

# A Study on Movement Control Motor Fitness Variables Among Bicycle Beneficiaries and Non-Beneficiaries of Secondary School Children

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**Abstract:** *Cycling is a great way to exercise and achieve healthy levels of fitness and activity. Using bicycle to get around is a great way to stay active as part of everyday activities. Cycling is a healthy, low-impact exercise that can be enjoyed by children. Cycling has numerous advantages that can directly affect quality of life, as it provides benefits both physically, emotionally and ecologically. During cycling, most of the body's muscles are activated. The leg muscles are responsible for the pedaling movement; the abdomen and back muscles stabilize the body on the cycle and cushion external influences; and the shoulder-arm muscular system supports the body at the handlebars. All this trains and tightens up the muscular system, making it stronger and able to function efficiently. Cycling has a considerable relaxing effect due to its uniform, cyclic movement which stabilizes the physical and emotional functions of the body.*

**Keywords:** Cycling

## I. INTRODUCTION

Physical activity has many health benefits, but recently many young people do not meet recommended levels of physical activity. Chillon et al. suggested that active commuting, especially bicycling, may provide an opportunity to increase daily physical activity levels. There are number of studies that showed a positive relationship between bicycling and health benefits in children and adolescents. Children who bicycle to school have significantly higher levels of physical activity than those who travel by walk. The aim of research to know importance of bicycle riding of high school students of kanakapura taluk, Ramanagaram district, Karnataka to seek a way to improve and promote the use of bicycling to school by high school students. The purpose of the research is to study on the movement control motor fitness variables Balance and co-ordination among bicycle beneficiaries and non-beneficiaries of secondary school children.

### 1.1 Objectives of the Study

The aim and objective of the study is to know the benefits of bicycle riding at high school level.

### 1.2 Hypotheses

It was hypothesized that there may not be any significant difference in movement control motor fitness variables between bicycle beneficiaries and non-beneficiaries.

## II. METHODOLOGY

- **Research Type:** Descriptive survey research was used.
- **Selection of Sample:** Population of the present study involves the secondary school students of VIII, IX and X standard of Government High Schools/Junior Colleges of Kanakapura taluk, Ramanagaram District, Karnataka State and their age range from 14 to 16 years.

In this study the researcher used simple random technique of probability sampling. For this 240 students were selected randomly. There were 120 bicycle beneficiaries who have availed bicycles from the government and these beneficiaries are coming to the school by bicycle around 3 to 5 km daily since 3 months and 120 non-beneficiaries who do not have any bicycle facilities and they are nearer to the school for less than 1 km in the sample.



- **Selection of Variables:** Movement control motor fitness variables Balance measured by Stork balance stand test in minutes, seconds and Co-ordination is measured by Alternate hand wall toss test in numbers with respect to time, were selected as criterion variables and tested with standardized tests.
- **Statistical Techniques Applied:** The statistical techniques used in the study are mean, standard deviation and t-test. In this study independent t-test was used to compare the criterion variables between bicycle beneficiaries and non-beneficiaries.

III. ANALYSIS AND INTERPRETATION

To test stated hypothesis t-test was used and obtained results have been shown in table-I as below

Table-I: Comparison of Balance and Co-ordination between secondary school Bicycle beneficiaries and non-beneficiaries:

Group		N	Mean	Standard Deviation	't' Value and sig. level
Balance	Bicycle Beneficiaries	120	9.760	10.725	2.12*
	Bicycle Non-Beneficiaries	120	7.169	7.928	
Co-ordination	Bicycle Beneficiaries	120	24.283	7.423	2.06*
	Bicycle Non-Beneficiaries	120	22.225	7.980	

\*Significant at 0.05 level

Fig.1: Bar graph shows comparison of Balance and Co- ordination between secondary school bicycle beneficiaries and non-beneficiaries.

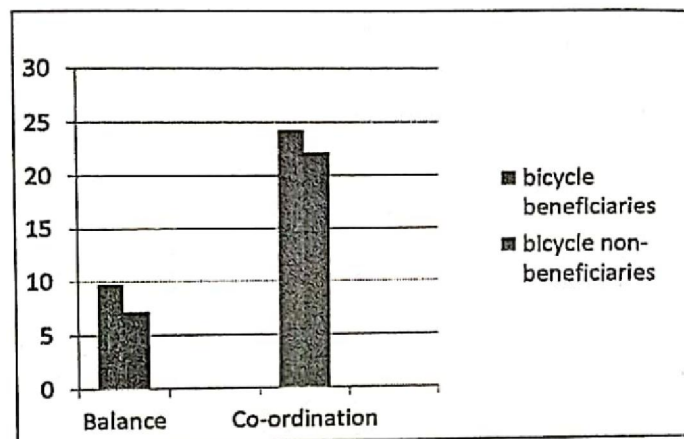


Table-I shows that the mean and standard deviation of bicycle beneficiaries and non-beneficiaries of secondary school students. The obtained 't' values 2.12 and 2.06 are greater than table value 1.97 at 0.05 level (df=238) and it is significant. So, stated hypothesis is rejected and an alternate hypothesis has been accepted that "there was a significant difference in the movement control motor fitness variables such as balance and co-ordination between bicycle beneficiaries and non-beneficiaries" It concludes that bicycle beneficiaries had better balance and co-ordination than non-beneficiaries.

#### **IV. DISCUSSION OF RESULTS**

The findings of this research have shown that bicycle beneficiaries had better movement control than non-beneficiaries. The cycling is important source of physical activity. The cycling exercise increases balance and co-ordination and also helps to burn extra calories to maintain an ideal weight. It was found that cycling was a great way to exercise and achieve healthy levels of motor fitness. Using bicycle to get around is a great way to stay active as part of everyday activities. Cycling is a healthy, low-impact exercise that can be enjoyed by children. Cycling has numerous advantages that can directly affect quality of life, as it provides benefits physically to maintain good health and active lifestyle can contribute to the development of life-long healthy lifestyle in children.

#### **V. SUGGESTIONS AND RECOMMENDATIONS OF THE STUDY**

- The present study suggests that cycling exercises have important role to play in developing motor fitness among students.
- The present research offers an advantages and disadvantages of using bicycle or non-bicycle modes of transportation and also offers to government authorities and policy makers of the school to encourage the use of bicycles.
- The study will throw a light on the youth population the routine use of bicycle to travel not only benefits them but also to the environment.
- The result will strengthen the idea of introducing eco-friendly mode and travel preserving environment through educating the youth regarding bicycle raiding.

#### **VI. CONCLUSION**

It was found that there was significant difference in balance and co-ordination between secondary school bicycle beneficiaries and non-beneficiaries.

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