



Attitude Towards Sabooj Sathi Scheme

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Abstract

The main objective of this study was to construct a tool for assessing students' attitudes toward the "Sabooj Sathi scheme" and to establish its reliability and validity. In the study total of 840 school-going adolescents in West Bengal were involved. Item analysis revealed that, out of the initial thirty items in the scale draft, twenty were deemed valid for inclusion in the final scale. The final scale underwent item-total correlation analyses, confirming its high item validity. The final scale demonstrated strong reliability, with a Cronbach's alpha coefficient of 0.856 and a Split-Half reliability coefficient of 0.857.

Keywords

Attitude Scale, Sabooj Sathi Scheme, Reliability, Validity, West Bengal

1. Introduction

In the 2015-2016 Budget speech, the Finance Minister of West Bengal introduced a program called the "Sabooj Sathi scheme". This initiative was designed to supply bicycles to around 4 million students in grades IX to XII attending government-run and government-aided schools and Madrasahs in West Bengal. The distribution of bicycles and the identification of beneficiaries were carried out at the district and local levels. The primary goal of the Sabooj Sathi scheme was to enhance the accessibility of education for school-going children, particularly in rural areas, by providing them with bicycles. The scheme aimed to decrease the dropout rate among students and promote regular school attendance. Eligible students received bicycles free of charge, which were intended to help them commute to and from school, especially in areas with limited transportation options (West Bengal State Portal, 2023). The primary focus of the scheme was to empower

female students by ensuring they had the means to attend school consistently. This was especially significant in regions where cultural and logistical barriers might discourage girls from pursuing education. By supplying bicycles, the scheme aimed to make education more reachable for students living in remote or rural areas, where schools might be situated far from their homes. Providing bicycles was expected to increase attendance rates, as it made it easier for students to travel to school regularly. Additionally, the scheme aimed to promote eco-friendly transportation and contribute to a cleaner environment by encouraging non-motorized transportation methods (Govt of West Bengal, 2023). The attitude of students towards the Sabuj Sathi Scheme in West Bengal is generally positive and appreciative. Attitude towards the Sabuj Sathi Scheme is an individual's predisposition to think, feel, perceive, and behave towards the scheme. It is an aggregated measure of a tendency to engage in or avoid cycling and a belief that the Cycle is useful or useless. Many students and their families are grateful for the Sabuj Sathi Scheme as it provides them with free bicycles. Female students, in particular, feel empowered by the scheme. Many students believe that the Sabuj Sathi Scheme has made education more accessible. Some students recognize that the scheme has a positive impact on their families' socio-economic status. Some students also appreciate the environmental aspect of the scheme.

1.1 Rationale of the study

The study's rationale lies in the necessity to evaluate the perspectives of secondary and higher secondary students in West Bengal concerning the effectiveness and benefits of the government's Sabooj Sathi scheme.

1.2 Objectives of the study

The objective of the present study was to construct a scale to measure attitudes toward the Sabooj Sathi Scheme.

2. Methodology

To fulfill the objectives of the present study, the researchers adopted a Descriptive Survey method.

2.1 Participants

The study comprised 840 school-going adolescents who were chosen at random from Government Sponsored Higher Secondary Schools located in South 24 Parganas and Purulia Districts in West Bengal. The gender distribution among the participants was skewed, with a smaller portion being males (288) and the majority being females (552).

2.2 Measures

The study followed a two-phase methodology. In the initial phase, the participants were given the Attitude Towards Sabooj Sathi Scheme Scale to evaluate the item analysis of the preliminary tool. Subsequently, in the second phase, the Scale was administered again to evaluate its reliability and validity.

3. Results

Preparation of items in the Draft Tool

During the development of the draft tool, thirty items (30) were chalked out with the help of teachers, my colleagues, and my co-researcher. To each item, a five-point Likert-type scale, ranging from strongly disagree to strongly agree, was attached. With proper instruction, a draft scale was constructed and administered to try out a sample of a total of 840 (male 288 and female 552) school-going adolescents.

Item Analysis

To perform item analysis, data from the 840 participants were subjected to the Likert Method (Edwards, 1957). This involved organizing the response sheets based on their total scores. Subsequently, the top 33% and bottom 33% of participants, representing the high and low groups respectively (comprising 280 individuals in each group), were chosen. The ability of each item to differentiate between these two groups was evaluated through t-tests. Items that produced statistically significant t-values (with a significance threshold of p-value < 0.05 or t-value > 1.96) were considered effective in distinguishing between the high and low groups. After conducting item analysis on the preliminary scale, only twenty items were deemed valid and are presented in Table 1 below.

Table 1. Item Analysis: 'Attitude towards Sabooj Sathi Scheme Scale'

Question No.	t-value	Level of Significance
Q1	5.935	0.000
Q2	4.400	0.000
Q3	8.104	0.000
Q4	10.084	0.000
Q5	8.856	0.000
Q6	10.302	0.000
Q7	12.382	0.000
Q8	3.618	0.000
Q9	8.573	0.000
Q10	5.311	0.000
Q11	10.654	0.000
Q12	7.015	0.000
Q13	10.275	0.000
Q14	9.773	0.000
Q15	5.376	0.000
Q16	10.684	0.000
Q17	3.418	0.001
Q18	7.106	0.000
Q19	6.376	0.000

Attitude towards Sabooj Sathi Scheme Scale

The final scale developed in the study is a 5-point Likert scale consisting of 20 positive items. Participants are provided with response options that typically span from 'Strongly Agree' to 'Strongly Disagree.'

Scoring Method:

The tool was developed in such a way that there were no right or wrong answers. Participants could respond by marking a tick (✓) next to one of the five alternatives for each statement. Each positive item is assigned weights of 5, 4, 3, 2, and 1 for the respective categories of 'Strongly Agree,' 'Agree,' 'Neutral,' 'Disagree,' and 'Strongly Disagree.' High scores on the scale indicate a more positive attitude towards the Sabooj Sathi Scheme.

A. Validity

Content Validity-

To ensure the content validity of the tool, the researcher shared the instrument with subject experts in the fields of education and psychology. Based on their valuable input and advice, necessary adjustments and improvements were incorporated. Consequently, the 'Attitude towards the Sabooj Sathi Scheme Scale' was confirmed to have content validity.

Item Validity

To confirm the validity of the Attitude towards the Sabooj Sathi Scheme Scale, item-total correlation techniques were employed. To assess its item validity, researchers computed item-total correlations. The results, which were significantly higher than the 0.01 level of significance, revealed robust correlations ranging from 0.28 to 0.68, as illustrated in Table 2. So, the items of significant correlation with the total were retained as valid items. Additionally, the inter-item correlations, spanning from 0.01 to 0.58, provided support for the tool's discriminant validity.

Table 2: Item-total and Inter-Items Correlation Matrix of Attitude towards Sabooj Sathi Scheme Scale

	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	10	11	12	13	14	15	16	17	18	19	20
Q1	-																			
Q2	0.32	-																		
Q3	0.15	0.47	-																	
Q4	0.32	0.15	0.14	-																
Q5	0.15	0.07	0.13	0.34	-															
Q6	0.30	0.42	0.42	0.35	0.23	-														
Q7	0.21	0.30	0.28	0.37	0.40	0.45	-													
Q8	0.17	0.05	0.19	0.02	0.09	0.14	0.08	-												
Q9	0.25	0.13	0.28	0.39	0.25	0.24	0.33	0.05	-											
Q10	0.29	0.20	0.08	0.23	0.17	0.23	0.04	0.42	0.09	-										
Q11	0.17	0.28	0.29	0.47	0.41	0.35	0.49	0.00	0.39	0.05	-									
Q12	0.19	0.24	0.25	0.33	0.26	0.30	0.40	0.04	0.32	0.00	0.39	-								

Q13	0.23	0.10	0.10	0.40	0.48	0.31	0.53	0.06	0.21	0.03	0.51	0.29	-							
Q14	0.23	0.01	0.03	0.40	0.16	0.31	0.17	0.19	0.21	0.25	0.22	0.31	0.31	-						
Q15	0.21	0.02	0.08	0.15	0.19	0.27	0.10	0.28	0.01	0.36	0.03	0.05	0.04	0.29	-					
Q16	0.26	0.09	0.15	0.42	0.45	0.29	0.56	0.07	0.33	0.02	0.45	0.17	0.58	0.33	0.09	-				
Q17	0.32	0.01	0.06	0.00	0.06	0.17	0.04	0.25	0.04	0.36	0.04	0.02	0.02	0.24	0.35	0.12	-			
Q18	0.29	0.18	0.21	0.25	0.09	0.34	0.29	0.17	0.09	0.29	0.20	0.12	0.16	0.20	0.28	0.15	0.19	-		
Q19	0.28	0.37	0.21	0.26	0.19	0.40	0.37	0.18	0.16	0.27	0.37	0.24	0.17	0.20	0.32	0.15	0.17	0.42	-	
Q20	0.29	0.25	0.15	0.52	0.45	0.36	0.51	-	0.32	0.04	0.53	0.32	0.46	0.19	0.04	0.46	0.02	0.16	0.35	-
								0.12												
Total	0.53	0.42	0.44	0.64	0.55	0.66	0.68	0.28	0.50	0.41	0.65	0.51	0.60	0.50	0.38	0.62	0.29	0.48	0.57	0.62

B. Reliability

The reliability of the twenty-question tool was evaluated using both Cronbach's Alpha (α -Coefficient) and the Split-Half Coefficient. For Cronbach's Alpha, the overall reliability coefficient for the entire tool was found to be 0.856. This score indicates a very high level of internal consistency, suggesting that the items in the tool are highly reliable in measuring attitudes towards the Sabooj Sathi Scheme. To assess the Split-Half Coefficient, the researcher divided the statements of the tool into two halves, with odd-numbered statements forming one half and even-numbered statements forming the other half. Then, the researcher calculated the reliability coefficient for the entire test using the 'Spearman-Brown Prophecy Formula.' The result was a reliability coefficient value of 0.857, which also indicates very high reliability for the tool. This confirms the consistency and reliability of the tool in measuring attitudes toward the scheme.

5. Conclusion

The study found that the scale demonstrated high item validity and strong content validity, with input from subject experts leading to modifications that enhanced the tool's quality. Reliability assessments, including Cronbach's Alpha and the Split-Half Coefficient, indicated very high internal consistency and reliability for the tool, reinforcing its suitability for measuring attitudes towards the Sabooj Sathi Scheme. Overall, the "Attitude towards Sabooj Sathi Scheme Scale" has been successfully developed and validated as a robust instrument, providing valuable insights into the attitudes of students in West Bengal towards this scheme. It can serve as a valuable tool for future research and policymaking in the region.

References

- Govt of West Bengal (2023).** Sabooj Sathi. <https://wbsaboojsathi.gov.in/>
- West Bengal State Portal (2023).** Sabooj Sathi. <https://wb.gov.in/government-schemes-details-saboojsathi.aspx>

Appendix

Survey of students' opinions about the Sabooj Sathi Scheme

Student Name-

School Name-

Class-

Instructions

A list of some of the statements is given in the aspiration. Read each statement carefully and indicate your response to the extent to which you agree or disagree with it by ticking the symbol (√) in the box to the right. Your response to each statement is very important in research. Your responses will be kept strictly confidential and will not be used for any purpose other than research.

Sl.No.	Statement	Statement				
		Strongly disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly agree (5)
Sabooj Sathi scheme-						
1.	Is useful for the students.					
2.	Makes the students school-oriented.					
3.	Increases school attendance rate.					
4.	Helps in quality improvement of education.					
5.	Assists the students in leading healthy lifestyles.					
6.	Encourages school orientation.					
7.	Increases confidence and self-esteem.					
8.	Assists in solving transportation problems.					
9.	The quality of bicycles provided is good.					
10.	It is a good initiative for rural areas.					
11.	Encourages higher education.					
12.	Encourages participation in co-curricular activities.					
13.	Helps in overall development.					
14.	Encourages further studies by enrolling in school.					
15.	Helps to develop an environment-friendly mentality.					
16.	Helps to improve the overall quality of education.					
17.	Improves cycling skills.					
18.	Makes easy access to bicycles.					
19.	Brings the joy of owning a bicycle.					
20.	Helps to increase educational mobility.					