

What is hypothesis?

2020

WK 03 • 016-350

16

meaning.

- Hypothesis is a useful tool to solve all research problems and issues.
- A hypothesis refers to an assumption that is made to find out the solution of a problem.
- A hypothesis is a proposition or prediction to be tested, or a tentative statement of a relationship between two variables in the population being studied.

Example - Phone use (variable 1) $\longleftrightarrow$ Headache (variable 2)

I am trying to find out the relation between these 2 variables. I try to find out whether increase in the use of phone leads to increase in headache and vice-versa.

So I will start with a hypothesis/assumption that increase in use of phone will lead to increase in headache.

Then I will make a study to see

⊛ A hypothesis needs several tests with consistent and repeated support to gain broad acceptance.

JANUARY • FRIDAY

17 2020

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DECEMBER 2019

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JANUARY 2020

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whether my hypothesis/assumption is true or not.

9.00

Fate of hypothesis.

10.00

A hypothesis can be confirmed or rejected.

11.00

If it is confirmed, then it adds to our knowledge.

12.00

1.00

If it is not confirmed, that is it gets rejected, then also it adds to our knowledge.

2.00

3.00

* Validity of hypothesis is unknown.

4.00

* It is just a prediction (assumption).

5.00

* It is done before starting the research.

6.00

* It is a statement of relation which can be or may not be true.

* knowledge develops overtime as researchers test hypothesis. ⊛↑

FEBRUARY 2020

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TUESDAY • JANUARY

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Definition of hypothesis.

1 According to Prof. Morris Hamburg,

"Hypothesis in statistics is simple quantitative statement about a population".

- Hypothesis — assumption
- Statistics — branch of mathematics to solve problems in economics and research
- quantitative — a logical statement that can be quantified or measured.
- population — represents the area or field under study.
 Eg. phone ↔ headache.
 Population can be people of all age group (or) all people between 10 to 20 yrs of age.

2 "A hypothesis is a statement of quantitative nature about population".

JANUARY • WEDNESDAY

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DECEMBER 2019

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JANUARY 2020

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9.00
10.00
statement ~~statement~~ which I will check).
It is not in question form. (Eg- we can have a hypothesis that use of cell phone leads to headache. It is not a question. It is an assumed statement ~~statement~~ which I will check).

11.00
12.00
1.00
Hypothesis should be something that can be easily tested. It should be quantifiable.

2.00
3.00
It shows relation between two variables.

4.00
5.00
6.00
The word hypothesis is taken from the Greek language meaning to suppose or to assume.

Characteristics of hypothesis

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- ① It must have atleast 2 variables.
- ② It expresses a causal or cause-effect relationship between two variables.
- ③ It can be stated as a prediction or as an expected future outcome.
- ④ It is logically linked to a research question and a theory.
- ⑤ It is falsifiable, it is capable of being tested against empirical evidences and shown to be true or false.
- ⑥ It should be conceptually clear, specific and well designed.
- ⑦ It is focused or limited in scope.
- ⑧ It has mainly 3 components -
 - (a) The variables
 - (b) The population
 - (c) The relationship between the variables

FEBRUARY

MARCH

APRIL