OBSERVING REACTIONS OF STUDENTS LEARNING ENGLISH THROUGH CONCEPT MAPPING

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ABSTRACT

In a multilingual country like India, it is quite challenging to teach foreign language without influencing L1. There is quite change required in system to teach language skills like listening, speaking, reading and writing. There are various ways adopted in the field but somehow failed to achieve the goal. Hence, implementation of innovative and multidisciplinary approach in teaching English was the need of the time. After implementation of concept mapping, the reaction of the students was required to be observed and therefore, reaction scale was developed and implemented. The sample of 50 students from 9th standard was selected. The collected data were analyzed using chi-square analysis technique. The results of the interpretation were discussed. Overall, the effects of concept mapping on learning English grammar were observed through the reaction scale.

Keywords: *Reactions, learning, Concept, Concept Mapping*

1.0 INTRODUCTION

In the field of education, there has been a continual pursuit of effective teaching methods. Educators and researchers have invested significant efforts in deciphering the complexities of how students learn and in finding approaches that improve comprehension and knowledge retention. One promising method that has gained recent attention is the use of concept mapping in teaching. Concept mapping involves visually representing knowledge by connecting core ideas and their relationships, offering the potential to create more meaningful learning experiences for students.

This research paper aims to investigate how students react to and engage with concept mapping as an innovative teaching approach. Concept mapping has the potential to transform traditional teaching methods by facilitating a deeper understanding of complex subjects and stimulating critical thinking. To fully harness its educational benefits, it's crucial to understand how students respond to concept mapping in various learning settings.

Throughout this research endeavor, I explored the diverse aspects of concept mapping. This exploration encompassed its theoretical foundations, practical applications in classrooms, and the cognitive processes it triggers in students. Additionally, I examined potential obstacles and challenges that students encounter when using concept mapping as a learning tool. By shedding light on these dimensions, the goal was to offer valuable insights to educators, researchers, and policymakers regarding the effectiveness of concept mapping as a teaching strategy and how it can be optimized to improve learning outcomes.

In today's information-rich era, characterized by the need for adaptable, lifelong learners, understanding students' reactions to concept mapping is of paramount importance. By clarifying the intricacies of this educational approach, the study aims to contribute to the ongoing conversation on innovative teaching methods and, ultimately, empower educators to create more engaging and effective learning environments for their students.

2.0 OBJECTIVE

- To develop reaction scale on learning English through concept mapping.
- To observe the reaction of students on learning English through concept mapping.

3.0 THEME

English Language Teaching in India has a vast contextual history. There are various approaches and methods evolved and spread around the world for teaching and learning of English. They were successful and impactful at the time. But the reason behind its decreasing effects were not to match with the need of time. If talk about specific in Indian context, there is heterogeneous classroom where variety of students are found. Their need in the classroom is different. Their learning strategy is varied. In most of classroom, teacher-centric approach is observed. Hence, the students feel ignored and outstared. This impacts their learning, especially in language learning. As a response to it, every teacher should follow the method called needs analysis to know the needs of the learners and accordingly choose the method of teaching i.e., concept mapping, for teaching English. Concept mapping was developed by Prof. Joseph Novak [5] [6]. He experimented on students to find out how they learn different subjects. He found that concept mapping helped students to understand various concepts using their prior knowledge and hence develop concept maps which develops their knowledge of the subject area.

Reaction scale plays a vital role knowing the response of the students regarding any particular event. Their opinion matters a lot as they are beneficial for whom such innovations are taken place. Hence the effects of any instrument in the classroom must be checked by its users.

Here, the concept mapping strategy was adopted to teach English grammar to the students of nineth standard. They were taught English grammar through implementing concept mapping strategy and implement the reaction scale to observe the reaction of the students regarding use of concept mapping to learn English grammar.

4.0 RESEARCH QUESTIONS

➢ What are the reactions of students learning English through concept mapping?
➢ Does concept mapping help students in learning English?

5.0 SAMPLE

Sample of the study was selected by convenient sampling method as discussed by Best and Kahn [4]. In this study, an investigation was conducted involving 50 students from Government Secondary School, Mudhyari. The selection of these participants was purposefully made to ensure representation that reflects the demographic diversity of the student population in this educational institution. Government Secondary School, Mudhyari, was chosen as the research setting due to its significance within the local community and its diverse student body. The inclusion of 50 students from this school allows for the collection of valuable insights into various aspects of the research inquiry while ensuring a broad spectrum of perspectives and experiences. This carefully selected sample forms the foundation of the research, enabling meaningful conclusions to be drawn and contributing to the understanding of the issues under investigation.

6.0 DEVELOPMENT OF REACTION SCALE

Student feedback plays a pivotal role in enhancing our understanding of various aspects of educational materials, encompassing content comprehension, structural elements, and grammatical correctness (Diab, 2005 [1]; Ferris, 1999 [2]; Heift, 2010 [3]). In order to gain deeper insights into the genuine reactions and responses of the participants in the experimental group, we developed a specialized tool known as the "Reaction Scale." This scale comprises a total of twelve distinct statements, and participants were instructed to indicate their agreement or disagreement by marking the corresponding checkbox for each statement. The researcher opted for a five-point scale format during the creation of this reaction scale, allowing participants to express their responses with varying degrees of intensity. The reaction scale was structured into different components, each containing a specific number of statements. The details of the components and the number of statements within each component are provided below.

6.1 Components of Reaction Scale

Sr no	Components	Number of statements
1	Knowledge of Grammar	5
2	Environment of the Classroom	7
Total		12

Table 1- Components of Reaction Scale

7.0 DATA COLLECTION

In the pursuit of illuminating the impact of concept mapping as a pedagogical tool in the realm of English language instruction, an essential facet of the study involved the meticulous collection and subsequent analysis of invaluable data. To attain a comprehensive understanding of the students' reactions and responses following the incorporation of concept mapping in their learning experience, the researcher strategically administered a carefully constructed "reaction scale" at the conclusion of the educational intervention.

The reaction scale, a methodologically sound instrument tailored to assess student feedback, was thoughtfully designed to capture the subtleties of their responses, thereby affording an intricate glimpse into their educational journey. Each student was entrusted with this tool, empowering them to articulate their sentiments and appraisals with clarity and precision. By harnessing the rich data obtained through this instrument, the researcher sought to gauge the efficacy of concept mapping as a means to enhance English language acquisition.

To rigorously scrutinize and extract meaningful insights from the wealth of data collected via the reaction scale, the researcher employed the chi-square analysis technique—a statistically robust approach renowned for its suitability in exploring associations within categorical data. The adoption of this analytical method ensured the integrity and validity of the findings, allowing for the drawing of robust conclusions regarding the impact of concept mapping on student perceptions and experiences. In the following sections, a comprehensive exposition of the findings is presented, shedding light on the transformative potential of concept mapping as a pedagogical tool in the realm of English language education.

8.0 DATA ANALYSIS AND INTERPRETATION

Sr no.	STATEMENT	SA	A	N	D	SD	X^2 value
1	This Programme increased the conceptual knowledge of English Grammar.	46	3	1	0	0	**162.6**
2	Varied Parts of Speech and its types were being understood through the Programme.	44	3	0	3	0	**145.4**
3	Learned to use articles and its types in the sentences through this programme.	37	8	3	1	1	**94.4**
4	I understood different tenses and learned to frame meaningful sentences.	35	11	1	0	3	**85.6**

5	I described the relationship between varied concepts with appropriate words.	40	4	2	2	2	**112.8**
6	I enjoyed a lot doing Concept Mapping.	40	5	2	1	2	**113.4**
7	I worked with different classmates in doing Concept Mapping.	42	4	3	1	0	**129**
8	I completed vary activities successfully being a part of group.	41	5	2	0	2	**121.4**
9	I completed varied Concept Maps on English grammar points by helping each other.	44	3	2	0	1	**145**
10	I didn't feel bored drawing Concept Map and doing different activities hand in hand.	41	5	2	1	1	**121.2**
11	The classroom environment was active because of Concept Mapping strategy.	41	4	2	2	1	**120.6**
12	I enjoyed learning English.	43	3	0	1	2	**138.3**

Table 2 – Data Analysis and Interpretation of Reaction Scale

8.1 Interpretation

Statement 1, regarding the program's impact on conceptual knowledge of English Grammar, showed a significant difference in responses with a calculated chi-square value (162.6). The strong agreement from 46 participants and agreement from 3 participants suggested a positive impact on conceptual knowledge. The absence of disagreement or strong disagreement responses further supported the program's effectiveness in increasing conceptual knowledge.

Statement 2, concerning the understanding of varied Parts of Speech and its types through the program, revealed a significant difference in responses with a chi-square value (145.4). Strong agreement from 44 participants and agreement from 3 participants indicated improved understanding. The absence of strong disagreement responses and only 3 disagreements further supported the program's effectiveness in this regard.

Statement 3, focusing on learning to use articles and their types in sentences through the program, displayed a significant difference in responses with a chi-square value (94.4). The majority of respondents strongly agreed, highlighting the program's effectiveness in teaching the usage of articles and their types. However, a few neutral, disagreement, and strong disagreement responses suggested potential areas for modification.

Statement 4, regarding the understanding of different tenses and the ability to frame meaningful sentences, showed a significant relationship between the statement and responses with a chi-square value (85.6). A substantial number of respondents strongly agreed, and others agreed, while only a few responded neutrally, disagreed, or strongly disagreed. This indicated the program's significant help in understanding different tenses and framing meaningful sentences.

Statement 5, addressing the ability to describe the relationship between varied concepts with appropriate words, exhibited a significant difference in responses with a chi-square value (112.8). A majority of respondents strongly agreed and agreed, demonstrating their ability to describe these relationships effectively. Only a small number disagreed or strongly disagreed, indicating some limitations in the program's impact on this aspect.

Statement 6, regarding participants' enjoyment of Concept Mapping, revealed that a significant number strongly disagreed, while a few agreed, indicating that Concept Mapping activities sparked strong opinions and disagreements among respondents. This suggests that participants genuinely found these activities enjoyable.

Statement 7, focusing on collaborative work in Concept Mapping, showed a positive perception of working with diverse peers, with a majority strongly agreeing and agreeing. Notably, no strong disagreement responses were recorded, indicating that the collaborative approach to Concept Mapping was generally well-received.

Statement 8, related to successful completion of group activities, exhibited a positive outlook on group collaboration. Most respondents strongly agreed, with additional agreement, and no disagreement or strong

disagreement responses. This indicated a unanimous agreement among participants regarding the positive impact of group participation on task completion.

Statement 9, addressing Concept Mapping with mutual assistance, displayed that a significant majority had positive experiences, with unanimous agreement among participants. This highlighted the highly appreciated and well-received collaborative approach in completing Concept Maps on English grammar points.

Statement 10, concerning boredom during Concept Map-related tasks, revealed a consensus among participants regarding the absence of boredom. Most strongly agreed, with additional agreement, emphasizing the potential benefits of interactive and collaborative elements in these activities.

Statement 11, assessing the impact of Concept Mapping on classroom environment, showed a perception of an active and engaging learning atmosphere, with most participants highly appreciating the strategy. While some acknowledged its effectiveness with varying enthusiasm, a minority did not perceive it as significantly impacting classroom activeness.

Statement 12, about enjoying learning English, indicated a prevalent positive attitude among participants, with a vast majority strongly agreeing or agreeing. The absence of ambivalence in feelings suggested a strong enthusiasm for learning English, which could have implications for effective language learning strategies and a positive learning environment.

9.0 FINDINGS

The findings of the first component collectively highlight the program's effectiveness in enhancing various aspects of English language learning, including conceptual knowledge, understanding of parts of speech, usage of articles, comprehension of different tenses, and describing relationships between concepts. While the majority of respondents benefited from the program, some areas may benefit from adjustments to further enhance learning outcomes.

The findings of the other component underscore the positive experiences and perceptions of participants regarding Concept Mapping, collaborative work, and learning English, highlighting the potential benefits of such approaches in language learning and fostering an engaging and enjoyable learning environment.

10.0 CONCLUSION

In summary, the collective findings from this study emphasize the program's efficacy in enriching various facets of English language learning, encompassing conceptual comprehension, parts of speech understanding, article usage, mastery of diverse tenses, and the aptitude to articulate intricate conceptual relationships. The majority of participants reported favorable experiences and substantial advancements in these domains. Concurrently, the investigation unveiled that Concept Mapping, collaborative endeavors, and the broader English learning milieu garnered positive perceptions among respondents, signifying the potential advantages of these pedagogical approaches in cultivating an immersive and enjoyable learning atmosphere. Nevertheless, it is prudent to acknowledge that certain facets may require refinements to optimize learning outcomes. Overall, these outcomes underscore the program's significance in language education and advocate for ongoing research and enhancement efforts to tailor its effectiveness for a diverse learner base.

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