions. I formed the group by using different techniques such as groups according to the initial letter of their names according to their roll numbers and by mixing up the average, weak, passive and smart students. The passive and less confident students seemed more motivated to learn through group discussion. After grouping them I gave different topics for writing in groups. Then, I told one group to present their essays, and other groups to observe their presentations and provide feedback. Similarly, I provided individual work in the classroom. I provided a topic for all students and asked them to develop mind mapping in their exercise books.

Apart from group discussion and mind mapping, I managed to organize a game in the class twice. As a part of a game, I wrote: "My school" on the whiteboard. Each student had to write a sentence about the topic one by one. Students were not allowed to tell the idea already mentioned. The reason behind involving the students in the game activities was to enable them to learn vocabulary and generate ideas on a particular topic in an entertaining way.

5.3. Progress Tests

I observed students' progress in essay writing through progressive tests. While I was checking the first progressive test paper, I observed that most of the essays were in the correct format. Students were aware of the nuts and bolts of an essay such as the introduction, body paragraphs and concluding paragraphs in the essay writing process. All the students tried to mind map the ideas before writing, but some students could not make the complete mind map because of the lack of ideas and information on the given topic.

First, the progressive test did not show remarkable improvements and most of the students again included irrelevant information and repetition of the ideas. Many students committed some grammatical and punctuation errors with incohesive and incoherent paragraphs. However, some students were getting the ideas clearly. I found some changes in their writings. They were able to differentiate the main ideas and supporting information and develop cohesive and coherent paragraphs. They avoided the repetition of ideas in their writings and also slight improvements in their grammar and choice of vocabulary could be noticed.

The first progressive test encouraged me to continue my actions. I again engaged students in the groups and taught them to mind map the ideas. Gradually all the students seemed to be clear about my ideas and they started to show changes in their writing. After they were taught to use the mind-mapping technique time and again, they were able to organize the ideas in their essays. After they learned about mind mapping, one of the students reported, "Now, I am clear about how to draft an introduction, develop body paragraphs and write conclusions of an essay. And I also can find main ideas and supporting details." Student 2 said, "Mind mapping helps me to avoid the repetition of the ideas but I am still confused about linking the ideas in order."

However, on other days, in every progressive test, I gradually found improvement in their compositions. Students started to write lengthy essays with several paragraphs. Students started to brainstorm ideas and develop the mind map before writing the essays. They started to separate the paragraphs including the main ideas and their supporting details. Most of the students improved grammar, vocabulary power and punctuation errors in their essays. All the essays were acceptable and correct in formats with cohesive and coherent paragraphs. Almost all the students were aware of the repetition of the ideas. But still, they were taking a lot of time to complete their tasks. Then after, I focused on time management. I used to provide topics for essay writing to complete within a certain time. Students were given only 5 minutes to prepare mind maps and 30 minutes to complete their essays.

I used an observation checklist to keep students' records. In addition, my intention was to know to what extent and how they dealt with the strategies. Students' performances were recorded during the observation in order to increase the validity of the data. After observing this, I realized that all the students did not have a problem with group discussion and mind mapping strategies, even though some students were confused and seemed uninterested in the beginning. They practiced mind maps for every new topic of essay writing. In an informal interview, one of the students said, "Yes, when I design mind mapping, I get a chance to think more about the topic. And I can include all the information in order and can link the supporting details with main ideas". Similarly, I managed to conduct unstructured interviews during the study randomly. I did it to analyze the students' changing attitudes towards the strategies.

5.4. Mind Maps as Intervention Strategies

When I combined the group discussion and mind mapping as strategies to generate ideas and to make a roadmap of writing, they worked greatly to improve students' writing. But when I found my class was noisy, more time-consuming and difficult to manage, I promoted self-study. I provided a particular topic to the students and asked to them read different materials like newspapers, journals, books and websites at home. The next day, they were asked to brainstorm ideas individually on the same topic and to develop the mind map. While doing this, I found that students were writing more information about the topic and their vocabulary power also improved. This technique helped me to save time in the classroom and helped to effectively manage my class.

6. Discussion

6.1. Effectiveness of the Mind Mapping Strategies

In the beginning, I found several errors in students' assignments. They committed similar kinds of errors. However, the students gradually improved their essay writing skills after practicing the strategies time and again. Later on, I found fewer errors in their assignments and test papers in comparison to the earlier days.

I conducted post-tests to evaluate the effectiveness of writing strategies that I had implemented in the classroom. I found improvements in students' essays. They came up with acceptable formats including an introduction, body paragraphs and conclusion. The sections of the essays were well crafted. The length of the essay also increased. Their compositions were well organized with main themes and supporting details. Students used correct word forms, grammatically correct sentences, and correct use of punctuation marks in comparison to previous works. They avoided the informal style of writing and used formal language. My students improved the organization and development of ideas in their writing. They completely avoided the repetition of ideas. They were able to write lengthy essays with more information in their writings. They also completed their work within the given time. This showed that mind mapping as a writing strategy contributed more to generating ideas and developing ideas in organized ways.

6.2. Challenges in the Implementation Phase

On the third and fourth day of my class, I taught my students about mind-mapping strategies and how these strategies are helpful in writing essays. They felt confused and difficult to create mind maps. Unfortunately, things did not work quite well as I had expected. It was very difficult for me to manage the students in the class while dividing the group. Students used to rush around the class excitedly. They refused to be in the group if their best friends were not there. The class used to be noisy during class discussions. Sometimes, it was very difficult for me to calm them down and we could not complete the task on

time. I noticed that conducting group work in day-to-day classes is time-consuming. However, after grouping, they were cooperative and the class used to be more interactive.

Classroom management was one of the principal problems I faced in the implementation phase. Good students used to complete activities faster and in smarter ways whereas weak and passive students used to delay the work and tried to escape from the tasks. Therefore, it was challenging for me to provide the activities according to the students' level, and engage all students in the activities. However, I did my best to manage the class, control the students' unnecessary activities and deliver my lessons. To increase their vocabulary power, grammar, spelling and knowledge on a particular subject, I used different materials and techniques like asking students to use dictionaries, reading newspapers, books and internet sources. Finally, I found the progress in students' writing and behavior in the class, which helped me to manage my classes in later days.

6.3. Improvements and Reflection

Throughout the completion of my action research, I noticed some improvements in students' writing and behaviors. These improvements were observed through unstructured interviews, observation checklists, classroom observation and tests. The changes and improvements noted after the implementation are explained below.

6.3.1. Change in Attitudes

Curiosity makes our brain more receptive to learning and makes learning more effective and enjoyable. Curious students not only asked questions but they actively sought out the answers. In the beginning, I found that the students were quite bored. They were confused regarding the strategies and they did not want to study. They used to be involved in talking with friends. However, once they became clear about the strategies and realized that they really helped them in their writing, they started to show an interest in learning. Participants' attitudes changed positively towards the strategies and they participated actively in the tasks. When I was able to arouse students' curiosity through mind mapping, they naturally got motivated to learn and dedicated to their writing.

6.3.2. Involvement in Interactive and Co-Operative Learning

In cooperative learning, students work together in small groups on a structured activity. They learn to work in a team. When groups are guided by clear objectives in numerous activities, their understanding level would improve. To create a more interactive environment, they should be provided more opportunities for practice.

When I was in the classroom, I found many students not working together with their friends because they were feeling scared to share their ideas in front of others. I understood their problems and divided the students into smaller groups and sometimes kept such students with their best friends. They performed their tasks in better ways than they did earlier. They started expressing their views, and ideas with each other on the given topic. Similarly, some students who had learned about mind-mapping techniques helped weaker ones. This activity really supported shy and slow students. This proves that mind-mapping strategies can enhance cooperative learning in the classroom.

6.3.3. Improvement in Writing

Mind-mapping strategies are beneficial strategies to improve students' essay writing skills. It helps in the writing process and provides students with opportunities to think. Students' mind mapping demonstrates their level of comprehension, so teachers will be able to identify students' prior knowledge and understanding from the assignments and materials.

The pre-test showed that they had a weak level of understanding and knowledge regarding writing skills. They used to think that practicing writing was just a waste of time. Just reading the texts and memorizing the information is enough to write an essay for the exams. But after knowing the basic skills of essay writing and how practice improves writing, I noticed their changed attitudes and behaviors about writing.

6.3.4. Cohesion and Coherence in Paragraphs

Mind mapping is a strategy for making a roadmap on a topic prior to writing. Students start with a topic at the center and write the main ideas around the topic linking with supporting details. It is a tool to facilitate learners to plan ideas in the pre-writing process. It is better to explore ideas and generate thoughts on the topic before writing. This will help to generate ideas on the main themes.

Before the experiment, I found poor organization of paragraphs. Their writings lacked a linkage of main themes and supporting ideas. They hardly used cohesive devices in their writings. After a lot of practice, they learned to correlate mind mapping in their writings. I observed the changes through progressive tests. Later on, students wrote organized paragraphs with the correct order of ideas. They started essays with well-crafted introductions consisting of body paragraphs starting with a topic sentence and supporting details. Their arguments in each paragraph were backed up with evidences. They used cohesive devices in their paragraphs. Students initially struggled with confusion and resistance but gradually demonstrated improved ability in writing cohesive and coherent essays.

6.3.5. Well-Organized Writing

In the beginning, students could not organize the ideas because they did not have a habit of mind mapping. After they practiced many times, their writing became more systematic. Later, they were able to generate ideas on familiar topics and organize them properly. They faced problems in the advancing phase, but the situation changed positively after getting more practice and more feedback. I made them practice sometimes individually and sometimes in small groups and pairs. They showed curiosity and took it positively, which led to positive results.

6.3.6. Improvements Observed

Students committed a number of errors in their first attempts. They committed grammatical errors, errors in spelling and punctuation. In the pre-tests of essay writing, the highest score was 7 and the lowest score was 2 out of 10. And the average

score was 4.9. More than 50 % of the students scored below 5 out of 10 in their pre-tests. After the implication of strategies, students gradually started to improve their writing. Progressive tests were conducted to observe their improvements and problems in their writing. When I conducted a post-test and analysed its score, I found remarkable improvement. The highest score of the post-test writing was 9.5 and the lowest score was 5 out of 10. Similarly, the average score was 7.5. And more than 80 % of the students obtained above 8 out of 10 in their post-tests.

6.3.7. Reflection

After the project, I realized how important it was to let the students be in the center of the class and just to be aware of their reactions to finding the solutions. At the same time, I knew more clearly about my roles as a teacher; an instructor, organizer, advisor, participant and sometimes just as a listener. Therefore, I managed to give students more chances to work out the problems by themselves and by being involved in group discussions. My students' problem was always my concern. This action research has enriched my teaching experience and made positive contributions to my professional career.

6. Conclusion

Mind-mapping strategies have proven to be effective tools in enhancing students' cognitive skills and aiding in information retrieval. Initially, students struggled with selecting appropriate words (nouns, verbs, and prepositions) in their compositions, maintaining subject-verb agreement, and choosing the correct tense and sentence structures. After conducting a study involving interviews, classroom observations, and tests, I concluded that these strategies significantly improved students' writing. Group discussions before writing helped students brainstorm ideas, while mind mapping enabled them to organize main themes and supporting ideas cohesively. The research found that these methods are more innovative and effective for brainstorming and linking ideas than traditional text reading. Additionally, these strategies increased student engagement in class, making them more active and interactive, despite initial confusion. While it was challenging to quantify the exact progress in writing, these activities built students' confidence and positively changed their attitudes toward writing. Unstructured interviews further supported the effectiveness of group work in fostering writing success. However, the study also revealed that the current examination system does not encourage creative writing, instead promoting memorization. Games motivated students to learn, leading even less motivated students to become more competitive and engaged in the classroom, thus creating a positive attitude towards learning. Nonetheless, the lack of a creative environment and proper strategies hindered students' writing performance and interest in essay writing.

References

- Adams, J. (2023). How to plan an essay using a mind map. WikiHow. <https://www.wikihow.com/Plan-an-Essay-Using-a-Mind-Map>.
- Bai, B. (2016). Writing strategies and strategy-based instruction in Singapore primary schools. Cambridge Scholars Publishing.
- Bukhari, S. S. F. (2016). Mind mapping techniques to enhance EFL writing skills. *International Journal of Linguistics and Communication*, 4(1), 58–77. <https://doi.org/10.15640/ijlc.v4n1a7>
- Buzan, T., & Buzan, B. (2006). The mind map book. BBC Active.
- Creswell, J. W. (2016). Educational research: Planning, conducting, and evaluating quantitative and qualitative research. Pearson Education, Inc.
- Gay, L. R., Mills, G. E., & Airasian, P. W. (2017). Educational research: Competencies for analysis and applications. Pearson.
- Graham, S., Harris, K. R., & Mason, L. (2005). Improving the writing performance, knowledge, and self-efficacy of struggling young writers: The effects of self-regulated strategy development. *Contemporary Educational Psychology*, 30(2), 207–241. <https://doi.org/10.1016/j.cedpsych.2004.08.001>
- Heaton, J. B. (1975). Writing English language tests: A practical guide for teachers of English as a second or foreign language (Longman Handbooks for Language Teachers). Addison-Wesley Longman Ltd.
- Hedge, T. (1988). Writing. Oxford University Press.
- Hyland, K. (2003). Second language writing. Cambridge University Press.
- Kemmis, S., & McTaggart, R. (1992). The action research planner (3rd ed.). Deakin University Press, Geelong.
- Larasanti, S., & Marlina, L. (2019). Using buzz group technique in teaching writing analytical exposition text for EFL students at senior high schools. *Journal of English Language Teaching*, 8(1), 13–21. <https://doi.org/10.24036/jelt.v8i1.103322>
- LeFevre, K. B. (1986). Invention as a social act: Studies in writing and rhetoric. Southern Illinois University Press.
- Nunan, D. (1992). Research methods in language learning. Cambridge University Press.
- Old Pueblo Academy. (2012). Types of essays for high school. OldPuebloAcademy.Org. <https://oldpuebloacademy.org/>
- Oxford Royale Academy. (2017). How to write better essays: 5 practical tips. Oxford Royale. <https://www.oxford-royale.com/articles/tips-techniques-essay-writer/>
- Pandey, G. P. (2020). Unpacking writing needs of Nepalese university students. *International Journal of Language and Literary Studies*, 2(2), 257–269. <https://doi.org/10.36892/ijlls.v2i2.275>

- Pirie, D. B. (1985). *How to write critical essays: A guide for students of literature*. Routledge.
- Rustler, F., & Buzan, T. (2012). *Mind mapping for dummies*. John Wiley & Sons, Ltd.
- Utami, F. S., Rais, D., & Setyaningsih, E. (2012). Improving students' writing skill using a four-phase technique. *Sebelas Maret University, Surakarta*.
- Xin, S., & Liming, Y. (2005). Group discussions and EFL writing. *CELEA Journal*, 28(5), 46–55.