

# **SYNOPSIS**

**Subject:- Research**

**Submitted to ,**

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**Introduction:-** “Life is a precious gift by God and it should be handled with care.”

Road safety is a major public health concern worldwide, especially among school-going children who are vulnerable due to their lack of awareness, immature judgment, and risk-taking behaviour. According to the World Health Organization, road traffic injuries are one of the leading causes of death and disability among children and adolescents.

Children frequently use roads as pedestrians, cyclists, or passengers, but many lack adequate knowledge regarding traffic rules, road signs, and safe practices. This increases their risk of accidents and injuries. In developing countries like India, rapid urbanization, increased number of vehicles, and inadequate road safety education further contribute to this problem.

Education plays a vital role in promoting safe behaviours among children. A structured teaching programme can effectively improve their knowledge and awareness regarding road safety measures such as use of zebra crossing, traffic signals, helmet use, and safe walking practices.

School is an ideal setting for imparting such knowledge, as children are in a learning phase and can easily adopt healthy and safe behaviours. By educating them early, it is possible to reduce the incidence of road traffic accidents and promote a culture of safety.

Therefore, this study aims to assess the effectiveness of a structured teaching programme regarding road safety among school-going children in a selected school at Bankura.

**Background of the study:-** Road traffic accidents are a leading cause of injury and mortality among school-aged children, often resulting from ignorance, carelessness, and a lack of proper road safety knowledge. Studies indicate that school-going children, often possess inadequate or moderate knowledge of traffic safety. A structured teaching programme (STP) serves as a targeted intervention to bridge this knowledge gap. Studies have shown that a significant number of road accidents involving children occur near schools and residential areas. Lack of knowledge about traffic signals, road signs, use of zebra crossings, and safe road-crossing practices contributes to this issue. Moreover, children often do not receive formal education on road safety in a structured manner.

Education is considered one of the most effective strategies to bring about behavioural change. A structured teaching programme can help improve children's knowledge, attitude, and practices regarding road safety. Schools provide an ideal environment to implement such educational interventions, as children are more receptive to learning and can develop lifelong safe habits.

In areas like Bankura, where awareness and resources may be limited, there is a need to educate children about road safety systematically. Hence, this study focuses on assessing the effectiveness of a structured teaching programme in improving road safety knowledge among school-going children.

### **NEED /JUSTIFICATION FOR THE STUDY:-**

- Increasing incidence of road traffic accidents among children
- Lack of awareness regarding road safety rules
- Importance of early education in preventing injuries
- Need to evaluate effectiveness of teaching programmes in schools

**3)Problem Statement:-** A study to assess the effectiveness of structured teaching programme on knowledge regarding road safety among school going children in a selected school at Bankura.

### **4)Objectives:-**

- To assess the pre test level of knowledge regarding road safety among school going children in a selected school at Bankura.
- To assess the post test level of knowledge regarding Road safety among school going children after the structured teaching programme.
- To evaluate the effectiveness of structured teaching programme regarding road safety among school going children.
- To find out the association between pre-test knowledge scores and selected demographic variables (such as age, gender, class, previous exposure to road safety education)

### **5) Literature Review:-**

- **Yue Yen Lee et al. (2017)** conducted a study , titled "*Road traffic accidents in children: the 'what', 'how' and 'why'*" examined the epidemiology, circumstances, and outcomes of road traffic accidents (RTAs) involving children in **Singapore**. The study adopted a retrospective design and analysed 1,243 cases of children aged 0–16 years presenting to a tertiary care emergency department. The findings revealed that the majority of victims were motor vehicle passengers, followed by pedestrians and cyclists. Notably, pedestrians accounted for the highest proportion of severe injuries. The study emphasized that preventive strategies such as promoting the use of seat belts and helmets, enhancing road safety education, and implementing stricter traffic regulations are essential to reduce both the incidence and severity of RTAs among children. Furthermore, infrastructural improvements, including minimizing roadside parking and enforcing speed control measures, were recommended.
- **Ha Na Jeong and Chan Yong Park (2025)** in **South Korea** examined the differences in pedestrian injury characteristics between preschool children (4–5 years) and early school-aged children (6–7 years). The study utilized secondary data from a national trauma surveillance system, analysing 413 cases of paediatric pedestrian injuries. temporal patterns showed that injuries were more frequent during evening



hours, particularly around 5–6 PM, and varied by day and month between the two age groups. Importantly, children with severe injuries (high Injury Severity Score) had significantly higher mortality rates. The study highlights the importance of understanding age-specific injury patterns to design targeted preventive strategies, improve trauma care systems, and enhance child road safety measures. However, as a secondary data analysis, the study was limited by the availability of variables and lacked detailed contextual and behavioural information.

### **Variables:-**

- a) Independent Variables:- Structured teaching programme on road safety.
- b) Dependent Variables:- Knowledge regarding road safety of school going children
- c) Demographic Variables:- Age, Gender

### **Operational Definitions:-**

- Effectiveness:- In this study effectiveness refers to the extent to which the teaching program improves the knowledge of school going children regarding road safety. It will be measured through pre-test and post test assessment of knowledge by structured knowledge questionnaire. Tool has to be developed and validated.
- Structured Teaching Programme:- The structured teaching programme refers to a planned, systematic, and organized educational session to enhance knowledge of school going children regarding road safety, covering topics such as traffic rules, road signs, pedestrian safety, and safe behaviors on roads, delivered through lectures, charts
- Knowledge on Road Safety:- Knowledge on Road safety refers to the level of correct responses observed through structured questionnaire from school-going children about road -safety.
- School Going Children:- School going Children aged 8 to 16 yrs of old boys and girls both in a selected school of Bankura.

### **Research Hypotheses**

- There will be a significant increase in the knowledge scores regarding road safety among school-going children after the implementation of the structured teaching programme.
- There will be a significant association between pre-test knowledge scores and selected demographic variables such as age, gender, class, and previous exposure to road safety education.

**7). Research Design:-** Pre-experimental one group pre-test post-test design.

Type of study:- Experimental study

**8. Settings:-** selected school in Bankura, West Bengal.

### **9) Population & Sample:-**

**Population:-** 8 to 16 yrs old school going children in selected school.

**Sample:-** 100 students of 8 to 16yrs old.

### **10) Sampling Techniques & Sampling Criteria:-**

**Sampling technique:-** Non-probability convenient sampling.

**Sampling Criteria:-**

- **Inclusion Criteria:-** School-going children studying in the selected school.
  - Children within a specific age group (e.g.:-8 to 16 yrs of children)
  - Children whose parents/guardians provide consent .
- **Exclusion Criteria:-**
  - Children who are not willing to participate
  - Children with serious illness or conditions that prevent participation.

**11) Sample size calculation & feasible sampling size:-** Approximately 100 participants.(depending on availability)

**Formula( For Pre- Experimental study)**

Formula (for pre-experimental study):

$$n = \frac{(q)}{d^2}$$

Where:

- $Z = 2.05$  (96% confidence level)
- $p = 0.5$  (estimated proportion)
- $q = 1 - p = 0.5$
- $d = 0.1$  (allowable error)

Calculation:

$$n = \frac{(0.5)}{(0.1)^2} n = 105$$

## **12) Data Collection tools & techniques:-**

### **Tools:-**

1. Section A:- Socio Demographic Data
  - Age,
  - Gender
  - Class/standard
  - Previous knowledge of road safety
  - Source of information
2. Section B:- Structured knowledge questionnaire  
Some MCQ on:-
  - Traffic rules,
  - Road signs
  - Pedestrian safety
  - Use of signals.

### **Data collection techniques:-**

- Self-administered questionnaire
- Teaching intervention (Structured Teaching Programme)

## **13. Steps of Data Collection**

The data collection procedure will be carried out in the following steps:

### **1:) Administrative Permission**

Obtain permission from school authority

Explain purpose of study.

### **2:) Selection of Sample**

Select school children based on inclusion criteria

### **3) Conduct Pre-test (Assess knowledge by structured questionnaire)**

### **4:) Implementation of Structured Teaching Programme**

Provide teaching on road safety:

- Traffic signs
- Road crossing rules
- Safety measures

### **5:) Post-test**

Conduct post-test using same questionnaire after specified duration (Usually after 7 days)

#### **14) Ethical Consideration:-**

- Obtain permission from the IRB
- Obtain permission from school authority
- Obtain informed consent from participants (and parents if required)
- Ensure confidentiality and anonymity
- Participation is voluntary
- Right to withdraw at any time
- No harm or risk to participants

#### **15) Plan of Statistical Analysis**

The collected data will be analysed using:

##### **Descriptive Statistics**

Frequency

Percentage

Mean

Standard deviation

##### **Inferential Statistics**

Paired t-test → to compare pre-test and post-test knowledge

Chi-square test → association with demographic variables.



## **17. References:-**

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