

QUEST:

- ★ **Content Standard:**
 - ✓ The learner demonstrates understanding of data collection procedures and skills using varied instruments, data processing, organizing, and analysis.
- ★ **Learning Competencies:**
 - ✓ The learner presents and interprets data in tabular and graphical forms. (CS_RS12-Ild-g-2).

MISSION 1

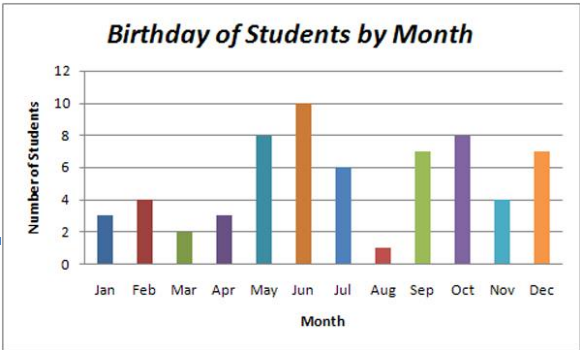
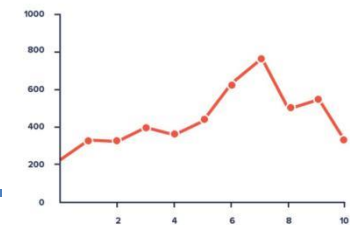
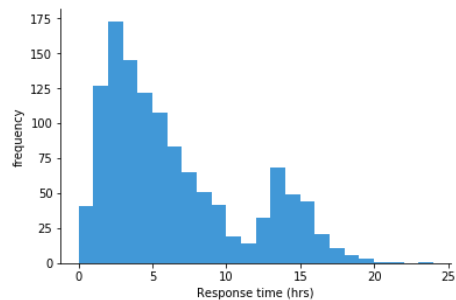
I. Multiple Choice. Read the statements carefully and encircle the letter of the correct answer.

1. It is a part of the research methodology wherein it refers to the design for data collection and data analysis.
- A. Data Gathering
B. Research Method
C. Research Flow
D. Sources of Data
2. _____ is a type of source where data is collected by a researcher from first-hand sources, using methods like surveys, interviews and experiments.
- A. Tertiary Sources
B. Secondary Sources
C. Primary Sources
D. First-hand sources
3. It is where the researcher will discuss the procedures done in conducting the study, the process in gathering the data.
- A. Data Gathering
B. Sources of Data
C. Research Method
D. Research Environment
4. It is a part of the research methodology where it shows the place where the study takes place.
- A. Data Gathering
B. Sources of Data
C. Research Method
D. Research Environment
5. It acts as a map to get us from the beginning of inquiry to the end of a conclusive understanding.
- A. Sources of Data
B. Research flow
C. Research Method
D. Research Environment

Equip

RESULTS AND DISCUSSION

- ✓ In **results and discussion**, we presented data through graphs and summary table, and how the data were treated, and the statistical outputs.
- ✓ It is also discussed here the analysis of the tables and graphs, and the statistical outputs.
- ✓ In presenting the data collected, a researcher may use any graphs and tables such as Histogram, Line graph, Bar graph and others



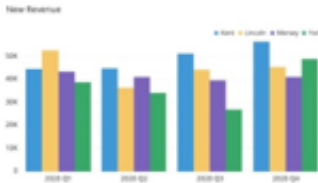
Mission 2

Instruction: Identify the type of graph in each item.

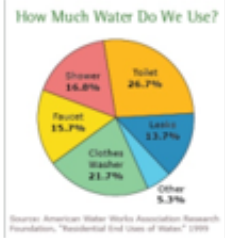
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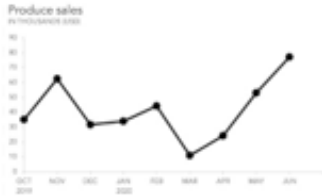
3.



2.



4.



STATISTICAL TREATMENT OF DATA

- ✓ Most common statistical tool in research and that is easier to use is the **weighted mean**. If it is a **correlational study**, the researcher may use **Pearson's correlation tool**.
- ✓ The researcher should use the statistical tool that is connected to the study, since statistical tools are used to come up with an answer about the objective or the problem of the study.
- ✓ Spearman's rho, Pearson rho, Kendall's tau, or partial correlation may be used to determine the association or relationship of the variables in the study. These tools can measure how strong the relationship of the two variables.

Below is an example of statistical tool used in study.

TABLE 1: Weighted Mean and Descriptive Category

(Have you been in a situation where you can't maintain eye-to-eye contact due to nervousness in speaking English).

Response	f	x	Fx	WM	DC
ALWAYS	33	5	165		
OFTEN	33	4	132		
SOMETIMES	72	3	216		
SELDOM	12	2	24	3.41	OFTEN
NEVER	10	1	10		

N= 160

Σ fx=547

The researcher uses weighted mean and table to analyze and present the data.

In the example, it shows that **33 respondents answer ALWAYS, 33 answer OFTEN, 72 answer SOMETIMES, 12 answer SELDOM and 10 answer NEVER.**

Formula:
$$\bar{X} = \frac{\sum fx}{N}$$

X is the weighted mean

F is the frequency

X is the weight of each item

N is the total number of respondents

3	2.01- 3.40	SOMETIMES	This shows that the respondents are about 41-60% experienced language barriers a certain time.
2	1.81-2.00	SELDOM	This shows that the respondents are about 21-40% experienced language barriers in a few instances.
1	1.00- 1.80	NEVER	This shows that the respondents are about 1-20% experienced language barriers or not ever.

This is how you discussed the statistical treatment of data and scoring procedure used in the study.

In gathering the data which were tallied and tabulated by the researchers, the following statistical treatment was applied, $WM = \frac{\sum fx}{N}$, in which WM refers to the weighted mean, \sum means the summation, f is the frequency of the number of the respondents in every possible answer, x is the assigned weight and N is the total number of respondents or the sample size.

Scoring Procedures

In order to determine the language barriers experienced by the grade 12 students in afternoon session, the scoring procedure illustrated below were considered. The survey questionnaire is a liken scale survey, which contain statements relating to speaking difficulties of every student and examine which difficulty do students mostly experienced in the classroom, it has 16 items that related to the language barriers in English speaking.

Statements 1,2,3,4 are belong to inhibition, statements 5,6,7,8 are belong to lack of confidence, statements 9,10,11,12 are belong to lack of vocabulary and statements 13,14,15,16 are belong to mother tongue used. Assess the language barriers that experienced by the students their responses was tallied and tabulated into appropriate level: Always, often, sometimes, seldom and never. Response always have a weight of 5, response often have a weight of 4, response sometimes have a weight of 3, response seldom have a weight of 2 and never have a weight of 1. Each result was tallied and tabulated to get the overall results of the students who experienced language barriers in speaking English. A question with the answer of sometimes, often and always means that they

significantly relate their characteristics of the statement and issues described on.

In addition a question with seldom and never response to the statements means that they are not usually experience language barriers in English speaking. In all a total of 16 statements were provided to be linked by 5 choices which respondents could relate particularly the never, seldom, sometimes, often and always.

After the computation of the WM, you have to write a narrative discussion about the results.
(see sample below)

TABLE 1: Weighted Mean and Descriptive Category

(Have you been in a situation where you can't maintain an eye-to-eye contact due to nervousness in speaking English.)

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N=160		Σfx=547			

After the computation of the WM, you have to write a narrative discussion about the results.
(see sample below)

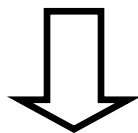
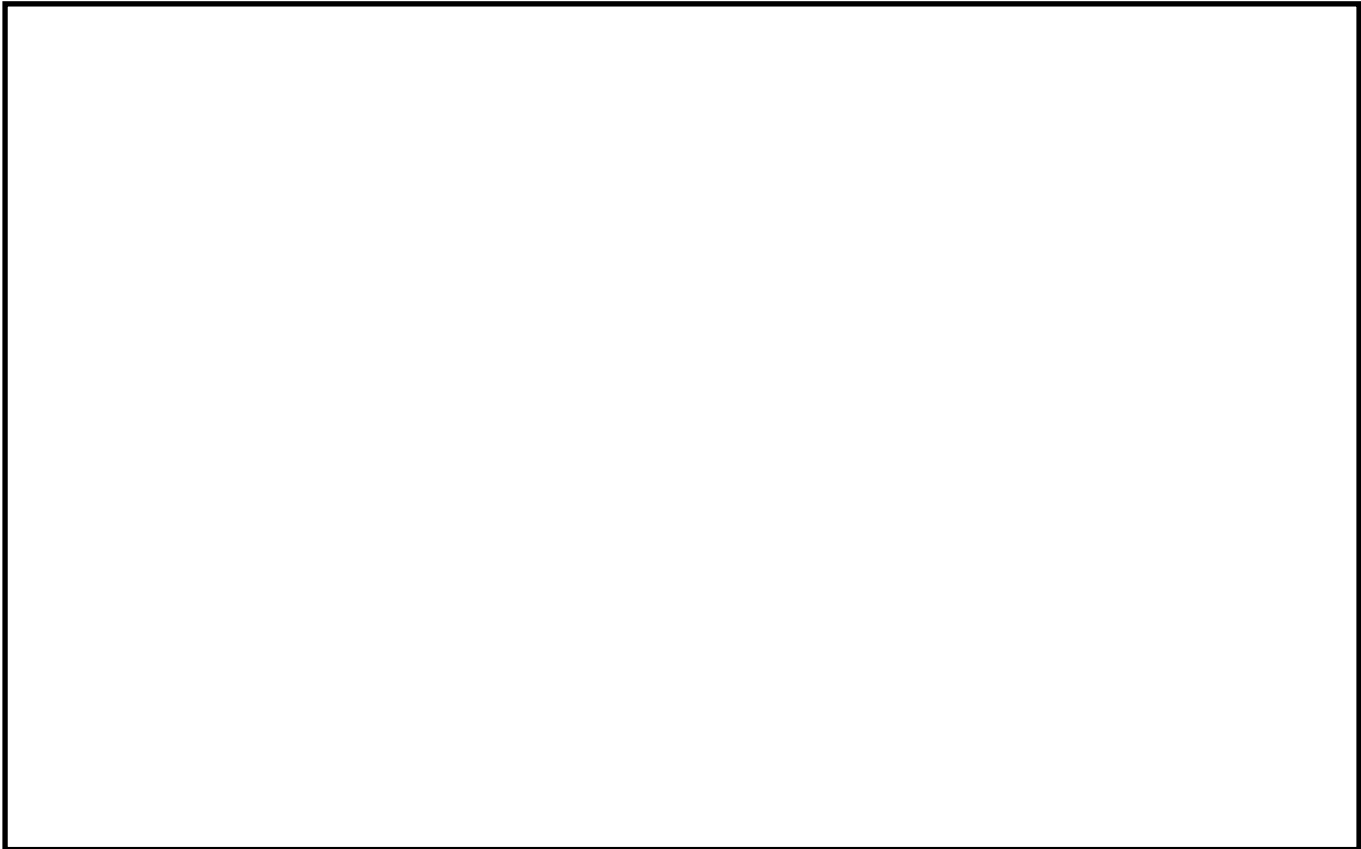


Table 1 presents the weighted mean and the descriptive category of statement no.1 from the responses of the respondents. Based from the results, 72 students answered *Sometimes* which has the highest number of responses. While 10 students answered *Never* which has also the lowest number of responses.

Hence, upon multiplying the frequency of a certain response to its corresponding scale, and then added together they obtained a weighted mean of 3.41 that falls under the descriptive category of Often. According to, Shogo Kajimura and Michio Naumra from the University of Kyoto found that trying to maintain eye contact makes it harder to focus on your own speaking. In other words, you're likely to speak more thoughtfully when you look away, rather than when you lock eyes with someone. According to Arlin Cuncic people have eye contact anxiety for various reasons. For those without a diagnosed mental health condition, avoidance of eye contact could be related to shyness or a lack of confidence. Looking someone in the eye while speaking can feel uncomfortable for those without a lot of practice making conversation or who tend to prefer not being in the spotlight.

MISSION 3

Instruction: Through the given data above, use any graph that can simplify the given data based on its frequency and number of responses.



MISSION 4

PERFORMANCE TASK

Instructions:

- 1. Interpret your data based on what you gathered from your survey.
- 2. Each group must construct the following parts:
 - ***Statistical treatment of data***
 - ***Scoring procedures***
 - ***Results(in table)***
 - ***Discussion of the results.***
- 3. Submit your manuscripts to your research teacher.

References:

- *An introduction to Quantitative Research - Practical Research 2, Torneo, A & Torneo H, 2017*
- *A Research paper entitled “Common Language Barriers in Speaking English among the selected Grade XII students in Asian Learning Center- Pajo Campus”*



CHECKPOINT:

Name: _____

Quarter: 2

Section: _____

Week: 12

PRACTICAL RESEARCH 2

I. Problem Solving. Solve the weighted mean of the following data below. Write your answers inside the box.

(Have you experienced any inconvenience while trying to speak the English language?)

Response	f	x	Fx	WM	DC
ALWAYS	25	5	1.		
OFTEN	31	4	2.		
SOMETIMES	70	3	3.	6.	7.
SELDOM	19	2	4.		
NEVER	11	1	5.		

N = 300

5	4.21 - 5.00	ALWAYS	This shows that the respondents are about 81-100% experienced language barriers in a few instances.
4	3.41- 4.20	OFTEN	This shows that the respondents are about 61-80% experienced language barriers or not ever.
3	2.01- 3.40	SOMETIMES	This shows that the respondents are about 41-60% experienced language barriers a certain time.
2	1.81-2.00	SELDOM	This shows that the respondents are about 21-40% experienced language barriers in a few instances.
1	1.00- 1.80	NEVER	This shows that the respondents are about 1-20% experienced language barriers or not ever.