

SCHOOL BASED ASSESSMENT

(CSEC)

TITLE OF PROJECT

:To investigate the average weekly allowance of form three students of A.S.J.A. Girls' College, Charlieville and how they spend their allowance for the week of 10th to 16th November, 2013.

SBA SCORE

: _____

Donated to Lessons 1 Cunupia - 712-2652

Table of Contents

Titles	Pages
Project Title	3
Purpose of Project	4
Method of Data Collection	5
Presentation of Data	6
Analysis of Data	9
Discussion	12
Recommendation	13
Conclusion	14
Appendix	15

Donated to Lessons 1 Cunupia - 712-2652

Project Title

To investigate the average weekly allowance of form three students of A.S.J.A. Girls' College, Charlieville and how they spend their allowance for the week of 10th to 16th November, 2013.

Donated to Lessons 1 Cunupia - 712-2652

Purpose of Project

In recent times, our dean has addressed the issue of students borrowing money from other students. The younger students are being “taxed” – (local term for taking money from others that is not yours without giving it back) quite often. Problems have occurred in the form three level where many of them have been accused of targeting the younger students for money. During assembly we have recently had lectures on the importance of budgeting. They mention that we the students should spend our money on the items we need rather than what we want which is not important to our needs at the time. They also said money should be used wisely and sensibly. Also savings should be part of our money allocation. These remarks lead me to investigate how students of form three spend their money for the week 10th to 16th November, 2013.

Variables

- Stationery- pencils, pencil, folders, markers etc.
- Food and snacks- during break time, lunchtime and after school.
- Personal items- such as jewellery, clothes, cosmetics and non-essential items.
- Savings- the amount of money placed away for emergency purposes.

Donated to Lessons 1 Curriculum - 11/2013

Method of Data Collection

A.S.J.A. Girls' College, Charlieville has 935 students. Each form level contains five classes of thirty-five students each. The data was randomly collected by:

- Firstly 35 pieces of paper was cut out. Then they were numbered.
- The pieces of paper were then placed into a bag. The bag was then closed.
- The bag was shaken and placed on the table.
- Then I selected 12 pieces of paper.
- I wrote down the number from each of the pieces of paper.
- On Monday 10th November, 2013 during registration I went to each of the form three form teachers and gave them the 12 numbers I had obtained.
- I asked them to give the student whose number on the role book corresponds to the numbers I gave them a questionnaire. If the student was absent. The student next on the role book was to be given the questionnaire.
- I told the form teachers that I would return during registration on Monday 17th November, 2013 to receive the questionnaires.

Donated to Lessons 1 Curriculum 712-2652

Presentation of Data

Question 1 (refer to appendix)

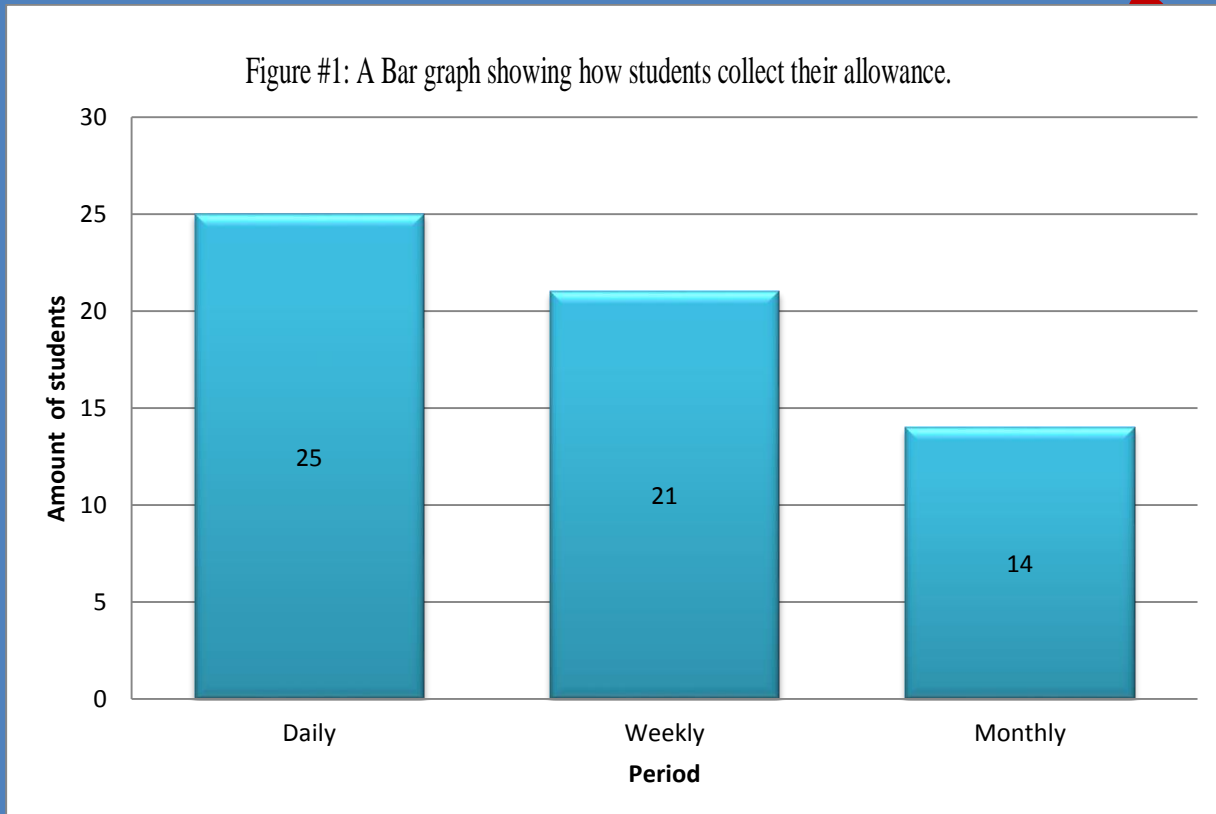


Figure #1 shows how sixty students of form three collect they allowance. The most amount of money is collected daily by 25 students. Then weekly by 21 students and the least collected is monthly by 14 students.

Question 3 (refer to appendix)

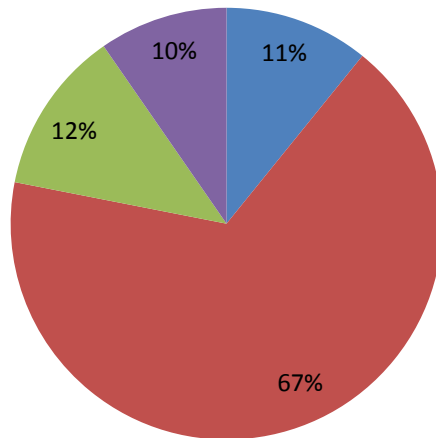
Table #1: shows the money spent on each variable and the percentages of different variables.

Variables	Money spent (\$)	Percentage (%)
Stationery	1284	11
Food and Snacks	7967	67
Personal items	1455	12
Savings	1143	10
	11849	

772-2652

Figure #2: A pie chart showing the percentage of students allowance spent on the different variables.

■ Stationery ■ Food and Snack ■ Personal Items ■ Savings



The pie chart shows that variable form three spent their allowance most on is food and snacks. Then personal items, then stationery and least is on savings.

Question 2 (refer to appendix)

Figure #3: Diagram of a stem and leaf to represent the amount of money collected for weekly allowance.

Stem	Leaf
8	0 0 0 4 5 5 5
10	0 5 5 5 5 5 6
11	0 5 6 6 7 7
13	0 0 0 4 5 7 7
15	5 6 6 6
18	0 2 2
24	0 0 5 5
25	0 0 0
27	0 4 5 5 6
29	0 9
30	0 3
31	0 3 4 4 5 5 6
41	5
42	0 2

key: 10/0 means \$100

This diagram shows the amount of money collected by form three students for the week of 10th to 16th of November, 2013.

The range = Largest observation – Smallest observation

$$= \$342$$

The lower (first) quartile (Q_1) = \$ 107

The upper (third) quartile (Q_3) = \$ 275

$$\text{The median } (Q_2) = \frac{156+156}{2}$$

$$= \$156$$

The interquartile range, IOR = $Q_3 - Q_1$

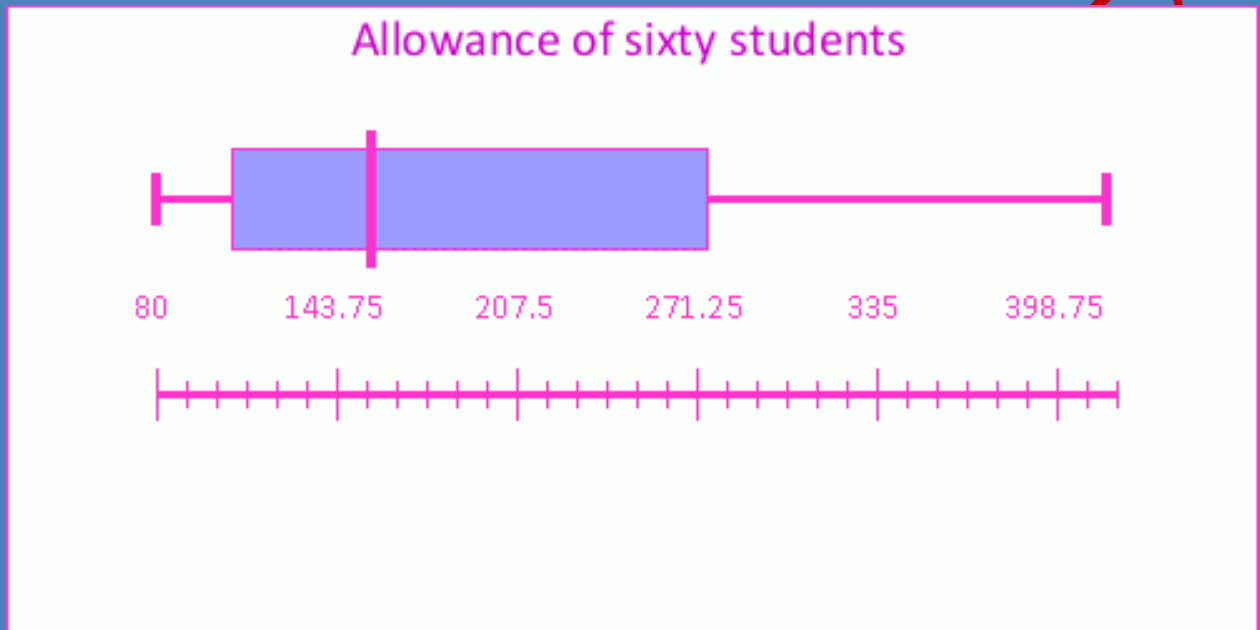
$$= \$168$$

The semi-interquartile range, SIOR = $\frac{1}{2}(Q_3 - Q_1)$

= \$ 84

Analysis of Data

Figure #4: Box and whiskers diagram showing the amount of money collected for weekly allowance. (Refer to question 3)



Donated to Lesson

All the money collected by sixty form three students in a week.

Allowance	Frequency (f)	Class mid-point (x)	F(x)	$(x-\bar{x})$	$(x-\bar{x})^2$	$f(x-\bar{x})^2$
80-89	7	84.5	591.5	-115.575	13357.58	93503.06
..						
100-109	8	104.5	836	-95.575	9134.58	73076.64
110-119	6	114.5	687	-85.575	7323.08	43938.48
...						
130-139	7	134.5	941.5	-65.575	4300.08	30100.56
...						
150-159	4	154.5	618	-45.575	2077.08	8308.32
....						
180-189	3	184.5	553.5	-15.575	242.58	727.74
...						
240-249	4	244.5	978	44.425	1973.58	7894.32
250-259	3	254.5	763.5	54.425	2962.08	8886.24
..						
270-279	5	274.5	1372.5	74.425	5539.08	27695.4
...						
290-299	2	294.5	589	94.425	8916.08	17833.6
300-309	2	304.5	609	104.425	10904.58	21809.16
310-319	7	314.5	2201.5	114.425	13093.08	91651.56
...						
410-419	1	414.5	414.5	214.425	45978.08	45978.08
420-429	2	424.5	849	224.425	50366.58	100733.16
	$n = \sum f$		$\sum fx$			
			12004.5			572136.32

$$\begin{aligned}\text{The mean, } \bar{x} &= \frac{\sum fx}{n} \\ &= \frac{12004.5}{60} \\ &= 200.075 \text{ dollars (exact)}\end{aligned}$$

$$\begin{aligned}\text{The Variance, } S^2 &= \frac{\sum f(x-\bar{x})^2}{n} \\ &= \frac{572136.32}{60} \\ &= 9535.61 \text{ dollars (2.decimal point)}\end{aligned}$$

$$\begin{aligned}\text{The Standard Deviation, } S &= \sqrt{\frac{\sum f(x-\bar{x})^2}{n}} \\ &= \sqrt{\frac{572136.32}{60}} \\ &= 97.65 \text{ dollars (2.decimal point)}\end{aligned}$$

Discussion

In A.S.J.A Girls' College, Charlieville there are 175 students in the form three year body. They are 5 classes that hold 35 students each. The purpose of this investigation was to find out the average weekly allow of form three students of A.S.J.A. Girls' College, Charlieville and how they spend their allowance for the week of 10th to 16th November, 2013. The meaning of budget is "to spend money wisely, and to plan how the money you have will be spent." The four variables are: food/snacks, stationery, personal items and savings.

Figure #1 shows that the most form three students collect their allowance weekly. Then is weekly and the least is monthly for the collection of allowance.

Figure #2 shows that the highest factor is food and snacks at 67% followed by personal items at 12%, stationery at 11%. Savings is the least at 10%.

Figure #3 shows the amount of money collected weekly. The mode is \$107. The lower quartile is \$107. The upper quartile is \$275. The median is \$156. The interquartile range is \$168 and the semi- interquartile range is \$84. This is also displayed in the box-and- Whisker.

All the money collected by sixty students from their allowance was \$11849. The mean is \$200.075. The variance is \$9353.61. The standard variance is \$97.65.

Donated to Lessons 1 Cumtola - 712-2652

Recommendation

In my investigation it showed that the least amount of money was placed aside for savings. The students of form three should be taught the value of money so it would be too late when they enter the real world. I am recommending to the Principal to do the following:

- Invite various banks such as: (RBC, Republic bank, and Scotia bank) to speak to the students about a savings account.
- A Social-Studies project into planning a budget for students across the school.
- To start an awareness program.

These few things can make an extraordinary difference in how students view money.

Donated to Lessons 1 Cunupia - 712-2652

Conclusion

The purpose of this investigation was to see how sixty form three students of A.S.J.A Girls' College, Charleville spend their weekly allowance. The mean of their weekly allowance for sixty students was \$200.075. The variance is \$9535.61 and Standard Variance is \$97.65.

The highest factor is food and snacks at 67% followed by personal items 12%, stationery at 11%. Savings is the least at 10%.

Donated to Lessons 1 Cunupia - 712-2652

Appendix

Websites:

- http://answers.ask.com/business/finance/what_does_budget_mean
- <http://www.mathwarehouse.com/charts/box-and-whisker-plot-maker.php#boxwhiskergraph>

Books:

- Additional Mathematics by Raymond Toolie BSc,MACP

Donated to Lessons 1 Cunupia - 712-2652