

A Study of Gender Prediction in I.C.S.E Board Social Science Text Books of Class IX

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Abstract- Gender is not a women's issue; it is a people's issue. "Femininity" does not exist in isolation from Masculinity. The construction and power of one determines the construction and power of the other. Unequal gender relations stunt the freedom of all individuals to develop their human capacities to their fullest. Therefore it is in the interest of both men and women to liberate human beings from existing relations of gender.

Gender bias in education means treating boys and girls differently at school. This can include how teachers respond to students, what students are encouraged to study, and how textbooks represent gender roles. Under the constitution of India men and women are equal citizens in the eye of the law hence having the equal rights to all state resources. But social, economic and cultural dynamics have prevented the law form translating into reality. AS Education play a significant role in shaping the personality so we will have to see our curriculum whether there is gender bias exist or not.

Key Words - Gender, Gender bias, Gender Prediction, Text Book, Social Science

I. INTRODUCTION

Right from the vedic period Education, has a great social importance in societies. Philosophers of all periods, beginning with ancient stages, devoted to it a great deal of attention. Society and education are two inseparable elements in our world. It has always been in talks how education influences the society. The things we are taught and what we learn through our schooling affects the kind of person we are and consequently influences the society as a whole. But seldom do we tackle on society's influence on education.

The main social objective of education is to complete the socialization process. But Society is made up of male and female both. And The nation cannot develop properly if any of them is repressed through our socialization process. gender is one of the universal dimensions on which status differences are based. A gender role is a set of societal norms dictating what types of behaviors are generally considered acceptable, appropriate or desirable for a person based on their actual or perceived sex. Unfortunately in our patriarchal society a girl is not given the freedom to grasp and discover the world around her. The stories she hear, the books she read and all her experiences condition her to accept superiority of boys. She is shaped by social institutions to fit social roles voluntarily. She does not dare to affirm herself as subject but consider it is her womanly destiny and resigns herself to socially accepted roles. This socialization of femininity begins at very early ages. Girls begin defining their femininities in relation to boys. Yet gender bias in

education reaches beyond socialization patterns, bias is embedded in textbooks, lessons, and teacher interactions with students. Then these two questions come in the mind : Are females and males fundamentally different? And, if so, should they be treated the same or differently? What is the role of Education in this and how text books influences the society.

Social science is an academic discipline concerned with society and the relationships among individuals within a society. It includes History, Geography , Economics, Civics, Political Science and Sociology. One of the challenges of contemporary society and the educational system is to address the gender inequality in the social systems. We will have to see whether gender bias exist in the text books or not. Thus schools and teachers at all levels have a key role to play in developing a gender-sensitive future generation. The concept "gender" has been of interest to scholars and researchers in recent time, especially those in the field of social sciences and humanities.

II. OBJECTIVES OF THE STUDY

This study aims at investigating and revealing the gender bias in the Social Science text book content at Class IX level in India to control disparity, if any, in the acquisition of knowledge, development of skills and finally the all-round development of the personality of an individual child.. Following objectives are formulated by the investigator to fulfill the purpose of her study :-

1. To analyze the contents with reference to pictures used for each male and female in text book of social science at class IX in I.C.S.E Board books.
- 2.To point out the Number of times stereotypes activities and Non stereo type activities within the four walls for male and female in text book of social science at class IX in I.C.S.E Board books.
- 3.To point out the number of Occupations indicated for each male and female in text book of social science at class IX in I.C.S.E Board books
- 4.To point out the number of times references were made to each male and female in text book of social science at class IX in, I.C.S.E Board books

III. HYPOTHESES

The following hypotheses are formulated to empirically validate the above objectives:-

1. There is no significant difference between male and female picturization in text book of social science at class IX in I.C.S.E Board books.
2. There is no significant difference between Stereotype and Non Stereotype activities indicated in text book of social science at class IX in I.C.S.E Board books.
3. There is no significant difference between male and female Occupational activity indicated in text book of social science at class IX in I.C.S.E Board books.
4. There is no significant difference between the number of times references were made to each male and female in text book of social science at class IX in I.C.S.E Board books.

IV. SAMPLE

These are the books of Social Science of I.C.S.E which Researcher took for content analysis.

Board	Class	Subject	Book Name	Writer Name
I.C.S.E	IX	Social Science	History & Civics	D.N.Kundra
I.C.S.E	IX	Social Science	Total Geography	Jasmin Rachel Dolly Ellen Sequeira

History & Civics:- This book contains the following topics.

Section A : Civics

1. Our constitution
2. Basic features of the constitution
3. Fundamental Rights and duties
4. Directive Principles of State Policy
5. Elections
6. Political parties
7. Local self-Government ----- Rural
8. Local self-Government ----- Urban

Section B : History

1. The Harappan Civilisation
2. Emergence of Vedic India
3. The Rise of New Religious Sects : Jainism and Buddhism
4. The Emergence of Empires : The Maurya Empire

5. The Sangam Age
6. The Age of the Guptas
7. Medieval India : South India and the Cholas
8. Medieval India ---- The Delhi Sultanate
9. The Age of the Mughals
10. The Sufi and Bhakti Movements
11. The Renaissance
12. The Reformation
13. The Industrial Revolution

Total Geography:- This book contains the following topics.

Unit 1- Our World

1. The Earth as a Planet
2. The Conditions that favour life on Earth
3. Latitudes and Longitudes
4. Motions of the Earth ---- Rotation and Revolution

Unit 2- Structure of the Earth and Internal Processes

1. Earth's Structures
2. Landforms of the Earth
3. Rocks
4. Volcanoes
5. Earthquakes
6. Folding and Faulting

Unit 3-Weathering

1. Weathering

Unit 4 - Hydrosphere

1. Importance of Oceans
2. Movement of Ocean Waters

Unit 5 - Atmosphere

1. Composition and Structure of the Atmosphere
2. Insolation and Heat Balance
3. Pressure Belts and Types of Winds
4. Precipitation --- Its Types and Causes

Unit 6 - Pollution

1. Types of Pollution
2. Sources of Pollution
3. Effects of Pollution
4. Abatement of Pollution

Unit 7- Natural Regions of the World

1. Natural Regions of the World

V. METHODOLOGY

The method for the present study is the content analysis of text books of Social Science of class IX I.C.S.E Board on the basis of quantitative data obtained from the

observation of citations that represent Male , Female and their representation. Researcher did the content Analysis of all the above chapters of both books.

5.1 Content Analysis

Content analysis is a method for summarizing any form of content by counting various aspects of the content. Content analysis is a research tool used to determine the presence of certain words or concepts within texts or sets of texts. Content analysis makes careful evaluation of bias, prejudices or propagation.

5.2 Method of data collection

In order to collect the systematic data Researcher approached the books of Social science for class IX of I.C.S.E Board. The relevant data were collected with the help of measuring tools such as “Gender wise occurrence of Evidence”.

The investigator did the content analysis . Doubts and confusions were made clear by the investigator before moving to the next item. In order to identify the elements of gender discrimination in text books, the following check list is prepared to study the academic parameter.

5.3 Visuals

1. The number of pictures used for male and female as a single as well as in group also.
2. Representation of men and women in Stereotype and non stereotype activities

Type	Observed Frequency (O)	Expected Frequency (E)	(O - E)	(O - E) ²	$\frac{(O - E)^2}{(E)}$	X ² - Value	Significance
Male	337	194.5	142.5	20306.25	104.40	208.80	Significant at 0.01
Female	52	194.5	-142.5	20306.25	104.40		

Table I : Male and Female Picturization in Text Book of Social science at Class IX in I.C.S.E Board Book

It is evident from table 1.0 that the observed frequency for male is 337 and for female it is 52. Expected frequency will be just half of the total no. of males and females and that will be 194.5. Putting above values in the formula the calculated chi square value is 208.80. The tabulated chi square value is 6.635 at 0.01 level of significance with 1

5.4 Textual

1. Occupations indicated for male and female.
2. Role assigned within the four walls stereo type and non stereotype activities.
3. Number of times references were made to male and female.

5.5 Data Analysis

1. In this Researcher used non parametric test because of the small sample of books i.e there are only two books of social science in I.C.S.E board.
2. And in Non Parametric test researcher chose Chi square test to analyze the significance of hypotheses.

5.6 Chi square test

Chi-square is a statistical test commonly used to compare observed data with data we would expect to obtain according to a specific hypothesis. The formula for calculating chi-square is:

$$X^2 = \sum \frac{(O - E)^2}{E}$$

That is, chi-square is the sum of the squared difference between observed (o) and the expected (e) data (or the deviation), divided by the expected data in all possible categories. After content analysis of the above mentioned books following data were taken out.

df. As here calculated chi square value is more than tabulated chi square value, so the H₀(1) is rejected. The result clearly indicates that “There is significant difference between male and female picturization in text book of social science at class IX in I.C.S.E Board books. It shows that there is much more picturization of males as compare to females.

Type	Observed Frequency (O)	Expected Frequency (E)	(O - E)	(O - E) ²	$\frac{(O - E)^2}{(E)}$	X ² - Value	Significance
Stereotype Activities	49	30.5	18.5	342.25	11.22	22.44	Significant at 0.01
Non stereotype Activities	12	30.5	-18.5	342.25	11.22		

Table II: Number of times Stereotype and non Stereotype activities in Text Book of Social science at Class IX in I.C.S.E Board Book

It is evident from table 2.0 that the observed frequency for Stereotype activities is 49 and for Non stereotype

activities it is 12. Expected frequency will be just half of the total no. of Stereotype and Non stereotype activities and here it is 30.5. Putting above values in the formula the calculated chi square value is 22.44. The tabulated chi square value is 6.635 at 0.01 level of significance with 1 df. As here calculated chi square value is more than tabulated chi square value, so the $H_0(2)$ - is rejected.

The result clearly indicates that “There is significant difference between Stereotype and Non Stereotype activities indicated in text book of social science at class IX in I.C.S.E books. It shows that Stereotype activities within the house are more than the Non Stereotype activities.

Type	Observed Frequency (O)	Expected Frequency (E)	(O - E)	(O - E) ²	$\frac{(O - E)^2}{(E)}$	X ² - Value	Significance
Male	1283	673	610	322100	552.90	1105.80	Significant at 0.01
Female	63	673	- 610	322100	552.90		

Table III : Male and Female Occupational Activities in Text Book of Social science at Class IX in I.C.S.E Board Book

It is evident from table 3.0 that the observed frequency for male is 1283 and for female it is 63. Expected frequency will be just half of the total no. of males and females and that will be 673. Putting above values in the formula the calculated chi square value is 1105.80. The tabulated chi square value is 6.635 at 0.01 level of significance with 1

df.As here calculated chi square value is more than tabulated chi square value, so the $H_0(3)$ is rejected. The result clearly indicates that “There is significant difference between male and female Occupational activity indicated in text book of social science at class IX in I.C.S.E Board books. It shows that there are much Occupational activity of males as compare to females.

Type	Observed Frequency (O)	Expected Frequency (E)	(O - E)	(O - E) ²	$\frac{(O - E)^2}{(E)}$	X ² - Value	Significance
Male	2352	1298	1054	1110916	855.87	1711.74	Significant at 0.01
Female	244	1298	-1054	1110916	855.87		

Table IV : _Male and Female No. of Time references in Text Book of Social science at Class IX in I.C.S.E Board Books

It is evident from table 4.0 that the observed frequency for male is 2352 and for female it is 244. Expected frequency will be just half of the total no. of males and females and that will be 1298. Putting above values in the formula the calculated chi square value is 1711.74. The tabulated chi square value is 6.635 at 0.01 level of significance with 1 df. As here calculated chi square value is more than tabulated chi square value, so the $H_0(4)$ is rejected. The result clearly indicates that “There is significant difference between the number of times references were made to each male and female in text book of social science at class IX in I.C.S.E Board books. It shows that there is much more Times of references of males as compare to females.

Social Science of class IX of I.C.S.E Board, following findings were interpreted by Researcher.

VI. FINDINGS & DISCUSSION

As textbooks play an important role in the socialization of children. Therefore It is important to analyze school textbooks from gender perspectives . in the text books of

- 1.It is identified that “There is significant difference between male and female picturization in text book of social science at class IX in I.C.S.E Board books. It shows that there is much more picturization of males as compare to females.
- 2.The result clearly indicates that “There is significant difference between Stereotype and Non Stereotype activities indicated in text book of social science at class IX in I.C.S.E books. It shows that Stereotype activities are more than the Non Stereotype activities.
- 3.The result shows “There is significant difference between male and female Occupational activity indicated in text book of social science at class IX in I.C.S.E Board books. It shows that there are much Occupational activity of males as compare to females.

4. The result clearly indicates that "There is significant difference between the number of times references were made to each male and female in text book of social science at class IX in I.C.S.E Board books. It shows that there is much more Times of references of males as compare to females.

Gender socialization occurs through four major agents: family, education, peer groups, and mass media. Each agent reinforces gender roles by creating and maintaining normative expectations for gender-specific behavior. Exposure also occurs through secondary agents, such as religion and the workplace. Repeated exposure to these agents over time leads people into a false sense that they are acting naturally based on their gender, rather than following a socially constructed role. Gender bias form the basis of prejudiced beliefs that value males over females.. Due to existing biases of society towards the role of women, there is discrimination on sex basis, which is discernible in textbooks.

VII CONCLUSION

The curricular material especially the textbooks play a major role in transmitting unequal images of men and women and very often negative stereotypes of women are conveyed. On the relationship between bias in a textbook and the gender identity, it can be seen from the above finding how gender formation is influenced by the textbooks with which children come into contact during the long years of their formal education." Gender stereotyping can have these negative effects on individuals. So for the betterment of Society there should be no gender bias in text books.

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