

## Impact of Weights and Measurement among Rural High School Students

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Received: 23.08.2017 | Revised: 28.09.2017 | Accepted: 1.10.2017

### ABSTRACT

The present study aimed to determine the level of awareness of standard weights and measure among rural high school students. A total sample size was 150 students from 5 high school located in village of Dharwad taluka. The results showed that students of Amminbhavi village students had better knowledge regarding standard weights and measures with boys having mean value of 6 and girls having mean value of 5.33. Followed by that Hebballi, Nigadi and Tadakod the least knowledge on Managundi village. Among the three factors regarding standard weights and measures majority of boys (60%) and girls (53.33%) had expressed that they have knowledge to check the right position of needle in the Balance scale while purchasing any food items.

**Key words:** Consumer awareness, knowledge level of students, Standard weight, Standard

### INTRODUCTION

Each of us is a consumer, every consumer consumes different commodities and services from our birth to death. All business activities revolve around the consumer. In the words of Mahatma Gandhi (1890) “A customer is the most important visitor on our premises, he is not dependent on us. We dependent on him, he makes favour to us, not we favour on him”. Today’s consumer is said to be king of the market. The form of exploitation may be looks-alike, less weight, inferior quality of goods and services and exorbitant prices. So,

there is need of creating awareness in our country. Higher consumer awareness, lower the exploitation and vice versa. Consumer awareness may be defined as clearly, understanding the need and priority of purchasing, conditions and warranties of purchase agreement and rights and duties of consumer. Indian consumer is a victim of exploitation in the form of substandard goods and services, false guarantee, exorbitant prices and fraudulent tactics. Creation of consumer awareness is a big task in our vast country.

**Cite this article:** Shreedevi, M., Renuka, S. and Surekha, S., Impact of Weights and Measurement among Rural High School Students, *Int. J. Pure App. Biosci.* 5(5): 36-39 (2017). doi: <http://dx.doi.org/10.18782/2320-7051.5519>

Due to some impediments such as, illiteracy, indifferent attitude, ignorance of law, lengthy legal procedures etc, and the degree of consumer awareness is very low in India. The consumer must be aware regarding his rights and the available legal measures against exploitation. In order to create consumer awareness and safeguarding their interest, the Government of India has enacted Prevention of food adulteration Act 1954, Standards of Weights and Measures Act 1956, Indian Standards Institution Act 1952, Essential Commodities Act 1955, Consumer Protection Act 1986 etc. The objective of study is standard weights and measures among rural high school students.

The present study was conducted in Dharwad taluka. Five village in Dharwad taluka were selected. One govt. high school was selected from each village and 30 students both boys and girls selected randomly from the 9<sup>th</sup> std. students. The total sample comprised 150 from dharwad taluka for intervention programme, 30 students were selected who had scored less knowledge among the selected school. The folder and lecture cum demonstration method was introduced to impart the knowledge on standard weights and measure. Data regarding awareness of standard weights and measure was elicited through the structured questionnaire the collected data was analyzed with the help of percentage, frequency and Mean value, t-value.

## MATERIAL AND METHODS

**Table 1: Socio-Demographic profile of the selected respondents**

N=150

GENERAL INFORMATION	I (Hebballi) n=30	II (Nigdi) n=30	III (Tadakod) n=30	IV (Aminbhavi) n=30	V (Managundi) n=30	Total (150)
<b>Age of parents</b>						
<b>Mother</b>						
Young (<30 years)	5(16.67)	5(16.67)	5(16.67)	7(23.33)	11(36.67)	33(22.00)
Middle (31-50 years)	23(76.67)	25(83.33)	22(73.33)	20(66.67)	17(56.67)	107(71.33)
Old (>50 years)	2(6.67)	-	3(10.00)	3(10.00)	2(6.67)	10(6.66)
<b>Father</b>						
Young (<30 years)	15(50.00)	10(33.33)	11(36.67)	10(33.33)	12(40.00)	58(38.66)
Middle (31-50 years)	12(40.00)	18(60.00)	15(50.00)	19(63.33)	16(53.33)	80(53.33)
Old (>50 years)	3(10.00)	2(6.67)	4(13.33)	1(3.33)	2(6.67)	12(8.00)
<b>Religion</b>						
Hindu	20(66.66)	17(56.66)	23(76.66)	22(73.33)	25(83.33)	107(71.33)
Muslim	6(20.00)	3(10.00)	4(13.33)	2(6.66)	3(10.00)	18(12.00)
Christianity	4(13.33)	10(33.33)	3(10.00)	6(20.00)	2(6.66)	25(16.66)
<b>Type of family</b>						
Nuclear	23(76.67)	22(73.33)	10(33.33)	20(66.67)	22(73.33)	97(64.66)
Joint	7(23.33)	8(26.67)	20(66.67)	10(33.33)	8(26.67)	53(35.33)
<b>Education of parents</b>						
<b>Mother</b>						
Illiterate	10(33.33)	13(43.33)	12(40.00)	14(33.33)	10(26.67)	59(39.33)
Primary school (1 <sup>st</sup> to 4 <sup>th</sup> )	5(16.66)	10(33.33)	7(23.33)	9(30.00)	7(20.00)	38(25.33)
Middle school (5 <sup>th</sup> -7 <sup>th</sup> )	5(16.66)	3(10.00)	3(10.00)	4(13.33)	10(33.33)	25(16.66)
High school (8 <sup>th</sup> -10 <sup>th</sup> )	5(16.66)	4(13.33)	4(13.33)	3(10.00)	3(10.00)	19(12.66)
PUC	5(16.66)	-	4(13.33)	-	-	9(6.00)
Graduate and above	-	-	-	-	-	-
<b>Father</b>						
Illiterate	6(20.00)	10(33.33)	8(26.67)	7(23.33)	10(33.33)	41(27.33)
Primary school (1 <sup>st</sup> to 4 <sup>th</sup> )	12(40.00)	8(26.67)	12(40.00)	10(33.33)	15(50.00)	57(38.00)
Middle school (5 <sup>th</sup> -7 <sup>th</sup> )	3(10.00)	4(26.66)	4(26.66)	5(33.33)	2(13.33)	18(12.00)
High school (8 <sup>th</sup> -10 <sup>th</sup> )	4(26.66)	6(40.00)	3(10.00)	5(33.33)	1(6.66)	19(12.66)
PUC	3(10.00)	2(6.67)	3(10.00)	3(10.00)	2(6.67)	13(8.66)
Graduate and above	2(6.67)	-	-	-	-	2(1.33)
<b>occupation of parents</b>						
Agriculture	24(80.00)	20(66.67)	27(90.00)	20(66.67)	33(110.00)	124(82.66)
Teachers	5(16.66)	-	-	-	-	5(3.33)
Driver	2(6.67)	4(13.33)	2(6.67)	2(6.67)	1(3.33)	11(7.33)
Carptery	1(3.33)	6(20.00)	1(3.33)	2(6.67)	-	10(6.66)
<b>Family size</b>						
small <4	10(33.33)	11(36.67)	2(6.67)	19(63.33)	16(53.33)	58(38.66)
medium 5-7	13(43.33)	12(40.00)	10(33.33)	7(23.33)	5(16.67)	47(31.33)
large >7	7(23.33)	7(23.33)	18(60.00)	4(13.33)	9(30.00)	45(30.00)
<b>Annual income</b>						
Low income (<60,000)	5(16.67)	9(30.00)	16(53.33)	2(6.67)	-	32(21.33)
Medium (60,000 to 1,20,000)	19(63.33)	21(70.00)	11(36.66)	12(40.00)	30(100.00)	93(62.00)
High (>1,20,000)	6(20.00)	-	3(10.00)	16(53.33)	-	25(16.66)

Note : Figure in the parenthesis indicate percentage

### Socio demographic characteristics of the high school students

The table 1 shows the socio demographic background information of the selected students. Majority of the students (71.33%) mothers' age was between 31-50 years and about 53.33% of student's father's age was between 31-50 years. About the religion of the students 71.33 per cent of them belonged to Hindu religion followed by Christianity (16.66%) and Muslims (12%). Majority of students (64.66%) were from nuclear type of family followed by joint family (35.33%). For educational status of the parents, about 29.33 per cent of respondent's mother were illiterate followed by completion of primary school education (24.66%), middle school (18.66%), High school (10%), Pre University College education (11.33%) and least percentage of mothers (6%) had completed their graduation.

Regarding educational status of respondent's father (38%) were found to be completed their primary schooling followed by illiteracy (27.33%), Middle schooling (12%), High Schooling (12.66%) and PUC (8.66%). About 82.66% of parents of selected student's occupation were Agriculture, followed by Driving Vehicles (7.33%), carpentry (6.66%) and Teaching (3.33%). The selected high-school student's family size was categorized into small, medium and large. About 38.66 per cent of the students were from small family (with the size less than 4 members) followed by medium size (31.33%) and large size (30%). The respondent's family annual income was categorized into low, medium and high and majority of students (62%) family annual income was medium between the large of Rs. 60,000/- to Rs.1,20,000/- followed by low income (21.33%) and high income (16.66%).

**Table 2: Distribution of students based on knowledge regarding standard weights and measures**

**N=150**

Weights and Measure	(Hebballi) n=30		(Nigdi) n=30		(Tadakod) n=30		(Aminbhavi) n=30		(Managundi) n=30		Total	
	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls (n=75)	Boys (n=75)
Rights position of needle in the balance	11 (73.33)	7 (46.66)	10 (66.66)	9 (60.00)	6 (40.00)	13 (86.66)	6 (40.00)	11 (73.33)	7 (46.66)	5 (33.33)	<b>40 (53.33)</b>	<b>45 (60.00)</b>
Year stamp on the weights	4 (26.66)	3 (20.00)	2 (13.33)	3 (20.00)	9 (60.00)	2 (13.33)	7 (46.66)	4 (26.66)	6 (40.00)	7 (46.66)	<b>28 (37.33)</b>	<b>19 (25.33)</b>
Quantum of measure	1 (6.66)	7 (46.66)	5 (33.33)	4 (26.66)	1 (6.66)	-	3 (20.00)	3 (20.00)	2 (13.33)	-	<b>12 (16.00)</b>	<b>14 (18.66)</b>
<b>Mean</b>	<b>5.33</b>	<b>5.66</b>	<b>5.66</b>	<b>5.33</b>	<b>5.33</b>	<b>5.00</b>	<b>5.33</b>	<b>6.00</b>	<b>5.00</b>	<b>4.00</b>	<b>26.66</b>	<b>26.00</b>

Note : \*Figure in the parenthesis indicate percentage

Equal number of boys and girls from each village

Data regarding knowledge of High School students with respect to standard weights and measures are presented in the **Table 2**. Among the selected villages, Amminbhavi village students had better knowledge regarding standard weights and measures with boys having mean value of 6 and girls having mean value of 5.33. Followed by that Hebballi, Nigadi village students have almost equal mean value with respect to the knowledge on standard weights and measures. Managundi village students had the least mean value among other villages with girls having mean value of 5 and boys having mean value of 4. Among the three factors regarding standard weights and measures majority of boys (60%)

and girls (53.33%) had expressed that they have knowledge to check the right position of needle in the Balance scale while purchasing any food items. Followed by this, about 37.33 per cent of girls and 25.33 per cent of boys have informed their knowledge regarding checking the year of stamp seal below the weights while purchasing. A very less percentage of girls (16%) and boys (18.66%) had knowledge regarding measuring can (i.e.) by checking the quality of measures used by the marketer.

**Table 3**. Showed that students' knowledge on standard weight and measure with respect to knowledge regarding checking the right position of needle in balance scale

while purchasing, about 53.33 per cent of students have expressed their gain in knowledge in folder method whereas for lecture cum demonstration method it was increased to 76.66 per cent. For checking the year stamp at the back of the weights and measure about 80 per cent of students had expressed their knowledge gain in lecture cum demonstration method and also about 46.66

per cent increase in folder method was observed. In case of checking the quality level of measuring jars, about 13.33 per cent of students had mentioned their knowledge during pre-test which was increased into 26.66 per cent in post-test with folder method and about 33.33 per cent in lecture cum demonstration method.

**Table 3: Distribution of Students knowledge on Weights and measure Before and After Educational Intervention programme n=30**

Standard weights and measures	Pre-test			Post -Test					
	Girls	Boys	Total	Folder			Lecture cum Demonstration		
				Girls	Boys	Total	Girls	Boys	Total
Niddle in balance	7(46.66)	5(33.33)	12(40.00)	7(46.66)	9(60.00)	16(53.33)	12(80.00)	11(73.33)	23(76.66)
Year in stamping	6(40.00)	7(46.66)	13(43.33)	8(53.33)	6(40.00)	14(46.66)	10(66.66)	12(80.00)	22(73.33)
Measuring can	2(13.33)	-	2(6.66)	5(33.33)	3(20.00)	8(26.66)	7(46.66)	5(33.33)	13(43.33)
Mean	5.00	4.00	9.00	6.66	6.00	12.66	9.66	9.33	19.33

Note : Figures in parenthesis indicate percentage Equal no. of Boys and Girls

### CONCLUSION

As the high school students of rural area can be trained regarding consumerism to have an awareness to overcome exploitation. Hence the present study has been taken up to impart the knowledge regarding standard weights and measure among high school students in rural area. It can be concluded from the study that the educational intervention methods i.e. folder and lecture cum demonstration were found to be effective to impart the knowledge among the high school students, however lecture cum demonstration was found to be more significant than the folder developed for imparting the knowledge regarding selected aspects consumerism.

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