

# Statistical Study of Social Awareness Among Young Individuals in South 24 Parganas and Purulia

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August 26, 2024

## Abstract

Social awareness is the ability to comprehend and empathize with others' perspectives, emotions, and social cues, and to effectively apply this understanding in interactions with them. Social awareness is crucial for teenagers as it fosters empathy, understanding, and informed decision-making in diverse social contexts. It equips them to navigate and contribute positively to their communities, promoting social cohesion and personal development. International studies have examined social awareness and its components—such as gender, racial, religious, and political awareness—across various age groups, focusing primarily on race, gender, region, and sometimes year of study. On a national scale, such studies have primarily occurred in rural areas, examining social awareness directly or indirectly. Some studies show disparities in awareness across gender, caste, religion, region, and family status, while others claim no significant difference. Our study utilizes data collected through a survey by the Jana Sanskriti team under the Azim Premji Philanthropic Initiative, focusing on South 24 Parganas and Purulia due to prior rapport building with the locals. The findings suggest there is disparity across gender, caste, region, age, and education but no disparity across religion. Additionally, awareness levels across different sections of the study, including gender, religion, politics, and race, are the same. We recommend educating groups with relatively low awareness, an effort Jana Sanskriti is advancing through the use of theatre and plays.

## 1 Introduction

Awareness among people as stated by [1] plays an important role in carrying out their functions and adapting to live in multi-cultural contexts from their early age to the maturity. [2] studied the reality of social awareness and responsible decision making of grade 4 and 5 students in Vietnam and the correlation between these two. It deployed similar questionnaires with a 3-point Likert scale and performed One-Way ANOVA to examine the disparity in awareness levels by gender and residential area, and also used Pearson's Correlation Coefficient to study the relationship between social awareness and responsible decision-making. The results indicated that the social awareness among individuals is average while responsible decision making ability is slightly above average. Another study [3] delves into the political awareness among university students in post-apartheid South Africa. It utilized Ordinary Least Squares Regression to study the relationship between political awareness and off-campus political activity also studying the correlation between Off-Campus Political Participation and different other variables like sex, age,

faculty of study and year of study. It found that the effect of political awareness was significant on off-campus political activity and the only variable with statistically significant effect on political awareness and off campus activity was year of study. Another study [4] examined the relationship between inter group dialogues and adolescents' ethnic-racial identity and racism awareness using similar statistical tests like ANOVA and post-hoc tests. The findings indicated that there was statistically significant ethnic-racial group differences in ethnic-racial identity, but no group differences in racism awareness were found.

The study of social awareness among students has been approached from various angles in India. One notable study [5] conducted a gender-based comparative analysis of reading habits among undergraduate students, emphasizing the importance of systematic reading in intellectual and social development. This study utilized One-Way ANOVA to analyze the reading materials preferred by male and female students, aiming to uncover any gender disparities in reading habits eventually finding no significant difference among the two genders. Another significant contribution [6] explored students' awareness of human rights education at the higher secondary school level, primarily employing qualitative methods and relying on descriptive analysis. A third relevant study [7] conducted a comparative analysis similar to the second paper but focused on gender differences in human rights awareness. A major study done in this field on West Bengal is [8]. Very similar to our study, it adopts a questionnaire feedback based analysis technique with twenty questions on a five-point Likert scale with the options "Strongly Agree", "Agree", "Neutral", "Disagree" and "Strongly Disagree" making up the questionnaire. The area of study for this paper was Purba Medinipur and the candidates were 100 school students. It utilized t-test and found disparity across different variables of study.

Existing literature shows that many similar studies in this domain, including those focused on West Bengal, often have limited sample sizes or lack quantitative depth. For instance, [8] had only 100 samples with 20 questions and did not perform normality tests to justify parametric methods. Additionally, the study involved only three variables, which did not fully utilize the sample data.

The survey by Jana Sanskriti investigates combined awareness on caste-ism, patriarchy, and political dynamics in rural West Bengal's South 24 Parganas and Purulia districts among adolescents aged 12 to 21. This area of study was chosen for our study because of prior rapport building and accessibility. The survey was conducted at the KKB Centre under the APPI project. Our paper investigates the impact of demographic and societal variables such as race, gender, region, and age on social awareness levels. Utilizing statistical tests on responses from 406 participants to a comprehensive 64-question survey (post pre-processing) across four categories (gender, caste, religion, and politics), we aim to provide a robust analysis. By examining seven key covariates, our study offers a rigorous assessment of disparities among different groups and sections.

## 2 Study Area and Data Collection

The area of South 24 Parganas and Purulia was chosen due to prior rapport building and high accessibility to the target population in the study areas.

The survey was developed based on extensive field experience and academic input from the Indian Statistical Institute. The Jana Sanskriti team, with over 40 years of field

engagement, designed the survey to capture societal beliefs using a Likert-scale response format with options "not right at all", "not right", "don't know" and "totally right".

Participants independently completed the survey, with trained enumerators available for clarification. The survey had 458 respondents, ensuring a comprehensive representation of the population.

The survey was designed over one month and administered over two months in South 24 Parganas and Purulia. Adolescents aged 12 to 21 participated in groups of 10 to 15, with each session lasting over two hours to ensure detailed responses.

### 3 Analysis Techniques

Invalid responses and non-ordered questions were excluded, reducing the sample to 405 candidates and 74 questions. Responses were graded on a scale from 1 (most negative) to 5 (most positive). Total scores for each candidate were calculated and standardized.

A deterministic technique was employed to categorize candidates into three groups based on their responses: below average, average, and above average. Candidates with scores below the mean minus one standard deviation were categorized as below average, those with scores between the mean minus one standard deviation and the mean plus one standard deviation were categorized as average, and those with scores above the mean plus one standard deviation were categorized as above average. Under each categorical variable, the percentage of people in these three categories was observed.

Normality of the total score distribution was assessed using the Kolmogorov-Smirnov test. Since normality was confirmed, one-way ANOVA was used to detect significant differences across categorical groups. Additionally, we tested for significant differences in question totals across blocks to look for significant difference in social awareness among different section of our study.

### 4 Hypotheses

- **Hypothesis I ( $H_0$ ):** There is no age disparity in social awareness with regard to all questions in the questionnaire.
- **Hypothesis II ( $H_0$ ):** There is no gender disparity in social awareness with regard to all questions in the questionnaire.
- **Hypothesis III ( $H_0$ ):** There is no disparity in social awareness across different blocks with regard to all questions in the questionnaire.
- **Hypothesis IV ( $H_0$ ):** There is no district disparity in social awareness with regard to all questions in the questionnaire.
- **Hypothesis V ( $H_0$ ):** There is no race disparity in social awareness with regard to all questions in the questionnaire.
- **Hypothesis VI ( $H_0$ ):** There is no religious disparity in social awareness with regard to all questions in the questionnaire.
- **Hypothesis VII ( $H_0$ ):** There is no educational disparity in social awareness with regard to all questions in the questionnaire.

- **Hypothesis VIII ( $H_0$ ):** There is no disparity in social awareness levels with respect to the different sections of study.

## 5 Results

### 5.1 Demographic Features of Survey

The gender composition reveals a majority of females (73.4%) compared to males (26.6%). This can be attributed to Jana Sanskriti's predominantly female-oriented initiatives. Figure 1 also suggests it. The survey respondents are primarily from KKB, thus the gender participation rate in the children's workshop is also mirrored in the analyzed data.

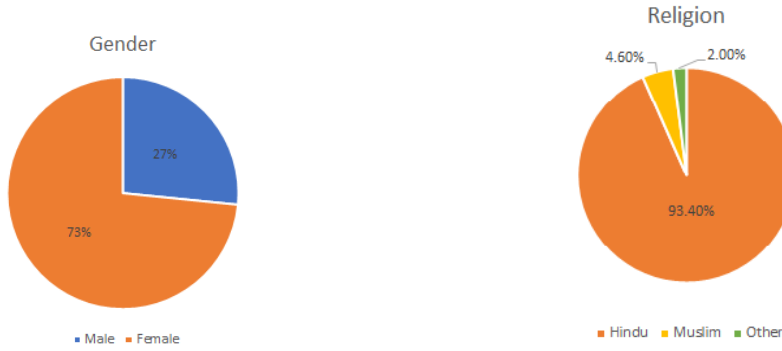


Figure 1: Gender And Religion Pie Charts

The collected data pertains to a religious composition, with 93.4% being Hindus, 4.6% Muslims, 2% belonging to other religions as illustrated in Figure 1, and a category of individuals who prefer not to disclose their religious affiliation.

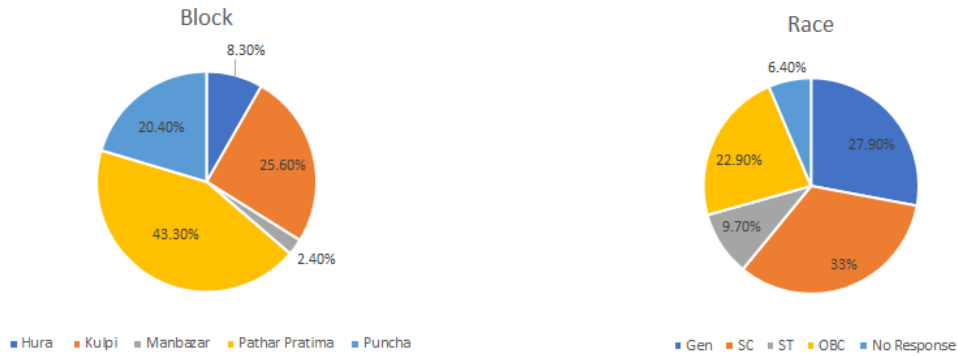


Figure 2: Region and Race Pie Charts

In terms of region, the data shows distribution as follows: Pathar Pratima - 43.3%, Kulpi - 25.6%, Puncha - 20.4%, Hura - 8.3%, and Manbazar - 2.4%. These regions are the primary areas of focus for Jana Sanskriti's activities as illustrated in figure 2. In the categorical breakdown of respondent castes, the distribution is as follows: SC - 33%, General - 27.3%, OBC - 22.9%, ST - 9.7%, and 6.4% preferred not to respond. This diverse caste composition highlights the emphasis of Jana Sanskriti on inclusive participation from individuals belonging to various communities in their sessions. Once again it is demonstrated by figure 2

We have examined the educational classes in which these respondents are enrolled, particularly within the context of KKB where the survey was conducted. KKB’s core emphasis lies in imparting diverse art forms to adolescents and children, with the aim of nurturing them into well-informed and conscientious citizens. As a result, the survey results reveal a significant majority of respondents falling within the educational range of classes 8 to 12. Most of the age group belongs to the 15-18 age category. The figure 3 demonstrates it.

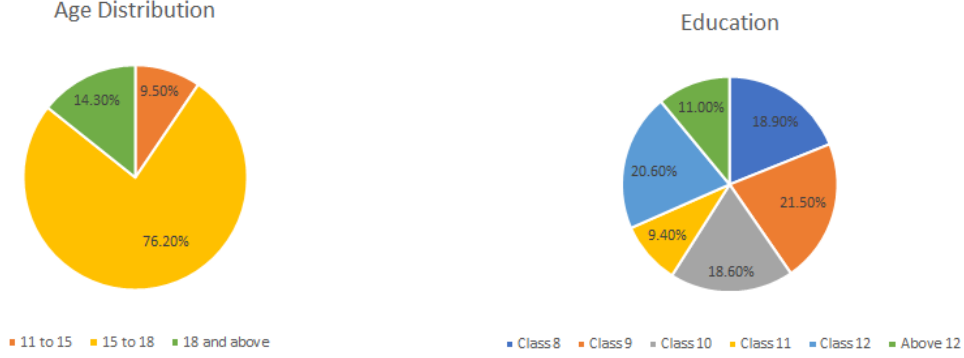


Figure 3: Age and Education Pie Charts

The survey inquiries revolve around four primary dimensions: caste, gender, religion, and political ideology. The distribution of questions is slightly varied, with caste and gender carrying greater significance, while religion and political ideology follow suit. The survey’s structure is thoughtfully crafted to comprehensively capture opinions across the dataset. We can refer to figure 4.

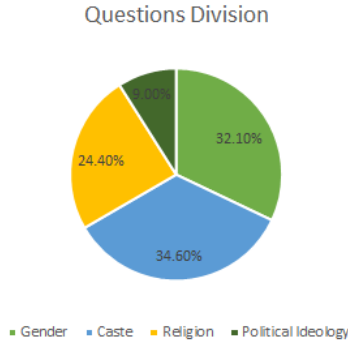


Figure 4: Questions Divisions Pie Chart

## 5.2 Analysis of Co-variate Effects

The normalized scores were calculated by first subtracting the mean of the total scores from each individual’s total score, and then dividing the result by the standard deviation of the total scores. This normalization process ensured that the scores had a mean of zero and a standard deviation of one, facilitating comparison across individuals. The categorical variables in this study include Age, categorized into ”teen-aged” (12-17 years) and ”adult” (18+); Block, District, distinguishing between South 24 Parganas and Purulia; Gender, with categories for male and female respondents; Race, divided into SC/ST, General, and OBC; and Religion and Education with Pre-Secondary, Secondary, Higher

Secondary and Above Higher Secondary. These variables were used to analyze the differences in normalized scores across various demographic and social groups. Despite the availability of additional variables, we selected the variables used in this study because many of the other variables had groups with only a single observation. The chosen variables adequately represent the key societal aspects relevant to this analysis.

### 5.2.1 Deterministic Study

To categorize the candidates into three groups—below average, average, and above average—we used the following method:

1. **Below Average:** Candidates whose scores are below the mean minus one standard deviation ( $mean - sd$ ).
2. **Average:** Candidates whose scores fall between the mean minus one standard deviation ( $mean - sd$ ) and the mean plus one standard deviation ( $mean + sd$ ).
3. **Above Average:** Candidates whose scores are above the mean plus one standard deviation ( $mean + sd$ ).

#### Block-wise Category Distribution

Table 1: Block \* category Crosstabulation

Block	Above Average	Average	Below Average	Total
Hura	3 (8.6%)	28 (80.0%)	4 (11.4%)	35
Kulpi	20 (19.4%)	69 (67.0%)	14 (13.6%)	103
Manbazar	0 (0.0%)	2 (100.0%)	0 (0.0%)	2
Pathar Pratima	40 (22.6%)	118 (66.7%)	19 (10.7%)	177
Puncha	9 (10.1%)	49 (55.1%)	31 (34.8%)	89
<b>Total</b>	72 (17.7%)	266 (65.5%)	68 (16.7%)	406

This table shows the distribution of social awareness scores across different blocks. Pathar Pratima has the highest percentage of above average scores (22.6%), while Manbazar has no candidates in the above average category.

#### District-wise Category Distribution

Table 2: District \* category Crosstabulation

District	Above Average	Average	Below Average	Total
Purulia	12 (9.6%)	78 (62.4%)	35 (28.0%)	125
South 24 Parganas	60 (21.4%)	188 (66.9%)	33 (11.7%)	281
<b>Total</b>	72 (17.7%)	266 (65.5%)	68 (16.7%)	406

The table illustrates that South 24 Parganas has a higher percentage of above average scores (21.4%) compared to Purulia (9.6%).

#### Religion-wise Category Distribution

Hindus and Muslims show different patterns in social awareness, with Muslims having a higher percentage of above average scores (30.0%) compared to Hindus (17.1%). However, the sample size for Muslims is significantly smaller.

#### Gender-wise Category Distribution

Table 3: Religion \* category Crosstabulation

Religion	Above Average	Average	Below Average	Total
Hindu	66 (17.1%)	255 (66.1%)	65 (16.8%)	386
Muslim	6 (30.0%)	11 (55.0%)	3 (15.0%)	20
<b>Total</b>	72 (17.7%)	266 (65.5%)	68 (16.7%)	406

Table 4: Gender \* category Crosstabulation

Gender	Above Average	Average	Below Average	Total
Female	62 (20.8%)	202 (67.8%)	34 (11.4%)	298
Male	10 (9.3%)	64 (59.3%)	34 (31.5%)	108
<b>Total</b>	72 (17.7%)	266 (65.5%)	68 (16.7%)	406

Females have a higher percentage of above average scores (20.8%) compared to males (9.3%), indicating higher social awareness among females.

#### Race-wise Category Distribution

Table 5: Race \* category Crosstabulation

Race Category	Above Average	Average	Below Average	Total
GEN	29 (22.8%)	85 (66.9%)	13 (10.2%)	127
OBC	19 (18.8%)	66 (65.3%)	16 (15.8%)	101
SC_ST	24 (13.5%)	115 (64.6%)	39 (21.9%)	178
<b>Total</b>	72 (17.7%)	266 (65.5%)	68 (16.7%)	406

The General category has the highest percentage of above average scores (22.8%), while the SC/ST category has the highest percentage of below average scores (21.9%).

#### Education-wise Category Distribution

Table 6: Education \* category Crosstabulation

Education Level	Above Average	Average	Below Average	Total
Above_HS	18 (39.1%)	24 (52.2%)	4 (8.7%)	46
Higher_secondary	25 (19.7%)	88 (69.3%)	14 (11.0%)	127
Pre_secondary	8 (11.6%)	50 (72.5%)	11 (15.9%)	69
Secondary	21 (12.8%)	104 (63.4%)	39 (23.8%)	164
<b>Total</b>	72 (17.7%)	266 (65.5%)	68 (16.7%)	406

Candidates with education levels above higher secondary have the highest percentage of above average scores (39.1%), while secondary level candidates have the highest percentage of below average scores (23.8%).

#### Age-wise Category Distribution

Adult candidates have the highest percentage of above average scores (28.4%), while teen-aged candidates have the highest percentage of below average scores (18.4%).

These tables and explanations provide a detailed overview of how different demographic groups are distributed across the categories of social awareness scores.

Table 7: Age \* category Crosstabulation

Age Category	Above Average	Average	Below Average	Total
Adult	27 (28.4%)	57 (60.0%)	11 (11.6%)	95
Below_teen_aged_child	1 (100.0%)	0 (0.0%)	0 (0.0%)	1
Teen_aged_child	44 (14.2%)	209 (67.4%)	57 (18.4%)	310
<b>Total</b>	72 (17.7%)	266 (65.5%)	68 (16.7%)	406

### 5.2.2 Test of Normality

The Kolmogorov-Smirnov test was performed due to the sample size being 406, which is greater than 30. The results from SPSS for the normalized scores are presented in Table 8.

Table 8: Kolmogorov-Smirnov Test for Normalized Scores

	Statistic	df	Sig.
Normalized Scores	0.044	406	0.053

Hence, at the 0.05 level of significance, the Kolmogorov-Smirnov test indicates that the data is normally distributed.

### 5.2.3 Statistical Tests for Proposed Hypotheses

#### Hypothesis I

Table 9: ANOVA Results for Age Category

Source	Type III SS	df	MS	F	Sig.
Corrected Model	14.098	1	14.098	14.730	.000
Intercept	3.613	1	3.613	3.775	.053
age_cat	14.098	1	14.098	14.730	.000
Error	385.705	403	.957		
Total	399.815	405			
Corrected Total	399.803	404			

Based on the ANOVA results in Table 9, the significance value (Sig.) for the age category is .000 (very small), which is less than the 0.05 threshold. Therefore, we reject Hypothesis I (H0): There is no gender disparity in social awareness with regard to all questions in the questionnaire. This indicates that there is a significant disparity in social awareness across different age categories at 0.05 level of significance. The average score for adults are 0.3316 while that of the teen aged child is -0.1087 with their standard deviations being extremely close to 1 implying that the adults have higher social awareness than the teen aged children. A point to note here is that we worked with 405 samples for this particular test because there was only one candidate falling in the below teen aged child category which is why we neglected that particular observation.

#### Hypothesis II

Based on the ANOVA results in Table 10, the significance value (Sig.) for gender is .000, which is less than the 0.05 threshold. Therefore, we reject the null hypothesis



Table 10: ANOVA Results for Gender

Source	Type III SS	df	MS	F	Sig.
Corrected Model	31.122	1	31.122	33.630	.000
Intercept	6.798	1	6.798	7.345	.007
gender	31.122	1	31.122	33.630	.000
Error	373.868	404	.925		
Total	404.991	406			
Corrected Total	404.991	405			

( $H_0$ ): There is no gender disparity in social awareness with regard to all questions in the questionnaire. This indicates that there is a significant gender disparity in social awareness.

The mean score for females is 0.1669, which is higher than the mean score for males, which is -0.4597, with both standard deviations being close to 1. Hence, females have a higher level of social awareness than males.

### Hypothesis III

Table 11: ANOVA Results for Block

Source	Type III SS	df	MS	F	Sig.
Corrected Model	25.217	4	6.304	6.657	.000
Intercept	.001	1	.001	.001	.973
Block	25.217	4	6.304	6.657	.000
Error	379.773	401	.947		
Total	404.991	406			
Corrected Total	404.991	405			

Based on the ANOVA results in Table 11, the significance value (Sig.) for the block is .000, which is less than the 0.05 threshold. Therefore, we reject the null hypothesis ( $H_0$ ): There is no disparity in social awareness across different blocks with regard to all questions in the questionnaire. This indicates that there is a significant disparity in social awareness across different blocks.

Based solely on averages, Manbazar has the highest social awareness, but it only contributes 2 samples. More realistically, Pathar Pratima has the highest social awareness as it has the second highest mean score and the highest sample size at 177. On the other hand Pucha has the lowest average score and a significantly large sample size at 89 indicating people living there has the lowest social awareness.

Table 12: Post Hoc Test (Tukey HSD) Significance Values for Block

	Hura	Kulpi	Manbazar	Pathar Pratima	Puncha
Hura		.953	.995	.747	.204
Kulpi	.953		1.000	.962	.001
Manbazar	.995	1.000		1.000	.853
Pathar Pratima	.747	.962	1.000		.000
Puncha	.204	.001	.853	.000	

The Post Hoc Test (Tukey HSD) results in Table 12 reveal significant differences between certain pairs of blocks. Specifically, Pathar Pratima and Puncha show a significant difference with a p-value of .000 (very small). The comparison between Kulpi and Puncha also indicates a significant difference with a p-value of .001. Hence, our observation from the Post-Hoc test does indeed match with our initial observation.

#### Hypothesis IV

Table 13: ANOVA Results for District

Source	Type III SS	df	MSe	F	Sig.
Corrected Model	19.737	1	19.737	20.697	.000
Intercept	2.901	1	2.901	3.043	.082
District	19.737	1	19.737	20.697	.000
Error	385.254	404	.954		
Total	404.991	406			
Corrected Total	404.991	405			

Based on the ANOVA results in Table 13, the significance value (Sig.) for district is .000(very small), which is less than the 0.05 threshold. Therefore, we reject the null hypothesis (H0): There is no disparity in social awareness across different districts with regard to all questions in the questionnaire. This indicates that there is a significant disparity in social awareness across the two districts.

The averages indicate that South 24 Parganas has a higher mean social awareness score (0.1472) compared to Purulia (-0.3303) with the standard deviations for both districts are close to 1. This suggests that respondents from South 24 Parganas have a higher level of social awareness than those from Purulia.

#### Hypothesis V

Table 14: ANOVA Results for Race

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	6.469	2	3.235	3.271	.039
Intercept	.054	1	.054	.054	.816
race_cat	6.469	2	3.235	3.271	.039
Error	398.521	403	.989		
Total	404.991	406			
Corrected Total	404.991	405			

Based on the ANOVA results in Table 14, the significance value (Sig.) for race is .039, which is less than the 0.05 threshold. Therefore, we reject the null hypothesis (H0): There is no disparity in social awareness across different racial categories with regard to all questions in the questionnaire. This indicates that there is a significant disparity in social awareness across different racial categories.

Direct means suggest that the General Category has the highest social awareness with a mean score of 0.1831, while the SC/ST category has the lowest with a mean score of -0.1071. The standard deviations of all three groups are close to 1, and their sample sizes are all significant.

The Post Hoc Test (Tukey HSD) results in Table 15 reveal significant differences between certain pairs of racial categories. Specifically, there is a significant difference

Table 15: Post Hoc Test (Tukey HSD) Significance Values for Race

	GEN	OBC	SC_ST
GEN		.211	.033
OBC	.211		.853
SC_ST	.033	.853	

between the General category and the SC/ST category with a p-value of .033. The comparison between other pairs does not indicate significant differences.

From these results, we infer that the General category has the highest level of social awareness, while the SC/ST category has the lowest level of social awareness among the racial categories studied.

### Hypothesis VI

Table 16: ANOVA Results for Religion

Source	Type III SS	df	MS	F	Sig.
Corrected Model	.028	1	.028	.028	.868
Intercept	.023	1	.023	.023	.880
Religion	.028	1	.028	.028	.868
Error	404.963	404	1.002		
Total	404.991	406			
Corrected Total	404.991	405			

Based on the ANOVA results in Table 16, the significance value (Sig.) for religion is .868, which is greater than the 0.05 threshold. Therefore, we fail to reject the null hypothesis (H0): There is no disparity in social awareness across different religious categories with regard to all questions in the questionnaire. This indicates that there is no significant disparity in social awareness across different religious categories. However, it is important to note that the sample size for Hindus is 386, while that of Muslims is only 20. This disparity in sample sizes may affect the reliability of the results, and further investigation with a more balanced sample size might be necessary to draw more conclusive results.

### Hypothesis VII

Table 17: ANOVA Results for Education

Source	Type III SS	df	MS	F	Sig.
Corrected Model	20.830	3	6.943	7.266	.000
Intercept	2.250	1	2.250	2.355	.126
Education (class.cat)	20.830	3	6.943	7.266	.000
Error	384.161	402	.956		
Total	404.991	406			
Corrected Total	404.991	405			

Based on the ANOVA results in Table 17, the significance value (Sig.) for education is .000, which is less than the 0.05 threshold. Therefore, we reject the null hypothesis (H0): There is no disparity in social awareness across different education levels with regard to

all questions in the questionnaire. This indicates that there is significant disparity in social awareness across different education levels.

The Post Hoc test results are summarized in Table 18.

Table 18: Significance Values for Post Hoc Test (Tukey HSD) for Education

	Above_HS	Higher_secondary	Pre_secondary	Secondary
Above_HS	-	.021	.001	.000
Higher_secondary	.021	-	.402	.187
Pre_secondary	.001	.402	-	1.000
Secondary	.000	.187	1.000	-

Based on the Post Hoc test results, we can infer the following: - Students with education levels "Above Higher Secondary" have the highest social awareness, with mean differences being significantly higher compared to other education levels. - "Pre-Secondary" students have the lowest social awareness.

This suggests that higher education levels are associated with higher social awareness among the respondents.

### 5.3 Analysis over Question Totals

We calculated the question totals and standardized them in a similar manner. We then conducted normality tests using both Kolmogorov-Smirnov (KS) and Shapiro-Wilk (SW) tests. The KS test indicated normality, while the SW test did not. Given the sample size of 64 (which is not substantially larger than 50), we employed both parametric and non-parametric tests to determine if there are any significant differences in social awareness levels among the different sections of the study. **Hypothesis VIII** ( $H_0$ ) is the hypothesis we are trying to verify in this section.

#### 5.3.1 Normality Test

Table 19: Normality Test Results

Test	Statistic	df	Sig.
Kolmogorov-Smirnov	0.104	64	0.082
Shapiro-Wilk	0.952	64	0.014

The results of the normality tests show that the Kolmogorov-Smirnov test suggests the data is normally distributed ( $p > 0.05$ ), whereas the Shapiro-Wilk test indicates non-normality ( $p < 0.05$ ). Given these conflicting results, we proceeded with both parametric and non-parametric analyses to ensure robustness.

#### 5.3.2 Parametric Test

A One-Way ANOVA was conducted to examine the differences in social awareness levels across the different question categories. The results indicated no significant differences among the categories,  $F(3, 60) = 0.706$ ,  $p = 0.552$  at 0.05 level of significance. So,  $H_0$  of Hypothesis VIII is accepted.

Table 20: Parametric Test Results

Source	Type III SS	df	MS	F	Sig.
Corrected Model	2.148	3	0.716	0.706	0.552
Intercept	0.228	1	0.228	0.225	0.637
QuestionCategory	2.148	3	0.716	0.706	0.552
Error	60.852	60	1.014		
Total	63.000	64			
Corrected Total	63.000	63			

### 5.3.3 Non-parametric Test

Table 21: Non-parametric Test Results

Test	N	Statistic	df	Sig. (2-sided)
Kruskal-Wallis Test	64	2.739	3	0.434

An Independent-Samples Kruskal-Wallis Test was performed to assess the differences in social awareness levels among the question categories. The test results showed no significant differences, with a p-value of 0.628 at 0.05 level of significance. So,  $H_0$  of Hypothesis VIII is accepted.

### 5.3.4 Final Decision

The results from both the parametric ANOVA test and the non-parametric Kruskal-Wallis test indicate no significant differences in social awareness levels among the sections of the study at 0.05 level of significance. Therefore, we conclude that there is no significant disparity in social awareness levels across the different question categories. Hence, we can conclude that there is no section of our study where the awareness level is alarmingly low compared to the others.

## 5.4 Discussion and Comparisons

[8] suggested that there is no significant disparity in social awareness across gender, stream of study (arts or science), and family status (joint or nuclear) in the Purba Medinipur district of West Bengal. However, our study claims that such differences, especially when it comes to gender, are present in the chosen regions of study from South 24 Parganas and Purulia. Their study also suggested that awareness levels among both genders are generally healthy. Both these observations could be supported by the fact that the general literacy rate as well as the male literacy rate in Purba Medinipur is much higher in comparison with both Purulia and South 24 Parganas.

Other studies like [7] and [6] found varying results with respect to gender, with [7] stating that the level of awareness about human rights among boys is slightly higher than that in girls, however, no such significant difference was found in [6], which measures awareness by reading habits. International studies like [3] and [4], based on South Africa and the USA respectively, did not find any significant difference among groups of gender or race in political or racial awareness. However, [3] did suggest that there is a significant difference across the year of study, meaning age and educational level do affect the level of awareness among individuals.

## 6 Conclusion

The results obtained from both the deterministic approach and statistical methods consistently indicate that the categorical variables significantly influence the social awareness levels of the surveyed individuals, as measured through their standardized total scores. This agreement between methods reinforces the robustness of our findings.

Our analysis also reveals no significant disparity among the question blocks concerning social awareness. This suggests that there is no section of the study where relative awareness is alarmingly low, indicating a generally uniform level of social awareness across the different question categories.

We recommend targeting educational initiatives towards groups with relatively low awareness. Jana Sanskriti is actively working towards this goal through innovative approaches like theatre and plays, which can effectively convey messages and promote social awareness.

Further detailed results, including those obtained from individual question blocks, provide additional insights that support these conclusions. These results will be available soon on the GitHub repository (link to be uploaded soon).

## References

- [1] Jones, DE, Greenberg, M and Crowley, M ; Early social-emotional functioning and public health: The relationship between kindergarten social competence and future wellness, *American Journal of Public Health*, e-View Ahead of Print, doi: 10.2105/AJPH.2015.302630
- [2] Huynh S.V ; Social Awareness and Responsible Decision Making of Students in Grade 4 and 5 in Vietnam *Journal of Education and Human Development* December 2018, Vol. 7, No. 4, pp. 7-15
- [3] Badaru, K. A. & Adu, E. O. (2021). The Political Awareness and Participation of University Students in post-Apartheid South Africa. *Research in Social Sciences and Technology*, 6(3), 1-24.
- [4] Aldana, A., Rowley, S. J., Checkoway, B., & Richards-Schuster, K. (2012). Raising Ethnic-Racial Consciousness: The Relationship Between Intergroup Dialogues and Adolescents' Ethnic-Racial Identity and Racism Awareness. *Equity & Excellence in Education*, 45(1), 120–137. <https://doi.org/10.1080/10665684.2012.641863>
- [5] Ahmad S., Dar B.A., Lone J.A. ; Reading Habits and Attitudes of Undergraduate Students: A Gender Based Comparative Study of Government Degree College (Boys) and Government Degree College for Women, Anantnag (J&K) ; *Library Philosophy and Practice* (e-journal) (2019), 2351
- [6] Binjha P.B.; Students' Awareness of Human Rights Education at Higher Secondary School level; *International Journal of Social Science And Human Research* (2022), 4746-4749
- [7] Begum D.; A comparative study on Perception of Human rights between male and female students at the undergraduate level.; *Turkish Journal of Computer and Mathematics Education* Vol.12 No.12 (2021), 3413-3416
- [8] Bera A.,Ashutosh S. ; Study of Social Awareness among School Students in Purba Medinipur District of West Bengal; *Central Asian Journal Of Social Sciences And History* Volume: 04 Issue: 05 — May 2023 (ISSN: 2660-6836) (ISSN: 2660-6836)