Republic of the Philippines
Department of Education
REGION VII, CENTRAL VISAYAS
Division of Cebu Province

SELF-LEARNING HOME TASK (SLHT) # 3

Subject: **Inquiries, Investigation and Immersion** Grade Level: 12
Quarter: 4 Week: 3
Competency: Interpret the given data in quantitative research of their choice relevant to one's field of study
Competency Code:
Name _____ Section _____ Date _____
School: Dalaguete National High School District: Dalaguete 1

Readings/Discussions

Do you know everything surround us is made up of huge data? In the other word, everything is the product of research. There are a lot of changes from time to time. New modern technology sprouting in our digital age. High end technology and infrastructure rising in our modern world. Have you wander why? It is because the researcher effort to gathered data and experimentation process and treat the data correctly to make a new findings and inventions.

Data analysis and interpretation have now taken center stage with the advent of the digital age… and the sheer amount of data can be frightening. In fact, a Digital Universe study found that the total data supply in 2012 was 2.8 trillion gigabytes! Based on that amount of data alone, it is clear the calling card of any successful enterprise in today's global world will be the ability to analyze complex data, produce actionable insights and adapt to new market needs… all at the speed of thought.

Quantitative data is defined as the value of data in the form of counts or numbers where each data-set has an unique numerical value associated with it. This data is any quantifiable information that can be used for mathematical calculations and statistical analysis, such that real-life decisions can be made based on these mathematical derivations. Quantitative data is used to answer questions such as "How many?", "How often?", "How much?". This data can be verified and can also be conveniently evaluated using mathematical techniques.

For example, there are quantities corresponding to various parameters, for instance, "How much did that laptop cost?" is a question which will collect quantitative data. "How often did you attend your online class?" is another quantitative data. There are values associated with most measuring parameters such as pounds or kilograms for weight, pesos for cost etc.

What is Data Interpretation?

Data interpretation refers to the implementation of processes through which data is reviewed for the purpose of arriving at an informed conclusion. The interpretation of data assigns a meaning to the information analyzed and determines its signification and implications.

The importance of data interpretation is evident and this is why it needs to be done properly. Data is very likely to arrive from multiple sources and has a tendency to enter the analysis process with haphazard ordering. Data analysis tends to be extremely subjective. That is to say, the nature and goal of interpretation will vary from business to business, likely correlating to the type of data being analyzed. While there are several different types of processes that are implemented based on individual data nature, the two broadest and most common categories are "quantitative analysis" and "qualitative analysis".

Before any serious data analysis can begin, the scale of measurement must be decided for the data as this will have a long-term impact on data interpretation ROI. The varying scales include:

- **Nominal Scale:** non-numeric categories that cannot be ranked or compared quantitatively. Variables are exclusive and exhaustive.
- **Ordinal Scale:** exclusive categories that are exclusive and exhaustive but with a logical order. Quality ratings and agreement ratings are examples of ordinal scales (i.e., good, very good, fair, etc., OR agree, strongly agree, disagree, etc.).
- **Interval:** a measurement scale where data is grouped into categories with orderly and equal distances between the categories. There is always an arbitrary zero point.
- **Ratio:** contains features of all three.

Let's take a closer look at those specific data interpretation methods and possible data interpretation problems.

Quantitative Data Interpretation

If quantitative data interpretation could be summed up in one word (and it really can't) that word would be "numerical." There are few certainties when it comes to data analysis, but you can be sure that if the research you are engaging in has no numbers involved, it is not quantitative research. Quantitative analysis refers to a set of processes by which numerical data is analyzed. More often than not, it involves the use of statistical modeling such as standard deviation, mean and median. Let's quickly review the most common statistical terms:

- **Mean:** a mean represents a numerical average for a set of responses. When dealing with a data set (or multiple data sets), a mean will represent a central value of a specific set of numbers. It is the sum of the values divided by the number of values within the data set. Other terms that can be used to describe the concept are arithmetic mean, average and mathematical expectation.

For example:

To compute, use the formula: Mean = $\frac{\sum x}{N}$

When you find the "usual" mean for a set of numbers, all the numbers carry an equal weight. For example, if you want to find the arithmetic mean of 1, 3, 5, 7, and 10:

1. Add up your data points: 1 + 3 + 5 + 7 + 10 = 26.
2. Divide by the number of items in the set: 26 / 5 = 5.2.

What do we mean by "equal weight"? The first sentence in some tests is sometimes "All questions carry an equal weight". It's saying that all the questions in the exam are worth the same number of points. If you have a 100 point exam and 10 questions, each question is worth 1/10th of the points. In the above question, you have of a set of five numbers. You can think of each number contributing 1/5 to the total mean (as there are 5 numbers in the set)

The Weighted Mean

In some cases, you might want a number to have more weight. In that case, you want to find the **weighted mean**. To find the weighted mean:

1. Multiply the numbers in your data set by the weights.
2. Add the results up.

For that set of number above with equal weights (1/5 for each number), the math to find the weighted mean would be:
1(*1/5) + 3(*1/5) + 5(*1/5) + 7(*1/5) + 10(*1/5) = 5.2.

Example problem: You take three 100-point exams in your statistics class and score 80, 80 and 95. The last exam is *much* easier than the first two, so your professor has given it less weight. The weights for the three exams are:

- Exam 1: 40 % of your grade. (Note: 40% as a decimal is .4.)
- Exam 2: 40 % of your grade.
- Exam 3: 20 % of your grade.

What is your final weighted average for the class?

1. Multiply the numbers in your data set by the weights:
   .4(80) = 32
   .4(80) = 32
   .2(95) = 19
2. Add the numbers up. 32 + 32 + 19 = 83.

The percent weight given to each exam is called a weighting factor.

Weighted mean = Σwx/Σw

- Σ = summation (in other words…add them up!).
- w = the weights.
- x = the value.

To use the formula:

1. Multiply the numbers in your data set by the weights.
2. Add the numbers in Step 1 up. Set this number aside for a moment.
3. Add up all of the weights.
4. Divide the numbers you found in Step 2 by the number you found in Step 3.

In the sample grades problem above, all of the weights add up to 1 (.4 + .4 + .2) so you would divide your answer (83) by 1:
83 / 1 = 83.

However, let us say your weighted means added up to 1.2 instead of 1. You should divide 83 by 1.2 to get:
83 / 1.2 = 69.17.

Warning: The weighted mean can be easily influenced by outliers in your data. If you have very high or very low values in your data set, the weighted mean may not be a good statistic to rely on.

Step to conduct Quantitative Data Analysis

For Quantitative Data, raw information has to presented in meaningful manner using analysis methods. Quantitative data should be analyzed in-order to find evidential data that would help in the research process.

- **Relate measurement scales with variables:** Associate measurement scales such as Nominal, Ordinal, Interval and Ratio with the variables. This step is important to arrange the data in proper order. Data can be entered into an excel sheet to organize it in a specific format.
- **Connect descriptive statistics with data:** Link descriptive statistics to encapsulate available data. It can be difficult to establish a pattern in the raw data. Some widely used descriptive statistics are:
    1. Mean- An average of values for a specific variable
    2. Median- A midpoint of the value scale for a variable
    3. Mode- For a variable, the most common value
    4. Frequency- Number of times a particular value is observed in the scale
    5. Minimum and Maximum Values- Lowest and highest values for a scale
    6. Percentages- Format to express scores and set of values for variables
- **Decide a measurement scale:** It is important to decide the measurement scale to conclude a descriptive statistics for the variable. For instance, a nominal variable score will never have a mean or median and so the descriptive statistics will correspondingly vary. Descriptive statistics suffice in situations where the results are not to be generalized to the population.
- **Select appropriate tables to represent data and analyze collected data:** After deciding on a suitable measurement scale, researchers can use a tabular format to represent data. This data can be analyzed using various techniques such as Cross-tabulation or TURF.

Data Analysis Process

Once you set out to collect data for analysis, you are overwhelmed by the amount of information that you find to make a clear, concise decision. With so much data to handle, you need to identify relevant data for your analysis to derive an accurate conclusion and make informed decisions. The following simple steps help you identify and sort out your data for analysis.

1. Data Requirement Specification – define your scope

    - Define short and straightforward questions, the answers to which you finally need to make a decision.
    - Define measurement parameters
    - Define which parameter you take into account and which one you are willing to negotiate.
    - Define your unit of measurement. Ex – Time, Currency, Salary, and more.

2. Data Collection

- Gather your data based on your measurement parameters.
- Collect data from databases, websites, and many other sources. This data may not be structured or uniform, which takes us to the next step.

3. Data Processing

- Organize your data and make sure to add side notes, if any.
- Cross-check data with reliable sources.
- Convert the data as per the scale of measurement you have defined earlier.
- Exclude irrelevant data.

4. Data Analysis

- Once you have collected your data, perform sorting, plotting, and identifying correlations.
- As you manipulate and organize your data, you may need to traverse your steps again from the beginning, where you may need to modify your question, redefine parameters, and reorganize your data.
- Make use of the different tools available for data analysis.

5. Infer and Interpret Results

- Review if the result answers your initial questions
- Review if you have considered all parameters for making the decision
- Review if there is any hindering factor for implementing the decision.
- Choose data visualization techniques to communicate the message better. These visualization techniques may be charts, graphs, color coding, and more.

Once you have an inference, always remember it is only a hypothesis. Real-life scenarios may always interfere with your results. In the process of Data Analysis, there are a few related terminologies that identity with different phases of the process.

Preparing data for analysis

The first stage in research and data analysis is to make it for the analysis so that the nominal data can be converted into something meaningful. Data preparation consists of the below phases.

Phase I: Data Validation

Data validation is done to understand if the collected data sample is per the pre-set standards, or it is a biased data sample again divided into four different stages

- **Fraud:** To ensure an actual human being records each response to the survey or the questionnaire
- **Screening:** To make sure each participant or respondent is selected or chosen in compliance with the research criteria

- **Procedure:** To ensure ethical standards were maintained while collecting the data sample
- **Completeness:** To ensure that the respondent has answered all the questions in an online survey. Else, the interviewer had asked all the questions devised in the questionnaire.

Phase II: Data Editing

More often, an extensive research data sample comes loaded with errors. Respondents sometimes fill in some fields incorrectly or sometimes skip them accidentally. Data editing is a process wherein the researchers have to confirm that the provided data is free of such errors. They need to conduct necessary checks and outlier checks to edit the raw edit and make it ready for analysis.

Phase III: Data Coding

Out of all three, this is the most critical phase of data preparation associated with grouping and assigning values to the survey responses. If a survey is completed with a 1000 sample size, the researcher will create an age bracket to distinguish the respondents based on their age. Thus, it becomes easier to analyze small data buckets rather than deal with the massive data pile.

Data Analysis Techniques

There are different techniques for Data Analysis depending upon the question at hand, the type of data, and the amount of data gathered. Each focuses on strategies of taking onto the new data, mining insights, and drilling down into the information to transform facts and figures into decision making parameters. Accordingly, the different techniques of data analysis can be categorized as follows:

1. Techniques based on Mathematics and Statistics

- **Descriptive Analysis**: Descriptive Analysis takes into account the historical data, Key Performance Indicators, and describes the performance based on a chosen benchmark. It takes into account past trends and how they might influence future performance.
- **Dispersion Analysis**: Dispersion in the area onto which a data set is spread. This technique allows data analysts to determine the variability of the factors under study.
- **Regression Analysis**: This technique works by modeling the relationship between a dependent variable and one or more independent variables. A regression model can be linear, multiple, logistic, ridge, non-linear, life data, and more.
- **Factor Analysis**: This technique helps to determine if there exists any relationship between a set of variables. In this process, it reveals other factors or variables that describe the patterns in the relationship among the original variables. Factor Analysis leaps forward into useful clustering and classification procedures.
- **Discriminant Analysis**: It is a classification technique in data mining. It identifies the different points on different groups based on variable

measurements. In simple terms, it identifies what makes two groups different from one another; this helps to identify new items.
- **Time Series Analysis**: In this kind of analysis, measurements are spanned across time, which gives us a collection of organized data known as time-series.

2. Techniques based on Visualization and Graphs

- **Column Chart, Bar Chart**: Both these charts are used to present numerical differences between categories. The column chart takes to the height of the columns to reflect the differences. Axes interchange in the case of the bar chart.
- **Line Chart**: This chart is used to represent the change of data over a continuous interval of time.
- **Area Chart**: This concept is based on the line chart. It additionally fills the area between the polyline and the axis with color, thus representing better trend information.
- **Pie Chart**: It is used to represent the proportion of different classifications. It is only suitable for only one series of data. However, it can be made multi-layered to represent the proportion of data in different categories.
- **Funnel Chart**: This chart represents the proportion of each stage and reflects the size of each module. It helps in comparing rankings.
- **Word Cloud Chart:** It is a visual representation of text data. It requires a large amount of data, and the degree of discrimination needs to be high for users to perceive the most prominent one. It is not a very accurate analytical technique.
- **Gantt Chart**: It shows the actual timing and the progress of activity in comparison to the requirements.
- **Radar Chart**: It is used to compare multiple quantized charts. It represents which variables in the data have higher values and which have lower values. A radar chart is used for comparing classification and series along with proportional representation.
- **Scatter Plot**: It shows the distribution of variables in the form of points over a rectangular coordinate system. The distribution in the data points can reveal the correlation between the variables.
- **Bubble Chart**: It is a variation of the scatter plot. Here, in addition to the x and y coordinates, the area of the bubble represents the 3rd value.
- **Gauge:** It is a kind of materialized chart. Here the scale represents the metric, and the pointer represents the dimension. It is a suitable technique to represent interval comparisons.
- **Frame Diagram**: It is a visual representation of a hierarchy in the form of an inverted tree structure.
- **Rectangular Tree Diagram**: This technique is used to represent hierarchical relationships but at the same level. It makes efficient use of space and represents the proportion represented by each rectangular area.

Sample Data Analysis/Study and It's Interpretation

Statement of the Problem

This study aims to determine the Motivation and Performance of Secondary School Teachers of Plaridel National High School, Baybay City Division, Baybay City.

Furthermore, it seeks to answer the following sub-inquiries:

1. What is the profile of the respondents in terms of:
    1.1 civil status;
    1.2 highest educational attainment;
    1.3 length of service; and
    1.4 monthly income?
2. What is the extent of the intrinsic and extrinsic factors?
3) What is the teacher's teaching performance based on the last year's IPCRF:
    2.1 teaching learning process;
    2.2 pupils/students outcomes;
    2.3 school and community involvement; and
    2.4 professional growth and development?
4. Is there a significant relationship between intrinsic and extrinsic factors of motivation and the performance of Secondary Schools Teachers?

Profile	**Frequency**	**Percentage**
A. Civil Status		
Single	5	25
Married	15	75
Total	20	100
B. Educational Attainment		
Bachelor's Degree	9	45
with MA Units	10	50
MA GRADUATE	1	5
Total	20	100
C. Length of Service		
0-5 years	10	50
6-10 years	4	20
11-20 years	3	15
21-35 years	3	15
Total	20	100
D. Monthly Income		
Php 20,000-30,000	6	30
Php 30,001-40,000	14	70
Total	20	100

Table presents the Profile of the Secondary teachers. In terms of civil status, out of 20 teachers, there are 5 (25%) single and 15 (75%) married. This reveals that there are more married teachers employed in the school compared to single.

In terms of Educational attainment, there are 9 (45%) with bachelor's degree; 10 (50%) with MA units and 1 (5%) who is a full-fledged MA graduate. This reveals that majority of the teachers are taking their master's degree as requirement for ranking and promotion.

In terms of length of service, 10 (50%) have 0-5 years of service; 4 (20%) 6-10 years; 3 (15%) 11-20 years and 3 (15%) with 21-35 years of service. This reveals that majority of the teachers are on their first five years of teaching.

Intrinsic Factors	**SA (5)**	**A (4)**	**U (3)**	**D (2)**	**SD (1)**
1. Teaching gives me a great deal of job satisfaction.					
2. I enjoy teaching as a profession.					
3. The challenging nature of teaching has kept me in the profession.					
4.Teaching is a competitive profession in the school.					
5. Teaching gives me recognition and respect from the community.					
6.I have prospects for career development in the teaching profession.					
7. The responsibilities I perform in the school gives me a sense of control over others.					
8. Teaching is one of my goal in life.					
9. I am more useful to the community as a teacher than any other profession.					
10. Teaching enables me to interact and develop relationship with people from many areas.					
Grand Mean					

Legend

Range	**Description**	**Interpretation**
4.21-5.0	Strongly Agree(SA)	Very High
3.21-4.20	Agree(A)	High
2.21-3.20	Undecided(U)	Moderate
1.21-2.20	Disagree(D)	Low
1.0-1.20	Strongly Disagree(SD)	Very Low

Intrinsic Factors	Weighted Mean	Interpretation
1. Teaching gives me a great deal of job satisfaction.	3.89	High
2. I enjoy teaching as a profession.	4.12	High
3. The challenging nature of teaching has kept me in the profession.	3.77	High
4.Teaching is a competitive profession in the school.	4.00	High
5. Teaching gives me recognition and respect from the community.	4.17	High
6.I have prospects for career development in the teaching profession.	3.85	High
7. The responsibilities I perform in the school gives me a sense of control over others.	4.05	High
8. Teaching is one of my goal in life.	3.90	High
9. I am more useful to the community as a teacher than any other profession.	4.10	High
10. Teaching enables me to interact and develop relationship with people from many areas.	3.86	High
Grand Mean	3.97	High

Legend

Range	**Description**	**Interpretation**
4.21-5.0	Strongly Agree	Very High
3.21-4.20	Agree	High
2.21-3.20	Undecided	Moderate
1.21-2.20	Disagree	Low
1.0-1.20	Strongly Disagree	Very Low

Table presents the extent of Intrinsic Motivation of the secondary teachers. The grand mean is 3.97 which is interpreted as Agree. This means that the motivation of the teachers is high. Intrinsic motivation of a teacher is important to be an effective teacher. Such type of motivation deals with personal motives that drives the passion and self-efficiency of the person. According to Herzberg (1972), intrinsic motivation is self-directing and nurturing even when there is no external factors or motives, the will of a person to succeed is intact. The study of Romano (2009) reveals that intrinsic motivation could be the reason why most teachers stay in the arduous job. The feeling of being satisfied at the end of the day is what makes a person happy.

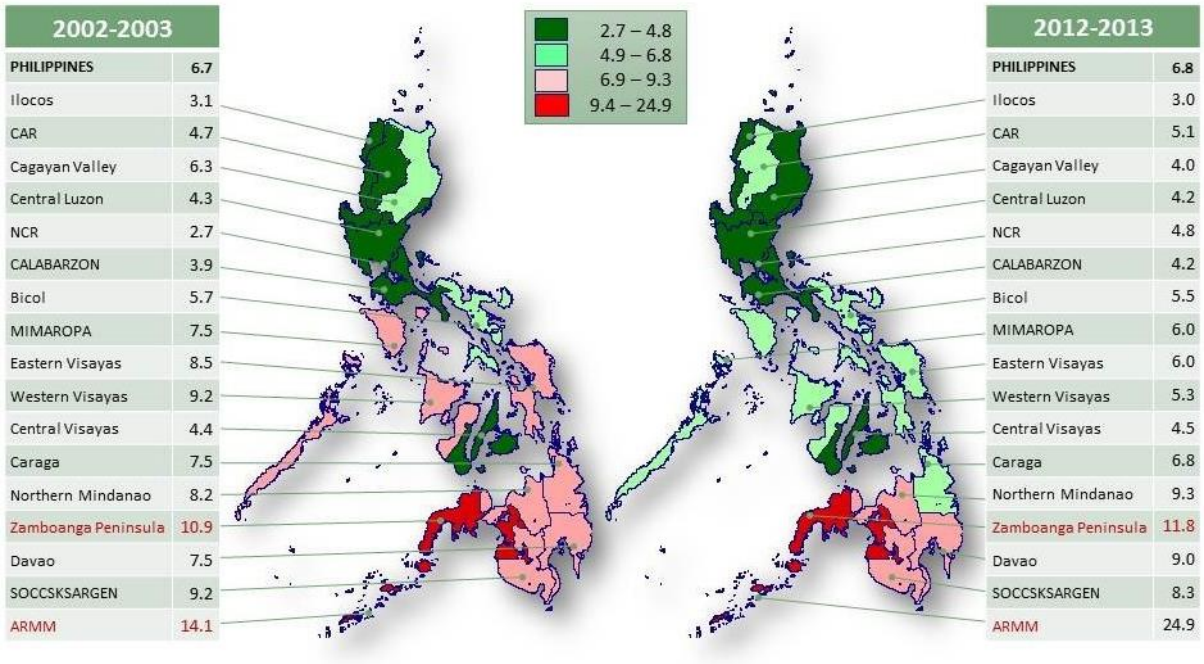
The highest rated item is on *"Teaching gives me recognition and respect from the community*," with a weighted mean of 4.17 interpreted as High. This means that the teaching job will let the teacher earn respect in the people of the community. Mercedes (2007) said, that a teacher is the most respected profession in the society. The hand of the teacher lies the make or break of a child's future. Such endeavor is worth praising and respecting.

The lowest rated item is on *"I have prospects for career development in the teaching profession,"* with a weighted mean of 3.85 which is still interpreted as High.

This is not a critical issue in the rating since it is still valued high. Nevertheless, a teacher may not be able to occupy higher rank or in most cases the promotion is elusive for most teachers. It takes a lot of schooling and sharpening to move up to the rank. Battery of tests and required degrees has to be met.

Another Sample

Figure 6.8 Dropout rate in elementary, by region, (SY2002-2003 and SY 2012-2013)



2002-2003	
PHILIPPINES	6.7
Ilocos	3.1
CAR	4.7
Cagayan Valley	6.3
Central Luzon	4.3
NCR	2.7
CALABARZON	3.9
Bicol	5.7
MIMAROPA	7.5
Eastern Visayas	8.5
Western Visayas	9.2
Central Visayas	4.4
Caraga	7.5
Northern Mindanao	8.2
Zamboanga Peninsula	10.9
Davao	7.5
SOCCSKSARGEN	9.2
ARMM	14.1

2012-2013	
PHILIPPINES	6.8
Ilocos	3.0
CAR	5.1
Cagayan Valley	4.0
Central Luzon	4.2
NCR	4.8
CALABARZON	4.2
Bicol	5.5
MIMAROPA	6.0
Eastern Visayas	6.0
Western Visayas	5.3
Central Visayas	4.5
Caraga	6.8
Northern Mindanao	9.3
Zamboanga Peninsula	11.8
Davao	9.0
SOCCSKSARGEN	8.3
ARMM	24.9

Source: DepEd
Including SUCs

The above figure which shows the map of the Philippines aims to compare dropout rates by region in two time periods, 2002 and 2012. The assigned ranges for the colors are truly arbitrary. Why does the dark green stop at 4.8, for example? Of course, with the above choice, the 2012 map looks more green than the 2002 map. This is obviously a deception because the dropout rates for the entire country are almost identical for the two time periods (6.7 in 2002 versus 6.8 in 2012). Quoting dropout rates in fact already hides the truth since the percentages may look the same, but in terms of absolute numbers, these could in fact be very different. There are about 12 million elementary pupils in 2002. In 2012, the number has increased to 13 million. 6.7 percent of 12 million is 804,000. 6.8 percent of 13 million is 884,000. While the dropout rates hide the increase, by looking at the absolute numbers, the number of dropouts has in fact increased by 10 percent. There are 80,000 more dropouts from elementary in 2012.

Data analysis and interpretation are critical to develop sound conclusions and make better informed decisions. There is an art and science to the interpretation of data. Hereafter is a list-summary of how to interpret data:

- Collect your data and make it as clean as possible.
- Choose the type of analysis to perform quantitative data and apply the analysis methods.
- Quantitative analysis: you lead a research with a lot of numerical data to be analyzed through various statistical methods – mean, standard deviation or frequency distribution for instance.
- Take a step back: and think about your data from various perspectives, and what it means for various participants.
- Reflect on your own thinking and reasoning: and be aware of the many pitfalls data analysis and interpretation carries. Correlation versus causation, subjective bias, false information and inaccurate data, etc.

Exercise 1:

Directions: Take a closer look in the given table about drop out rate per region. Examine and analyze the given drop out rate between SY:2002-2003 and SY:2012-2013. Answer the following questions. Put your answer in a separate sheet of paper.

Table 1 Dropout rate in elementary, by region, (SY2002-2003 and SY 2012-2014)

Region	SY: 2002-2003	SY: 2012-2013
Ilocos	3.1	3.0
CAR	4.7	5.1
Cagayan Valley	6.3	4.0
Central Luzon	4.3	4.2
NCR	2.7	4.8
CALABARZON	3.9	4.2
Bicol	5.7	5.5
MEMAROPA	7.5	6.0
Eastern Visayas	8.5	6.0
Western Visayas	9.2	5.3
Central Visayas	4.4	4.5
Caraga	7.5	6.8
Northern Mindanao	8.2	9.3
Zamboanga Peninsula	10.9	11.8
Davao	7.5	9.0
SOCSARGEN	9.2	8.3
ARMM	14.1	24.9

Source: DepEd, including SUC's

Guide Questions:

1. What region has the highest drop out rate between SY: 2003 and 2013? How many percent increased?
2. What region recorded the lowest drop out rate between SY: 2003 and 2013? How many percent decreased?
3. What is the average mean of drop out throughtout the Philippines in SY: 2003? SY:2013?

4. Is the drop out rate incresing or decreasing throughtout the Philippines between the SY:2003 and SY: 2013? How many percent?

Exercise 2:

Directions: Construct a bar graph from the given data in the table below. Analyze the data and make your own interpretation

DROPOUT RATES IN THE ELEMENTARY LEVEL

RATE	SCHOOL YEAR
6.98%	2004-2005
7.33%	2005-2006
6.37%	2006-2007
5.99%	2007-2008
6.02%	2008-2009
6.28%	2009-2010
6.29%	2010-2011
6.38%	2011-2012
6.81%	2012-2013

Source: Department of Education Research & Statistics Division Office of Planning Service and Department of Education Official Website Facts and Figures

Assessment/Application/Outputs

Instructions: Read and understand each statement. Choose the letter of the correct answer. Write your answer in a separate sheet of paper.

1. It is the sum of the values divided by the number of values within the data set.

A. Mean B. Median C. Mode D. Standard deviation

2. Which measure of central tendency is obtained using the middle score when all scores are organize in numerical order?

A. Frequency Distribution B. Mean C. Median D. Mode

3. The total score obtained by the few students in practical research exam are the following: 89, 95, 85, 75, 81. What is the average mean of the scores?

A. 80 B. 85 C. 88 D. 90

4. It is a measurement scale where exclusive categories that are exclusive and exhaustive but with a logical order.

A. Interval B. Nominal C. Ordinal D. Ratio

5. It describes the degree of consistency within the responses.

A. Frequency distribution B. Mean C. Median D. Standard deviation

6. This is a measurement gauging the rate of a response appearance within a data set.

A. Average B. Data analysis C. Frequency distribution D. Standard deviation

For questions 7-9, refer to the following problem:

A study conducted to determine Grade 10 Students of XYZ National School to enroll in Academic track based on their academic performance and NCAE results. The following profile data are given:

Profile of the Participants		
Age	**Frequency**	**Percent**
15	5	17.9
16	17	60.7
17	5	17.9
18	1	3.6
Total	**28**	**100.0**
Mean 16.07		
Gender		
Male	6	21.4
Female	22	78.6
Total	**28**	**100**

7. Based on the age of the respondents, what can be inferred?
   A. Less than 3.6% of the respondent is 18 years old.
   B. Most of the Grade 10 students age is 16 years old.
   C. Less than half the respondents age is 16 years old.
   D. More than 4% of the respondents age is 18 years old.
8. Based on the respondent's gender, what can be inferred?
   A. Most of the respondents are male
   B. Most of the respondents are female
   C. More than half of the respondents are male
   D. Less than half of the respondents are female
9. Based on the given table, what interpretation can you formulate?
   A. Male is not interested in academic track
   B. Age is not the factor of choosing the academic track
   C. Gender is the influential factor in-order to choose the academic track
   D. Most of the grade 10 students who choose the academic track is female

For questions 10-12, refer to the following problem:

A survey was conducted to know the sentiments of the Senior High Students about latest Online Presentation rendered by the SSG officers.
"In your opinion, the dance presentation was entertaining, boring or neither?"

Respondents	**Entertaining**	**Boring**	**Neither**
A	1		
B	1		
C		1	
D	1		
E			1
Total	**3**	**1**	**1**

10. What is the mean of the response who said that the presentation was boring?

A. 0.2 B. 0.3 C. 0.5 D. 0.6

11. What percentage of the respondents said that the dance presentation is entertaining?

A. 50% B. 60% C. 70% D. 90%

12. What the table implies?

A. 1/3 of the respondents agreed that the presentation was entertaining.

B. 3 out of 3 respondents agreed that the presentation was entertaining.

C. Less than 10% of the respondents agreed that the presentation was boring.

D. 20% of the respondents agreed that the presentation neither entertaining nor boring

13. It is a measurement scale where data is grouped into categories with orderly and equal distances between the categories.

A. Interval B. Nominal C. Ordinal D. Ratio

14. Given the following scores: 12, 15, 18, 15, 16, 13, 17, 18, 14. What is the median score?

A. 12 B. 14 C. 15 D. 16

15. The following are the meaning of quantitative data, **EXCEPT**?

A. Data that can be statistically analyzed

B. Data is used to answer questions such as "How many?", "How often?", "How much?"

C. Data is not described through numerical values or patterns, but through the use of descriptive context

D. The value of data in the form of counts or numbers where each data-set has an unique numerical value associated with it.

Suggested Enrichment/Reinforcement Activity/ies

Once you are done with the assessment part, you can now proceed to your own data analysis based on the approved topic from your research teacher. Decide, with the help of your teacher, what data analysis method to used and manipulate so that you can easily interpret the result of your study.

References

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NOTE: Contents adapted from the module of DepEd Cebu City Division, Region VII