



ENGLISH



Variables and Preliminaries

LESSON 3

TARGETS

- ★ To differentiate kinds of variables and their uses;
- ★ To write a research title;
- ★ To state research questions;
- ★ To present written statement of the problem; and
- ★ To design a research used in daily life.

VARIABLE

In research, variables refer to **characteristics or attributes that can be measured, manipulated, or controlled**. They are the factors that researchers observe or manipulate to understand the relationship between them and the outcomes of interest. (**researchmethod.net, 2022**).



KINDS OF VARIABLES

Role Taken by the Variable	Definition	Examples
Independent	manipulated	<i>Gamified Learning</i>
Dependent	changes as a result of the manipulation of the independent variable	<i>Academic Performance/ Lesson Comprehension</i>

KINDS OF VARIABLES

Value on Scale	Definition	Examples
Discrete	counts of individual items or values	<i>Number of tries in a game</i>
Continuous	measurements of continuous or non-finite values	<i>Height</i>

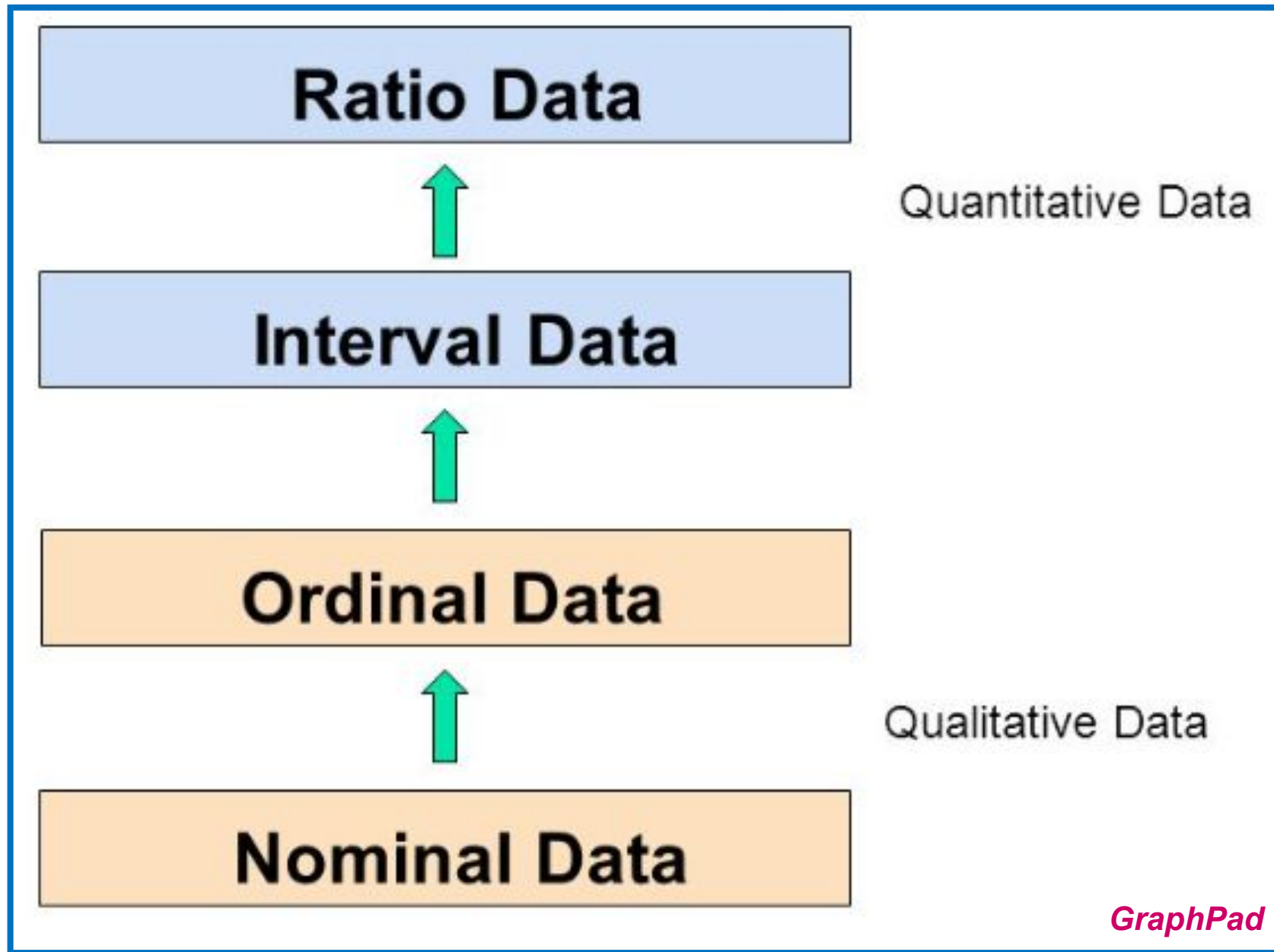
KINDS OF VARIABLES

Levels of Measurement	Definition	Examples
Nominal	provides a label, categorization or classification	<i>Game played</i>
Ordinal	provides an order or rank of the value	<i>Rank of Players</i>

KINDS OF VARIABLES

Interval	The difference between two points in a scale	<i>Time</i>
Ratio	Has nominal, ordinal and interval scales	<i>Weight</i>





Case 1

Ascorbic acid (vitamin C), if given megadose, is known to reduce the occurrence of cancer cells. To test this hypothesis, patients with known cancers were given megadose of vitamin C for a period of twelve weeks. After twelve weeks, screening tests were done to determine decrease of cancer cells.

Research Title

***The Effects of Ascorbic Acid
Megadose to Cancer Patients***



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Statement of the Problem

This study aims to determine the effects of Ascorbic acid megadose to cancer patients.



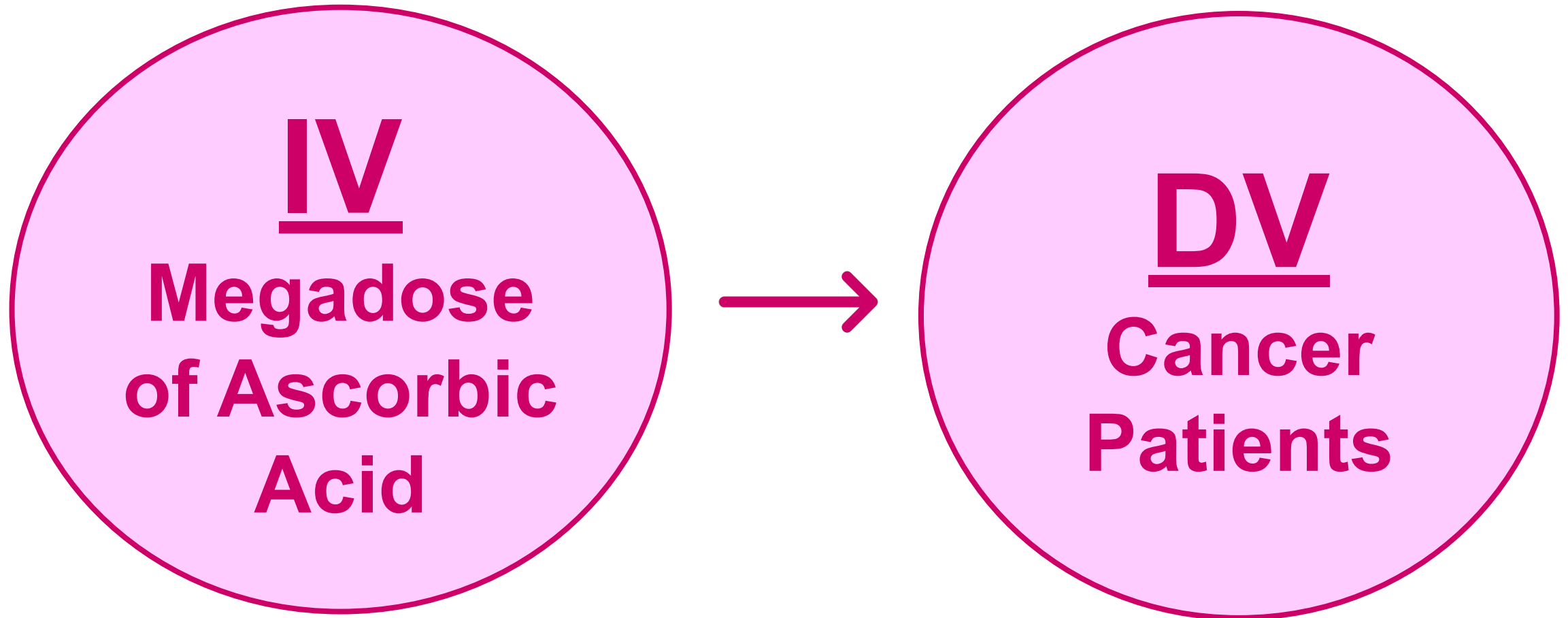
1. At which specific megadose is Ascorbic acid effective for treating cancer?

2. How can the cancer patients be described in terms of:
a. stage of cancer and
b. comparative laboratory tests results?

3. How can ascorbic acid affect cancer patients?

4. What implications can be drawn from the results of the study?

Conceptual Framework



Case 2

A group of young entrepreneurs are searching for the top 10 best-selling online products for people (ages 21-30) in Malolos, Bulacan. They conducted surveys to achieve the goals of their study.



Research Title

***An Analysis on the Best-Selling
Online Products to Consumers (Ages
21-30)***



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Statement of the Problem

This study aims to determine the best-selling online products to consumers (ages 21-30).

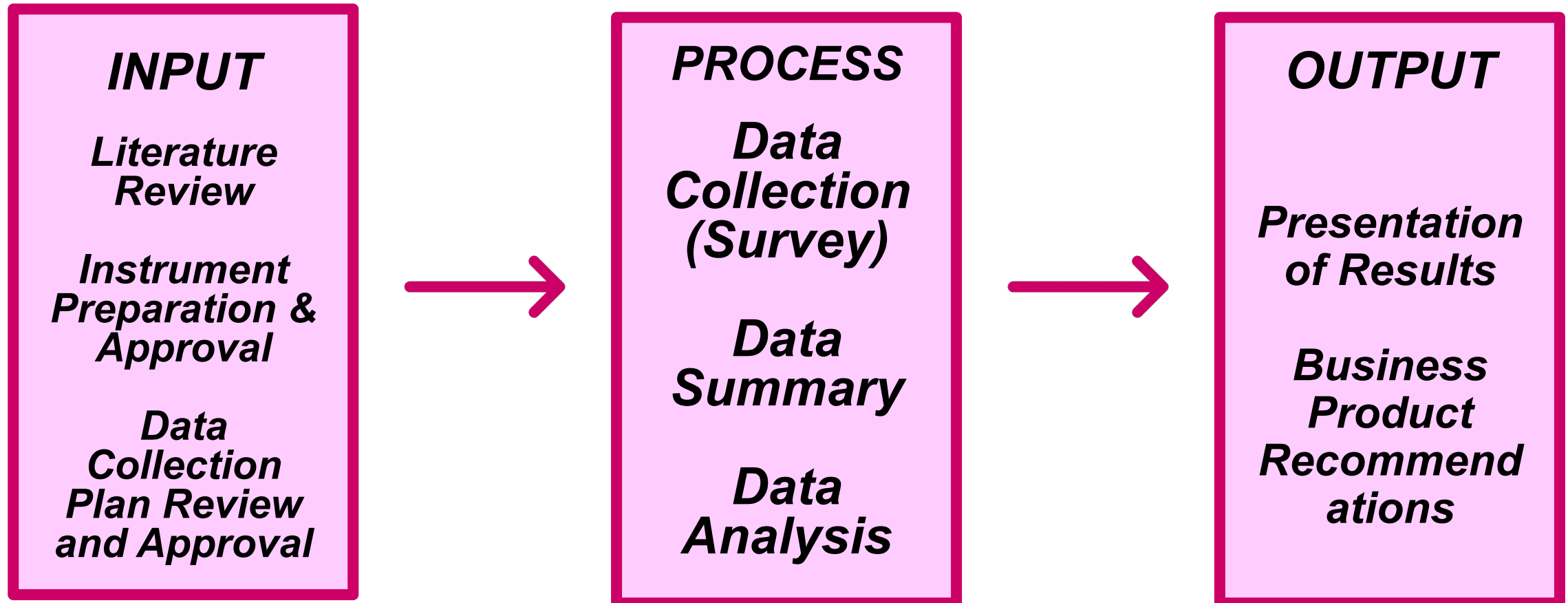


***1. How can the online platforms used by the consumers be described in terms of:
a. accessibility; and
b. user interface?***

***2. How can the best-selling online products be described in terms of:
a. kind; and
b. quality?***

3. What implications can be drawn from the results of the study?

Conceptual Framework



SUMMARY

A variable is anything that has quantity or quality that varies.



SUMMARY

KINDS of VARIABLE: IDDCNOIR

***Independent and Dependent
Discrete and Continuous
Nominal, Ordinal, Interval and Ratio***



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REMEMBER:

Circumstances and outcome
are always variable.”
– Steven Redhead



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