

A Study of Gender Prediction in U.P Board Social Science Text Book of Class IX

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Abstract- Curriculum is a blueprint of experiences that have been planned for students. A curriculum is essentially a planned educational programme. It has definite objectives and these objectives are derived from goals. These goals are again conceived at three levels viz; ultimate(or long term) goals, mediate (or short term) goals and proximate (or immediate) goals. Since textual materials are pivotal sources of knowledge it is important that they include issues of equity and equality, as children both boys and girls from all segments of society access them. Therefore, portrayal of Gender relation and there contributions are important in the thematic selection pertaining to all disciplines and their portrayal in the visual depiction. In the Indian context textbooks are a great significance depository of knowledge. Indian school curriculum has generally followed the patriarchal traditions which type cast individuals in unequal gender based roles.

- Whether textbooks bridge all segments of society related to gender.
- Whether they are still showing the stereotypes images even when Society is modernizing also.
- In the construction of knowledge in different subjects' domains, it is important to analyze the content, visuals and exercises of the textbooks from a gender perspective. Human values should be woven in text books. There should not be any bias based on Sex, class, race, religion etc.

Key Words - Gender, Curriculum, Patriarchy, Gender bias, Gender Prediction, Text Book, Social Science, U.P Board

I. INTRODUCTION

In the Indian context textbooks are a great significance depository of knowledge. Indian school curriculum has generally followed the patriarchal traditions which type cast individuals in unequal gender based roles.

A gender audit of textual material would help in knowing:

- Whether textual materials relates to all disciplines address contributions and achievement of men and women in an adequate manner.
- Whether textbooks reflect heterogeneous identities of all groups in an inclusive manner.



These are not just traffic signs: They are rules for women in society. When society is made up of men and women why are there such rules only for women?

As textbooks reflect social realities so for betterment of society first we will have to check the curriculum from which students are getting the same values and traditions of patriarchal society. We will have to analyze whether in our curriculum we are seeing the same stereotype image of women or not.

U.P Board

The Board of High School and Intermediate Education Uttar Pradesh is the independent examining board supervised by the Uttar Pradesh state government for the Standard 10 examination (or secondary school level examination) and Standard 12 examination (or inter college level examination) of Uttar Pradesh, India. The examinations conducted under the administration of Uttar Pradesh government are called the

High School examination and Intermediate examination for the 10th and 12th standards respectively.

Social Science

Social science is a major category of academic disciplines, concerned with society and the relationships among individuals within a society. Social sciences often include history, geography, civics, economics and sociology in addition to many other fields.

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 Uttar Pradesh Board(India). Following objectives are formulated by the investigator to fulfill the purpose of this study :-

1. To analyze the contents with reference to pictures used for each male and female in the textbook of Social Science of class IX in U.P Board.
2. To point out the number of times references were made to each male and female in the textbook of Social Science of class IX in U.P Board.
3. To identify the Stereotype activities and Non-Stereotype activities within the four walls for male and female in the textbook of Social Science of class IX in U.P Board.

4. To Point out the number of times Occupations indicated for each male and female in the textbook of Social Science of class IX in U.P Board.

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 the textbook of Social Science of class IX in U.P Board.
2. There is no significant difference between the number of times references were made to each male and female in the textbook of Social Science of class IX in U.P Board.
3. There is no significant difference between Stereotype and Non-Stereotype activities with in the four walls for male and female in the textbook of Social Science of class IX in U.P Board.
4. There is no significant difference between male and female total number of Occupational activity indicated in the textbook of Social Science of class IX in U.P Board.

IV. SAMPLE

Details of Social Science book of U.P. Board

Board	Class	Subject	Book Name	Writer Name	Publication
U.P	IX	Social Science	Samajik Vigyan	Jain Kumar Jain & Brijendra Kumar Dwivedi	Rajiv Prakashan, Allahabad

U.P Board :- Samajik Vigyan

This book contains the following topics:-

Anubhag 1 : Aitihāsik ainwam sanskritik Virasat

Ekai 1

(Ka) Bharat mein parambhik sabhyata ka vikas

Ka(i) khadya sangrahan ainwam pashucharan se krishi tak

Ka(ii) Vishwa ki nadi gahti ki sabhyatayon ka samanaya parichay

(ka) Mesopotamia ki sabhyata

(kha) Mistra ki sabhyata

(ga) China ki sabhyata

Ka(iii) harappa sabhyata

Ka(iv) Vedic samaj ainwam sanskriti

Ka(v) Jain tatha Baudh dhram ka prabhav

(kha) Janpadon ainwam samrajya ka vikas

Kha(i) Janpadon ki rajnitik pratidandita tatha mahajanpad

Kha(ii) Samrajya ka vikas : Mourya Samrajya (Chandra Gupta Mourya ainwam Ashok)

Kha(iii) gupta Samrajya (Aarthik, Samajik ainwam Sanskritik vikas)

Kha(iv) Harsh kalin uplabhadiyan

(Ga) Chote Rajyon ka uday

Ga(i) Samntawad : Tatkalin rajputon ka utkarsh

Ga(ii) Samajik ainwam Sanskritik uplabhadiyan

Ga(iii) Dakshin Bharat ke pramukh rajwansh : Sanskritik uplabhadiyan

Ekaii 2

(ka) sultanatkalin Bharat

(i) Delhi Sultanat : Sthapana Evem Sudrananikaran.

- (ii) Sultanat Kaleen Prashasnik Uplabdhian
- (iii) Tatkaleen Samaj Evem Sanskriti (Dharmik sahisuntaa, Sufi tatha Bhakti Aandolan)
 - (Kha) Mougla kal mein Bharat
- (i) Shershaah Ki Uplabdhian
- (ii) Muglon Ka Yogdaan
- (iii) Maratha Shakti Ka Abhudaya

Ekaii 3

- (i) Manchitra Karya
- (ii) Project Karya

Anubhag 2 --- Nagrik Jivan

Ekaii 1

(ka) Bhartiya Savindhan

- Ka(i) Samvidhaan Ka Nirmaan Evam Vishaishtain
- Ka(ii) Mool Adhikar aur Maulik Kartavya
- Ka(iii) Rajya Ke Neeti-Nirdashak Tatva

(Kha) Bharta mein loktantra (Ek Parichay)

Kha(i) & (ii) Loktantra, sarvbhom vyask Metadikaar evem Nirvachan Prakiriya

Kha(iii) Bhartiya Loktantra Mai Rajnitik Daloo ki Bhumika

Kha(iv) Janmat Nirmaan, Maanvadikaar Evem Suchnaa Ka Adikaar

Ekaii 2

(Ka) Sthaniya Star per shashan

- Ka(i) Sthaniya Ester Ke Shason Ka Mahatav.
- Ka(ii) Gram Panchayat, Shetra Panchayat, Jila Panchayat
- Ka(iii) Nagar Prasahsan, Nagar Panchayat, Nagar Palika Parishad, Nagar Nigam

(Kha) Rashtriya Chounoutiyan ewam apeshayein

- Kha(i) Chunoutian
- Kha(ii) Nirbal Varg Evem Mahila Ka Vikas
- Kha(iii) Apekshain : Aenekta Mae Ekta, Sarvdharm-Sambhav, Laingik Samanta Evem Vaigyanic Dristikoun

Anubhag 3 : Paryawarniya Addhyan

Ekaii 1

(Ka) Paryawarniya Sarachna

- Ka(i) Perryavaran Ka Tatperye, Mahatva Evem Tatva
- Ka(ii) Paaristhitikeye Tantra, Sanrachna Mahattaa Evem Santulan

- Ka(iii) Perryavaran Ki Suraksha Evem Sanrakshan
 - (Kha) Paryavaran Ka Bhoutik Swarup
- Kha(i) Sthalandal : Rachna Evem Parivartankari Shaktiyan
- Kha(ii) Vayoumandal
- Kha(iii) Jalmandal : Rachna, Jal Ke Srotra
- Kha(iv) Jaiv Mandal
- Kha(v) Perryavaran ka Pradushan

Ekaii 2

(Ka) Prakartik Sansadhan

- Ka. Sansadhan Ka taatperay Evem Mukhey Sansadhan
 - (Kha) Manviya Sansadhan

Kha(i) Jansankhya : Ghantya Evem Vitran

Kha(ii) Badti Jansankhya Ki Samusyaein

Kha(iii) Jansungkhya Niyantaran Ki Aavshykata Evem Aupnaiye Gaye Upaye

Ekaii 3

- (i) Manchitra Karya
- (ii) Project Karya

Anubhag 4 : Aarthik Vikas

Ekaii 1

(Ka) Aarthavyavastha Ek Addhyan

- Ka(i) Aarthavyavastha Ka Tatparya Evem Prakar
- Ka(ii) Arthvyavastha Ke Mool Adhaar

(Kha) Bhartiya Aarthvyavastha Ka Swarup

- Kha(i) Aarthavyavastha Ka Tatparya Evem Prakar.
- Kha(ii) Bhartiya Arthvyavastha Ke KShetra

Ekaii 2

(Ka) Bhartiya Arthvyavastha ke Sanketak

- Ka(i) Suviksit Samajik Evem Aarthik Vikas
- Ka(ii) Samajik Vikas Ke sanketak
- Ka(iii) Aarthik Vikas Ke sanketak
- Ka(iv) Vikas Ki Dristi Se Vishva Mein Bharat Ki Istithi

In this book researcher has done content analysis of all the chapters including with the exercises.

V. METHODOLOGY

The method for the present study is the content analysis of text book of Social Science of class IX U.P 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 this book.

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 U.P 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.

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 (Noun, Pronoun and Pictures) were made to male and female.

5.5 Data Analysis

In this Researcher used non parametric test as the data is collected on the Nominal scale 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.

➤ *Chi-Square Formula :-*

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

O = the frequencies observed
E = the frequencies expected
Σ = the 'sum of'

The steps in using the chi-square test may be summarized as follows:-

1. Write the observed frequencies in column O
2. Figure the expected frequencies and write them in column E.
3. Use the formula to find the chi-square value:
4. Find the df.
5. Find the table value (consult the Chi Square Table.)
6. If the chi-square value is equal to or greater than the table value, reject the null hypothesis and if the square value is less than the table value then accept the null hypothesis.

After content analysis of the above mentioned books following data were taken out.

Objective 1: To analyze the contents with reference to pictures used for each male and female in the textbook of Social Science of class IX in U.P Board.

H₀(1) : There is no significant difference between male and female picturization in the textbook of Social Science of class IX in U.P Board.

Table No :- 1.0

Male and Female picturization in the textbook of Social Science of Class IX in U.P.Board

Gender	Name of Book (With no. of Pictures)	Observed Frequency (O)	Expected Frequency (E)	(O - E)	(O - E) ²	$\frac{(O - E)^2}{(E)}$	χ ² Value	Significance
Male	Samajik Vigyan (19)	19	11	8	64	5.8	11.6	Significant at 0.01
Female	Samajik Vigyan (03)	3	11	-8	64	5.8		

With reference to table 1.0, it can be clearly stated that the observed frequency of male pictures are 19 and female pictures are 3 . The Expected frequency is meant to be just half of the summation of male and female frequency which results in 11 . The chi square value is calculated by applying the ascertained values in the requisite formula, the outcome of which is 11.6

It is tested at 0.01 level of significance. For this Researcher compared the calculated chi square value with the table value of chi square . The tabulated value of chi square value is 6.635 at .001 level of significance with 1 df.

It can be concluded that the calculated chi square value is more than tabulated chi square value which makes this value

significant at 0.01 level. Thus, the Hypothesis $H_0(1)$ is rejected.

Consequently, this culminates that there is significantly more picturization of males as compared to females.

Objective 2 : To point out the number of times references were made to each male and female in the textbook of Social Science of class IX in U.P Board.

$H_0(2)$: There is no significant difference between the number of times references were made to each male and female in the textbook of Social Science of class IX in U.P Board.

Table No :- 2.0

Total number of times references in the textbook of Social Science of Class IX in U.P. Board.

Gender	Name of Book With no. of time References (Noun, Pronoun and pictures)	Observed Frequency (O)	Expected Frequency (E)	(O - E)	(O - E) ²	$\frac{(O - E)^2}{(E)}$	χ^2 Value	Significance
Male	Samajik Vigyan (4608)	4608	2536.5	2071.5	4291112.3	1691.7	3383.5	Significant at 0.01
Female	Samajik Vigyan (465)	465	2536.5	-2071.5	4291112.3	1691.7		

With reference to table 2.0, it can be clearly stated that the observed frequency of male number of times references are 4608 and female number of times references are 465 . The Expected frequency is meant to be just half of the summation of male and female frequency which results in 2536.5. The chi square value is calculated by applying the ascertained values in the requisite formula, the outcome of which is 3383.5

It is tested at 0.01 level of significance. For this Researcher compared the calculated chi square value with the table value of chi square. The tabulated value of chi square value is 6.635 at .001 level of significance with 1 df.

It can be concluded that the calculated chi square value is more than tabulated chi square value which makes this value significant at 0.01 level. Thus, the Hypothesis $H_0(2)$ is rejected.

Consequently, this culminates that there is significantly more number of times references of males as compared to females. In total number of times references, nouns, pronouns and pictures were counted and in these the frequency of male nouns were much higher than female nouns in the totality.

Objective 3 : To identify the Stereotype activities and Non-Stereotype activities with in the four walls for male and female in the textbook of Social Science of class IX in U.P Board.

$H_0(3)$: There is no significant difference between Stereotype and Non-Stereotype activities with in the four walls for male and female indicated in the textbook of Social Science of Class IX in U.P Board.

Table No :- 3.0

Total Stereotype and Non-Stereotype activities within the four walls in textbook of Social Science of Class IX in U.P Board.

Activity	Name of Book With no. of Activities (Male+Female)	Observed Frequency (O)	Expected Frequency(E)	(O - E)	(O - E) ²	$\frac{(O - E)^2}{(E)}$	χ^2 Value	Significance
Stereo type activities	Samajik Vigyan (47)	47	39	08	64	1.64	3.28	Significant at 0.01
Non - Stereo type activities	Samajik Vigyan (31)	31	39	-08	64	1.64		

With reference to table 3.0, it can be clearly stated that the observed frequency of stereo types activities within the four walls for male and female are 47 and Non stereo type activities within the four walls for male and female are 31 . The Expected frequency is meant to be just half of the summation of male and female frequency which results in 39 . The chi square value is calculated by applying the ascertained values in the requisite formula, the outcome of which is 3.28

It is tested at 0.01 level of significance. For this Researcher compared the calculated chi square value with the table value of chi square . The tabulated value of chi square value is 6.635 at .001 level of significance with 1 df.

It can be concluded that the calculated chi square value is less than tabulated chi square value which makes this value not

significant at 0.01 level. Thus, the Hypothesis $H_0(3)$ is accepted.

Consequently, this culminates that there is nearly equal amount of representation of Stereotype activities as compared to Non-Stereotype activities.

Objective 4 : To Point out the number of times Occupations indicated for each male and female in the textbook of Social Science of class IX in U.P Board.

$H_0(4)$: There is no significant difference between male and female total number of Occupational activity indicated in the textbook of Social Science of class IX in U.P Board.

Table No :- 4.0
Total Occupational activities in the textbook of Social Science of Class IX in U.P. Board.

Gender	Name of Book (With no. of Occupational Activities)	Observed Frequency (O)	Expected Frequency (E)	(O - E)	(O - E) ²	$\frac{(O - E)^2}{(E)}$	χ^2 Value	Significance
Male	Samajik Vigyan (3370)	3370	1738	1632	2663424	1532.46	3064.93	Significant at 0.01
Female	Samajik Vigyan (106)	106	1738	-1632	2663424	1532.46		

With reference to table 4.0, it can be clearly stated that the observed frequency of male occupational activities are 3370 and female occupational activities are 106 . The Expected frequency is meant to be just half of the summation of male and female frequency which results in 1738 . The chi square value is calculated by applying the ascertained

values in the requisite formula, the outcome of which is 3064.93

It is tested at 0.01 level of significance. For this Researcher compared the calculated chi square value with the table value of chi square . The tabulated value of chi square value is 6.635 at .001 level of significance with 1 df.

It can be concluded that the calculated chi square value is more than tabulated chi square value which makes this value significant at 0.01 level. Thus, the Hypothesis $H_0(4)$ is rejected.

Consequently, this culminates that there is significantly more occupational activities of males as compared to females.

VI. FINDINGS & DISCUSSION

In the text books of Social Science of class IX of U.P Board, following findings were interpreted by Researcher.

- It is identified that “There is significant difference between male and female picturization in text book of social science at class IX in U.P Board. It shows that there is much more picturization of males as compare to females.
- The result indicates that “There is significant difference between Stereotype and Non Stereotype activities indicated in text book of social science at class IX in U.P Board.

The total number of Stereotype activities are 47 and Non stereotype activities are 31 in “Samajik Vigyan” Book. It reveals that there is almost equal amount of Stereotype activities and Non-Stereotype activities of class IX in I.C.S.E book.

It depicts that there is no significant difference between stereotype activities of male and female. Though the figures, 47 for male and 31 for female suggest otherwise, but seeing it from the statistical standpoint, this depicts the changing gender roles in at least in a subject book. The conclusion derived from this study is one of a kind as at least it is showing nearly equal amount of stereotype and non-stereotype activities.

- The result shows “There is significant difference between male and female Occupational activity indicated in text book of social science at class IX in U.P Board. It shows that there are much Occupational activity of males as compare to females.
- 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 U.P Board. It shows that there is much more times of references of males as compare to females.

Equality is an amalgamation of two concepts, parity and quality. The concept of equality in education is significant and implies the percentage of boys and girls, relative to their respective age groups who enter the education system and participate in the full elementary and secondary cycles. Gender parity goes further, to offer the boys and girls similar opportunities to go to school and comprehend the teaching procedure and curriculum, free from stereotyped educational

orientation. The quality of the curriculum becomes the catalyst to attain and retain parity. The indicators of equality include length of schooling, importance of core curriculum, learning accomplishments, and the perception and outlooks of educators regarding the treatment of boys and girls in the schooling process.

VII. CONCLUSION

The Constitution of India, has proclaimed that men and women are equal citizens in the eyes of law and hence have uniform entitlement to all state amenities. However, the social, economic and cultural bias prevalent in the society has impeded this resolution from transforming into actuality. Conclusively, unequal gender associations hamper the ability of all individuals to enhance their prowess to the best of their abilities. For the welfare of both men and women, it is essential to liberate everyone from these unjust societal norms for the greater good. The world does not need discrimination but it needs opportunities to fulfill the objectives of everyone. We need to understand that men and women are complimentary to one another in order to live with love and care.

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