



**CONTENT ANALYSIS OF DIAGRAMMATIC REPRESENTATION ON GEOGRAPHY  
TEXT BOOK CLASS IX, NCERT**

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**Abstract:**

The study is an attempt to investigate content analysis of diagrammatic representation in lower Secondary School Geography Textbook based on diagrammatic typology. The study analysed and compared the frequency of the diagrams and the importance of them for the study of the subject 'Geography'. Content analysis is this study categorizes the diagrams, drawings, maps, charts, graphs of the textbook. On a whole there are about 12 iconic diagrams, 30 graphical representations, 14 schematic diagrams. There are 12 maps of India and 2 maps of the world. The results confirm that there should be more use of symbolic diagrams and a better distribution of graphical representation throughout the textbook.

**Keywords:** Content Analysis, Diagrammatic Representation, Lower Secondary, Geography, Textbook, N.C.E.R.T.

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**Introduction:**

Education is the most important way in which we learn essential knowledge and skills, it is an organized process of giving and receiving instructions systematically. Education has moved beyond the peripheries of textbooks and has reached out to the practical world. Education is in which the elder, experienced transfer knowledge, wisdom to the newer generation or offspring's. Education is the key to success of a person in his/her life. A person shapes his life, career, growth on the basis of his /her knowledge. Knowledge has the strength to open may doors of opportunities and better prospects in a person's life.

Textbooks are the most essential and old method of spreading knowledge. Textbooks play a vital role in the process of teaching and learning specially during the school period. The quality of the textbooks is very important in this process. A text book is not only important for a learner but is also important for a teacher.it helps keep the study on track, provides relevant and important information and facts in a consisted manner. Textbooks are based on the current syllabus and the education pattern in practice, thus helping in the imparting of apt knowledge in a specific time period.

The content of the textbook is what makes the textbook gain its utility. Correct, useful, updated, relevant content makes the textbook useful for that particular aim.

Geography is no more just a classroom subject, it has growing and connecting civilizations and men form ages. Geography is called the mother of all subjects. The subject holds great importance in the field of education as well in a person's daily life. By understanding the subject 'Geography' a person gets to know his/her environment, his/her locality and the natural process of life. The need and importance of geography are:



- Help us understand basic physical systems that effect everyday life.
- The knowledge of places and locations is learnt through Geography.
- Helps develop a ‘mental map’ in the mind of a person.
- The process of human and physical systems can be understood.
- To recognize spatial distributions at all scales.
- Helps develop to make sensible developments.
- Understand global integration and the importance of environment.

The first thought that comes to our mind when we say geography is the picture of a map. Geography is the subject of spatial study, and it cannot survive without graphical representation (diagrams, maps, charts). Geography is the subject which studies the physical, human, cultural, regional, and various other aspects of knowledge. Thus, to understand and relate to the subject geography diagrams are very important, they give the actual essence of the subject to the learner in a proper and more approachable way.

The diagrams in a geography textbook helps the learner to develop interest in the subject creating a brighter life of the subject as well as the learner. Diagrams help the learner to understand his/her life, society, surroundings, processes and culture and relate to them in a more better and apt manner.

#### **Statement of the Problem:**

Content Analysis of Diagrammatic Representation on Geography.

#### **Operational Definition of the Term:**

**Content:** Content is the subjects or topics covered in a book or document. The chapters or other formal division of a book or document.

**Analysis:** Analysis is a detailed examination of the elements or structure of something.

**Content Analysis:** is a technique for systematically describe written, spoken or visual communication. It emphasises on the quantitative study of the content.

**Diagrammatic:** It is the form of diagrams. The diagrams are further categorised into

- Drawing (Iconic)
- Photos (Schematic)
- Charts and graphs (Graphical)

**Iconic Diagrams:** Iconic Diagrams are which are in the forms of drawings or sketches. These types of diagrams or sketches. These types of diagrams help in the child’s picturization of the written matter.

**Schematic Diagrams:** Schematic Diagrams are the pictures of the real world, but they only preserve the physical relationships of the target information.

**Charts and Graphs:** Charts and Graphs include tables, charts, graphs maps. These depict the graphical representation of data.

#### **Objective of the study:**

To acquire knowledge about the frequency of diagrams included in the Secondary Text Book of Geography- Contemporary India of Class IX, N.C.E.R.T.

The quantity and proportion of each diagram type in each chapter of the Geography Textbook. The study is to bring out the importance of diagrams, maps in the teaching and learning of the subject ‘Geography’.

### Delimitation of the Study:

The study is delimited only to the Geography text book of Class IX N.C.E.R.T.

The diagrams of the text book are studied excluding the diagrams in the glossary and Appendix.

### Methodology

- The data in the study has been collected from the Geography text book of Class IX N.C.E.R.T.
- The methodology used in compiling the study is inductive method.
- The procedure of the study was to code the different diagrams of the Geography text book into iconic, schematic, chart and graph coding scheme. The diagrams were coded on the basis of Hegarty et. al (1991) taxonomy. It is very useful for understanding the various diagrams of each book.
- Lastly the percentage and ratio between different diagrams of the textbook and between each chapter of the text book.

### Population and Sample

The population of the study is only the Textbook of geography of Class IX, N.C.E.R.T.

### Statistical Analysis

**Table -1 Frequency of Diagrams in the Geography Textbook**

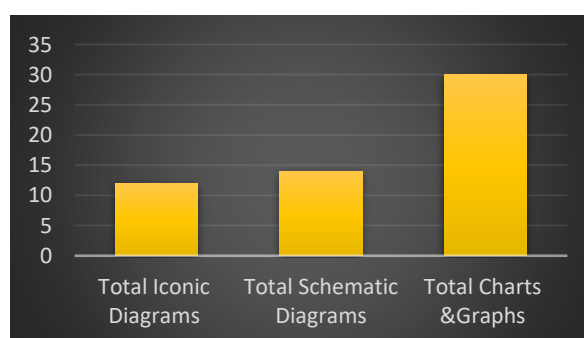
Total Graphical Diagrams	Total Iconic Diagrams	Total Schematic Diagrams
30	12	14

The above Table (Table-1) represents the total diagram distribution in the chapters of the geography textbook of class IX. According to the coding scheme the diagrams have been categorized into Total Geographical Diagrams which are 30; total Iconic Diagrams being 12; and total schematic diagrams being 14 in the whole textbook.

The ratio being: -

Graphical Diagrams	Iconic Diagrams	Schematic Diagrams
15	6	7

**Total Frequency of Iconic, Schematic and graphical Diagrams in the textbook, in the form of a bar graph**

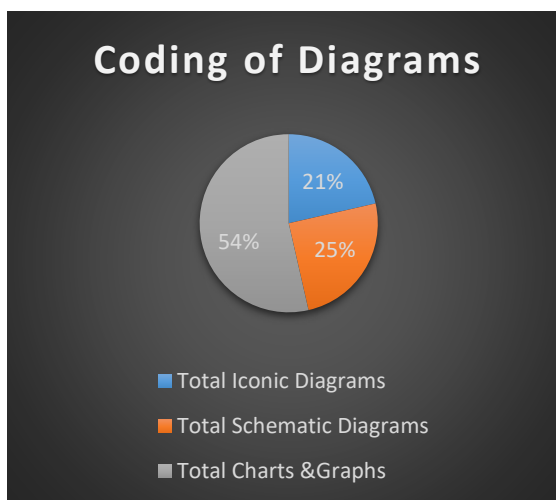


**Table 2- Percentage of the Total Coded diagrams in the textbook**

Graphical Diagrams	Schematic Diagrams	Iconic Diagrams
54%	25%	21%

The above table (Table 2) shows the total percentage of graphical, schematic and iconic diagrams, in the whole textbook. The graphical diagrams are 54%, Schematic Diagrams are 25%, and iconic diagrams are 21 %.

**Coding of diagrams in the form of a pie chart**



**Table -3 Types of Maps in the Textbook**

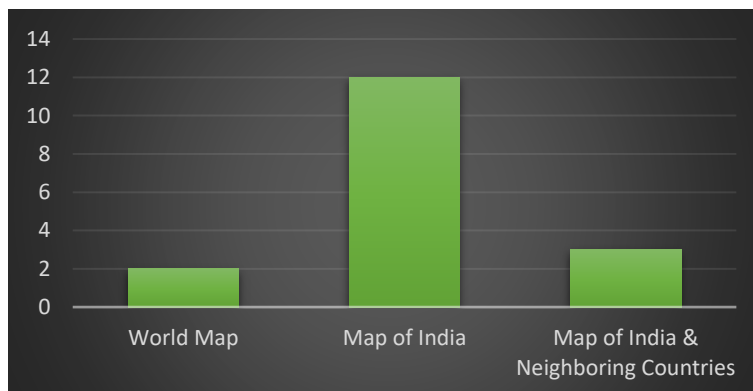
World Map	Map of India	Map of India & Neighboring Countries
2	12	3

The above table (Table 3 ) shows the frequency of world maps being 2, The maps of India being 12 and 3 maps of Asia

World Map	Map of India	Map of Asia
2	12	3

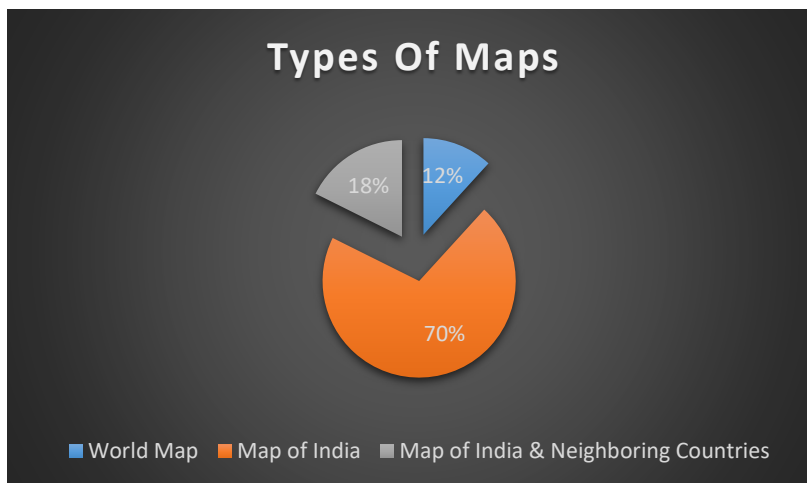
The Ratio between world maps and map of India is 1:6

**Total frequency of World Maps, Maps of India, and Maps of Asia in the form of a bar graph**



In the above bar graph the frequency of maps are depicted.

Types of Maps are depicted in the form of a pie chart, in percentage of total maps



The above pie chart shows the Types of Maps in the form of percentage. The total world maps in the book are 12%, maps of India are 71%, and maps of Asia are 18%.

**Table -4 Frequency of Coded Diagrams of the Textbook, Chapter wise**

Name of Chapter	Iconic Diagrams	Schematic Diagrams	Charts & Graphs	
1-India Size & Location	0	0	6	
2 -Physical Features of India	1	6	3	
3- Drainage	6	3	1	
4- Climate	0	2	8	
5- Natural Vegetation & Wild Life	5	3	4	
6- Population	0	0	8	
<b>TOTAL</b>	<b>12</b>	<b>14</b>	<b>30</b>	<b>56</b>

The above table (Table 4 ) describes the frequency of Iconic , Schematic and Graphical diagrams in each of the six chapters. In the first chapter ‘India Size and Location ‘there is 1 Iconic diagram, 6 schematic diagrams and 1 graphical diagram.

In the second chapter ‘Physical Features of India’ there is 1 Iconic diagram, 6schematic diagrams and 3 graphical diagrams.

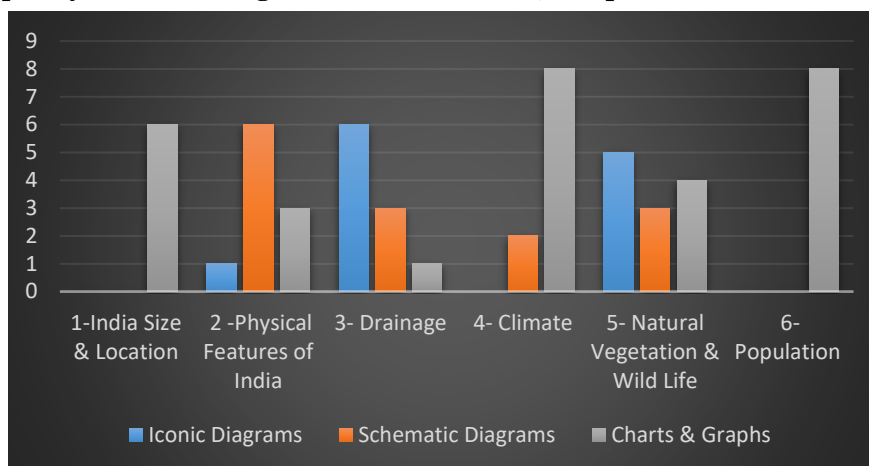
In the third chapter ‘Drainage’, there are 6 iconic diagram ,3 schematic diagrams and 1 graphical diagram.

In the fourth Chapter ‘Climate’ there are 0 iconic diagrams, 2 schematic diagrams, 8graphical diagrams.

In the fifth chapter ‘Natural Vegetation and Wildlife’ there are 5 iconic diagrams, 3 schematic diagrams, and 4 graphical diagrams.

In the sixth chapter, ‘Population’ there are 8 Graphical diagrams rest being null.

**Table -4 Frequency of Coded Diagrams of the Textbook, Chapter wise in the form of a bar graph**



The above bar graph shows the frequency of the coded diagrams (iconic, Schematic, charts and graphs) in each chapter of the geography textbook. It is clearly comparing the various diagram in each chapter as well as comparing them with all the other six chapters in the geography textbook of class IX, N.C.E.R.T.

#### Result:

The result of the study suggests that the three diagram types were found in Class IX Geography Textbook and a distributional pattern could also be grouped to be demonstrated. Findings show that the distribution of diagrams on the basis of Hegurty's diagrammatic typology which includes iconic, schematic and graphical diagrams. Secondly, it emphasized the usage of different type of diagrams in class IX for the subject Geography, and the important of diagrams for the learning of the subject 'Geography'.

Diagrammatic strategies should be used to increase the level knowledge and learning capacity of student. Even teachers should use diagrammatic representations to enhance skills and academic performance of the student.

#### Discussion:

The frequency studied of the diagrammatic representation results in that the frequency, of graphical diagrams in Chapter 4, 'Climate' are maximum. The graphical representation being the maps of India. Seeing the whole text book, the ratio of graphical diagrams exceeds the schematic and the iconic diagrams. The concentration of graphical diagrams being the most in Chapter 4 and 6 being 'Climate' and 'population'.

Even in the frequency of maps of India are higher as compared to the other maps in the text book.

#### Conclusion:

The study analysed the frequency and distribution of diagrams in the geography books of class IX.

The iconic diagrams are a rich source of information which makes it easier to understand by the learner. The iconic diagrams help the learner to understand the formation and structures of different geographical processes. The graphical diagrams are a must and a basic necessity for the understanding of the subject Geography. They are very important for the intellectual development of the child. In class IX the child needs to be aware of the data represented through tables and graphs for the widening of the horizon of the child's perspective. Schematic

diagrams hold their importance by depicting picture of the real world, making the child aware of the actual situation of the real world.

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