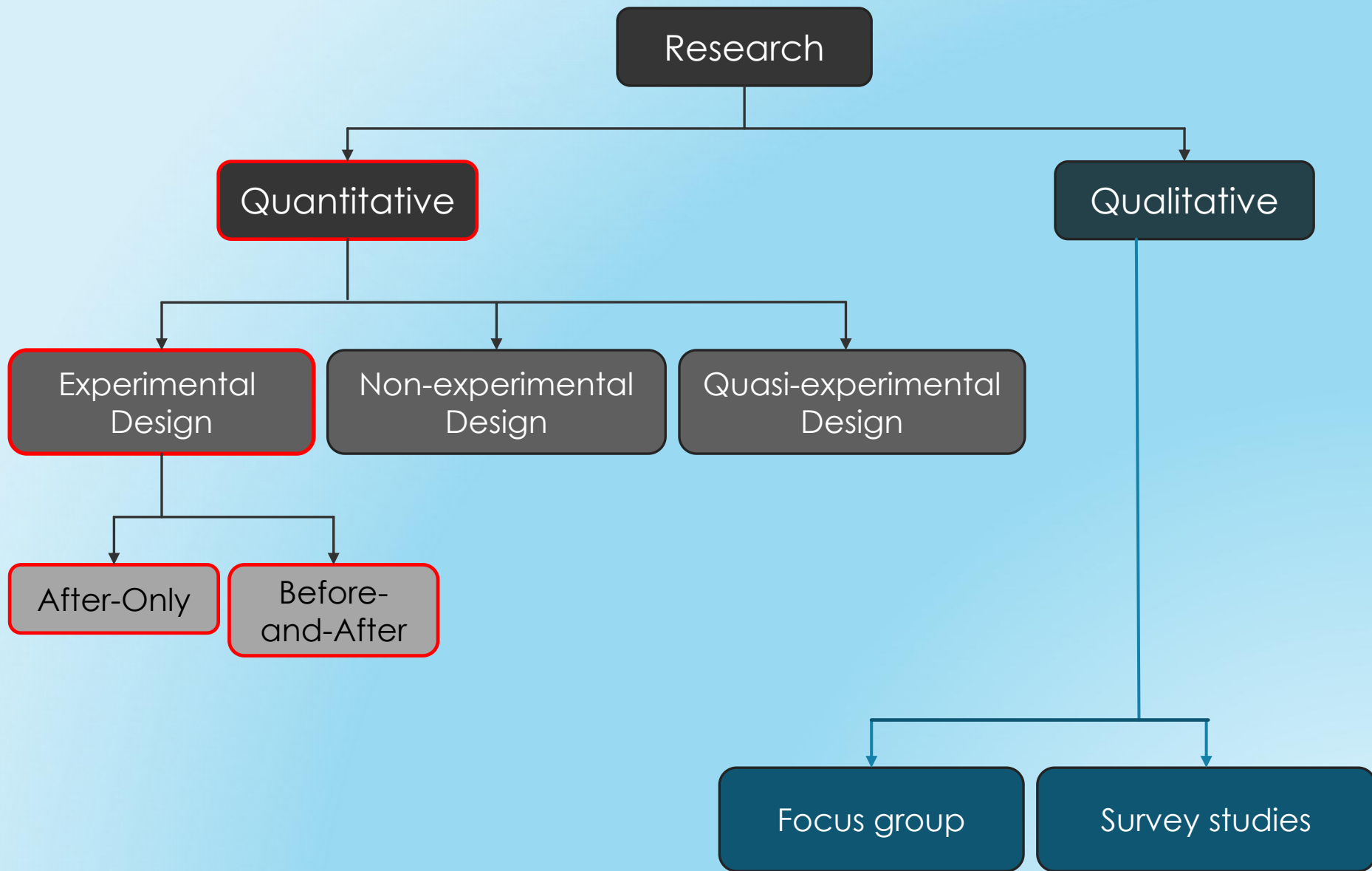
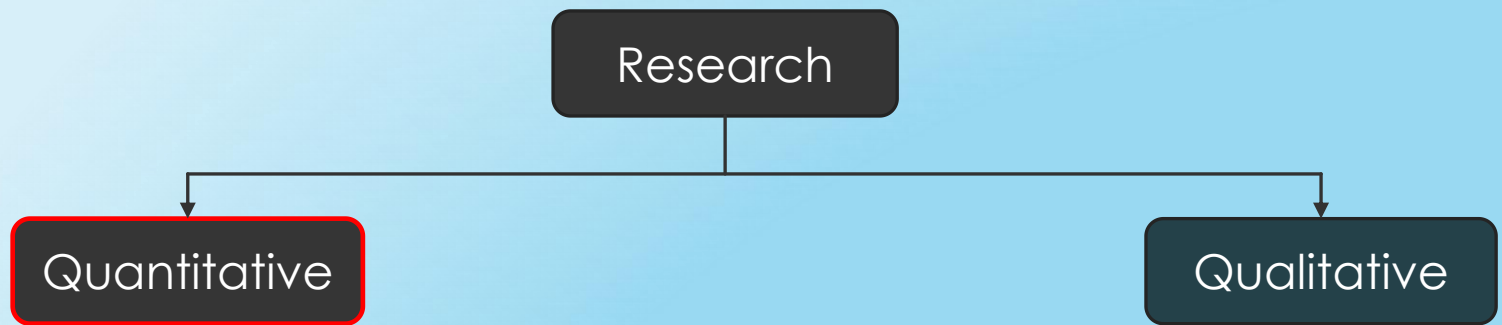


BACS2042 Research Methods

General Types of Research
Designs and Approaches





- Explaining phenomena by collecting **numerical** data.
- Analyzed using mathematically based methods (e.g.: statistics).

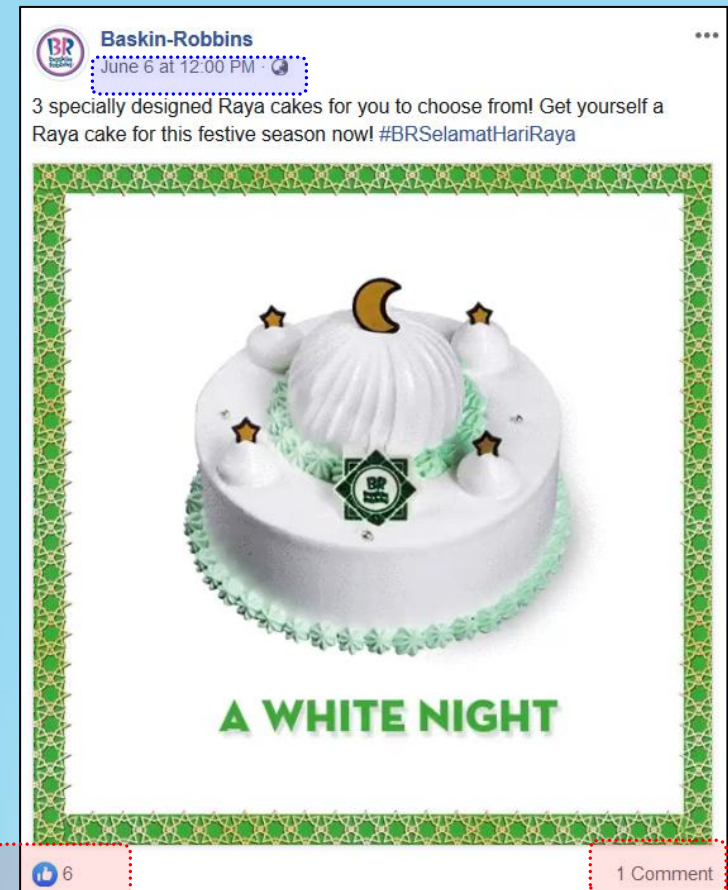


- Concerned with **qualitative** phenomena.
- E.g.: Investigating the reasons for human behavior.
- Aims at discovering the underlying motives and desires using in depth interviews



Question (Quantitative?/ Qualitative?)

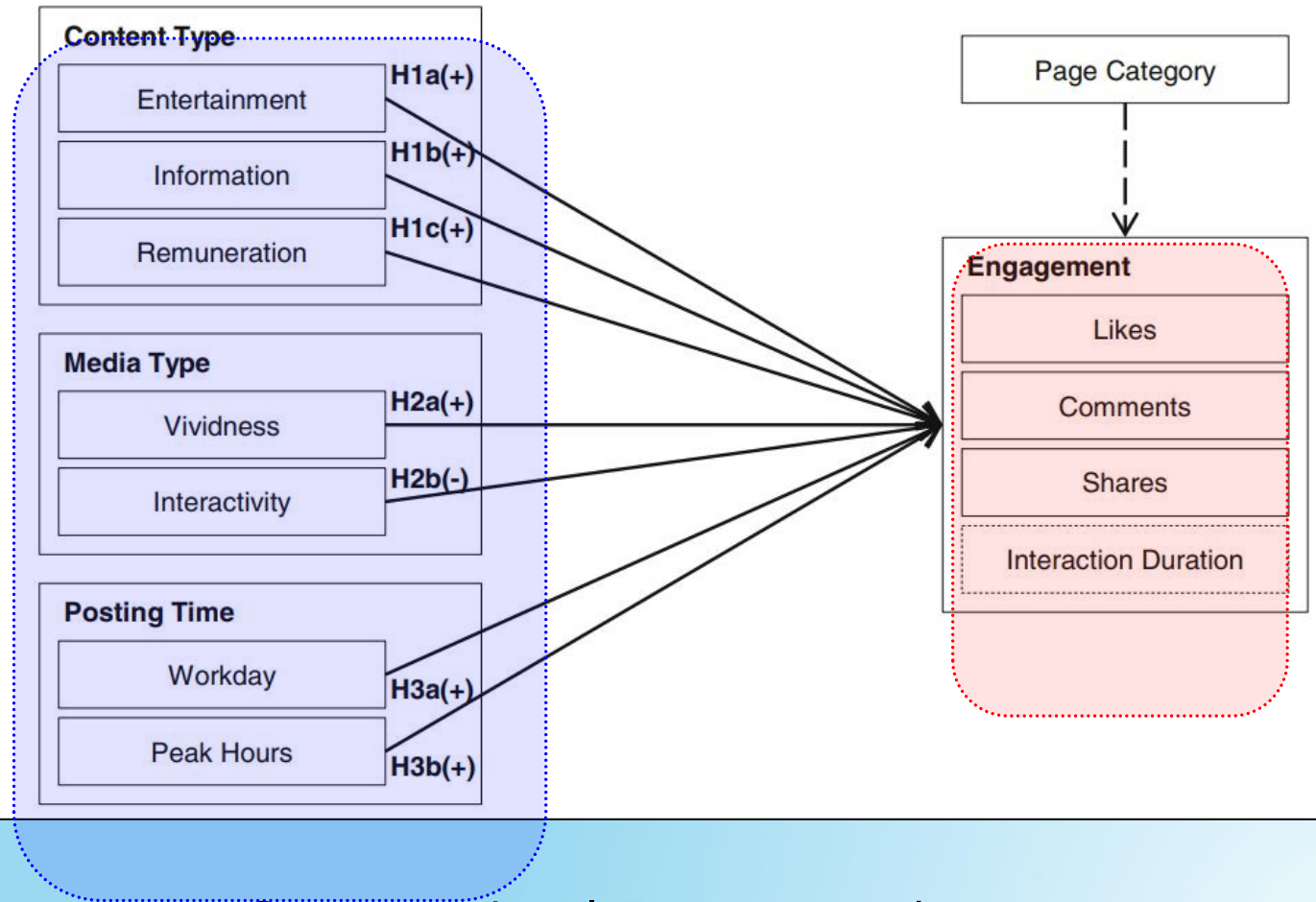
- Paper: Online **engagement** factors on Facebook brand pages



Question(Quantitative?/ Qualitative?)

► Online **engagement factors** on Facebook brand pages

Fig. 1 Conceptual framework for relations between post characteristics and online engagement



Conceptual Framework

Question(Quantitative?/ Qualitative?)

Objective

- ➡ To analyze the **factors** that influence the level of online customer **engagement** in Facebook

Research Question

- ➡ Which content should be posted to get higher level of online engagement? (media type and content type)
- ➡ When the content should be posted?

Question(Quantitative?/ Qualitative?)

► Hypothesis Formulation

“Previous studies showed *that consuming entertaining and informative content* is an important factor for participation in brand communities (Dholakia et al. 2004; Raacke and Bonds-Raacke 2008), where entertainment was found to have a stronger effect (Park et al. 2009).”

“Previous studies over temporal interaction patterns showed that *most of the user activities* on Facebook are undertaken during the *workdays* (Golder et al. 2007). Similarly, a study on online advertisement reported that the volume of CTR *drops* significantly over the *weekend* (Rutz and Bucklin 2008). ”

Hypotheses

H1: Posts which contain entertaining content cause the highest level of engagement.

H2: Posts created on workdays result in higher level of engagement

Question(Quantitative?/ Qualitative?)

- Paper: Additive Facebook use among university students



Question(Quantitative?/ Qualitative?)

Objective

- To explore the phenomenon of Facebook addiction among university students.

Question(Quantitative?/ Qualitative?)

► Facebook Addiction

“Excessive Facebook use has been found to harm psychological and social well-being of individuals and their personality [2]. Larkshmi [3] claims that for those who are addicted to Facebook and their personal life truly interrupted by their uncontrolled activities on Facebook. As further clarified, the following is the checklist for Facebook addiction disorder (FAD):

1. Check your Facebook account in the morning
2. Spend entire nights on the site, causing them to become tired the next day
3. Spend hours a day on Facebook
4. Whenever you are offline, you are just enjoying a daydream about the status updates and comment that have been received”

Question(Quantitative?/ Qualitative?)

Interview

2.2 Theme One: Compulsion to Check Facebook

Participants shared many statements linked to their opinions about Facebook use becoming compulsive and using Facebook more often than they primarily expected. All of them also reported the same statements that Facebook is the most important activity in their lives and starts to control their thinking. For example, one male participant stated, “I always try to open my mobile phone and go on Facebook and then I am thinking ‘why I am doing this?’”

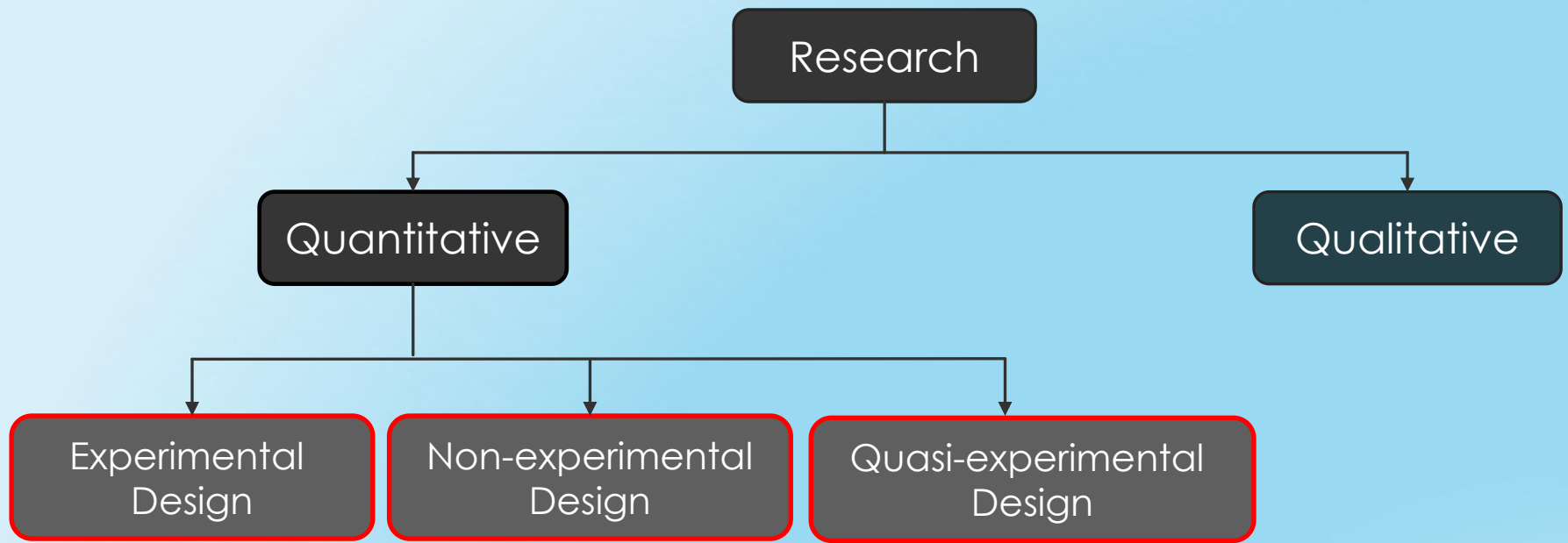
However, all male participants noted that they desired to be less Facebook usage, and neither of the female participants desiring to be less Facebook usage. One of the female participant stated, “I want to study more than past and get away from all of that.” Of course, during interview, she took out her smartphone and attempted to found Wi-Fi to check her Facebook account. Other male participants told me “It becomes an addiction, I think I should stop this” in relation to desiring to avoid Facebook usage.

2.3 Theme Two: High Frequency Use

Many participants reported regularly using Facebook through the day and some of them reported they were using Facebook all the time. For example, one of the female participants had been spending approximately 5 hours per day checking her Facebook account. Other participants eventually spend all their free time on Facebook web page. One of the male participants stated “I used Facebook when I first wake up, throughout my workday, during lunch break”. Female participants mentioned that many Facebook users post and share too much information on their page and it became an irresistible job for her to check the new status once a day. At that point she’s overwhelmed with a lot of information and it is very difficult for her to catch up every read news or watch a news clip at once. Thus she spent lots of time out on Facebook, and devoted much of her day to catching up on any information, which missing out once she is back on Facebook.

Quantitative vs Qualitative

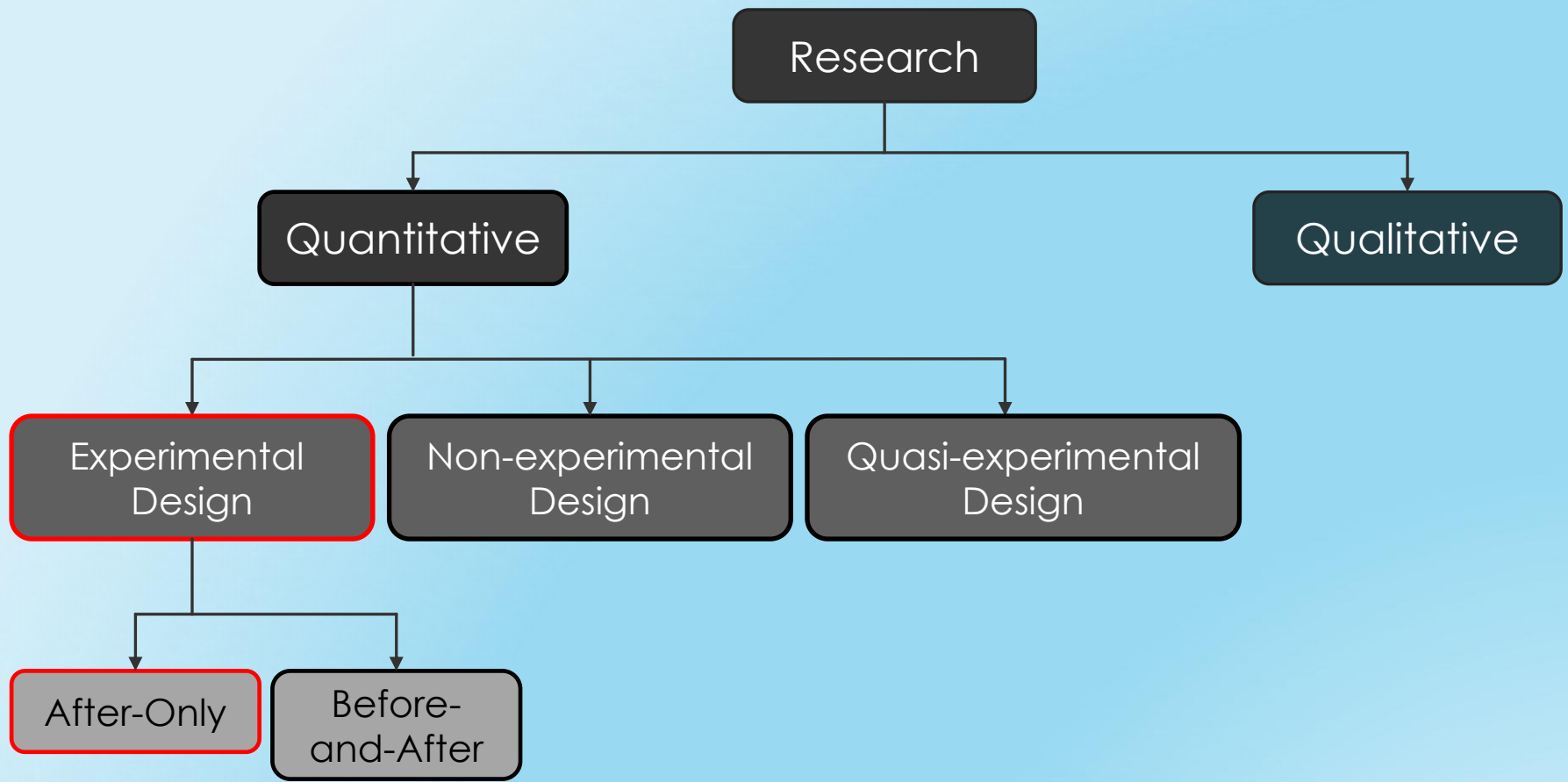
	Quantitative	Qualitative
Main purpose of investigation	To quantify extent of variation in a phenomenon	To describe variation in a phenomenon
Measurement of variables	Emphasize on	
	Measurement or classification of variables	Description of variables
Sample size	Greater sample size	Fewer cases
Focus of enquiry	Narrow focus in terms of extent of enquiry	Covers multiple issues
Dominant research value	Reliability and objectivity (not value-free)	Authenticity
Analysis of data	Subjects variables to frequency distributions, cross-tabulations or other statistical procedures	Subjects responses, narratives or observational data to identification of themes



- Experimental study involves the researcher manipulating the variable(s) and wait until it has produced the change. (dependent, independent var.)

“Observation under controlled conditions”

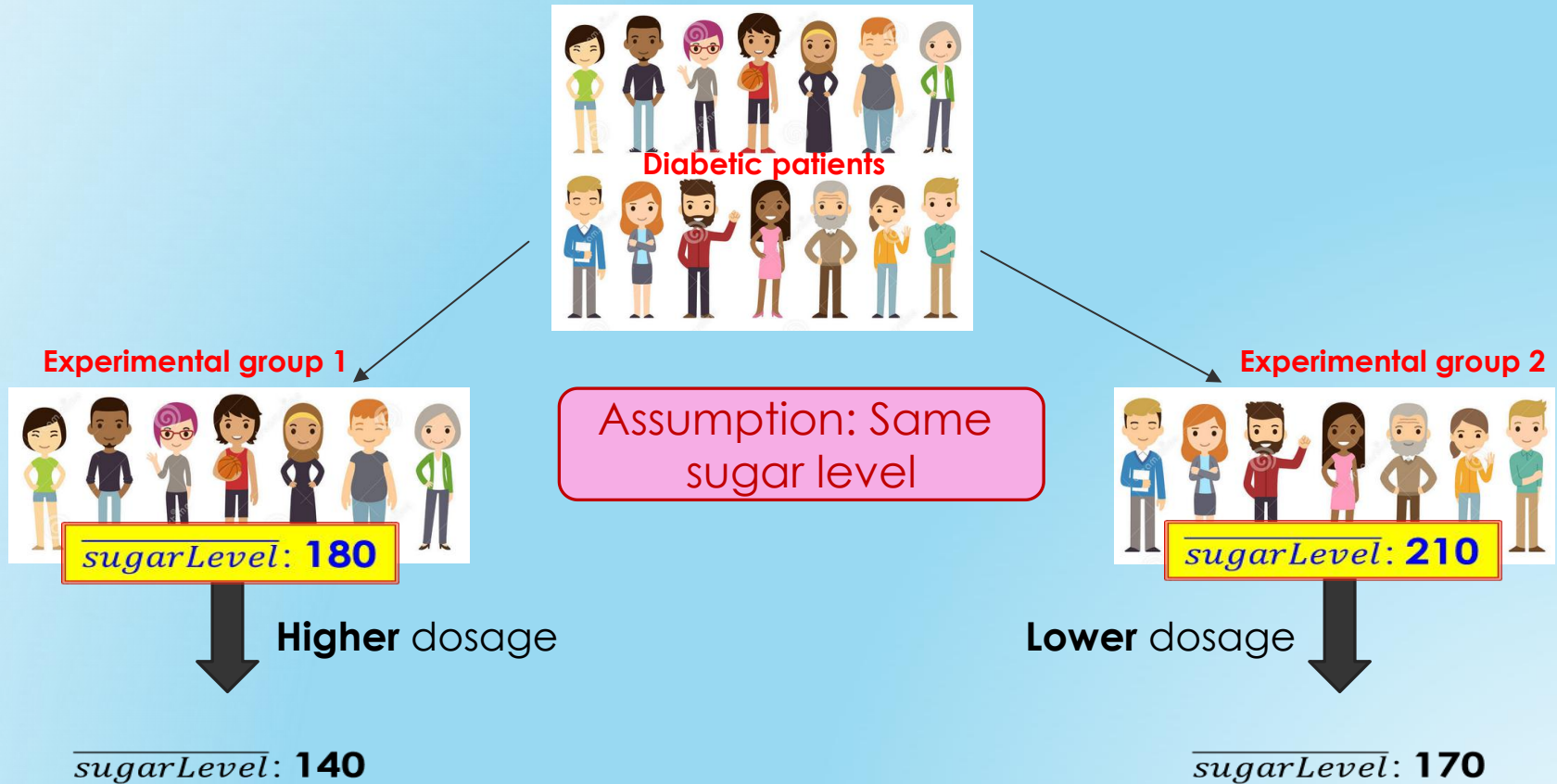




The change in the dependent variable is measured by the difference between the 'before' baseline and 'after' data sets.

Experimental: After-only Example

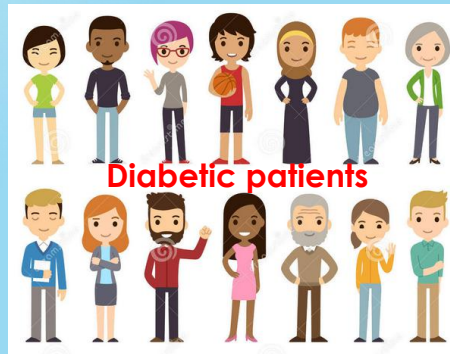
- To test a new drug to treat diabetes



What if Sugar Level of Group 1 patients is lower than G2 even before taking the drug?

Experimental: Before-and-After Example

- To test a new drug to treat diabetes.



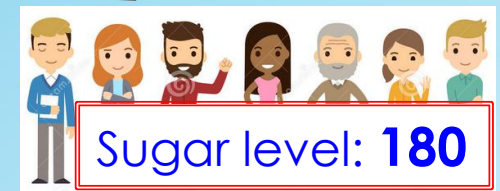
Experimental group 1



Higher dosage

Sugar level: **140**

Experimental group 2



Lower dosage

Sugar level: **170**

Dosage of X is affecting Y

Experimental: Control Group

► To test a new drug to treat diabetes.

Diabetic patients

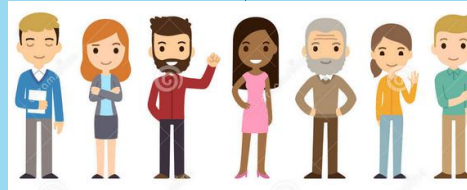


Experimental group 1



Higher dosage

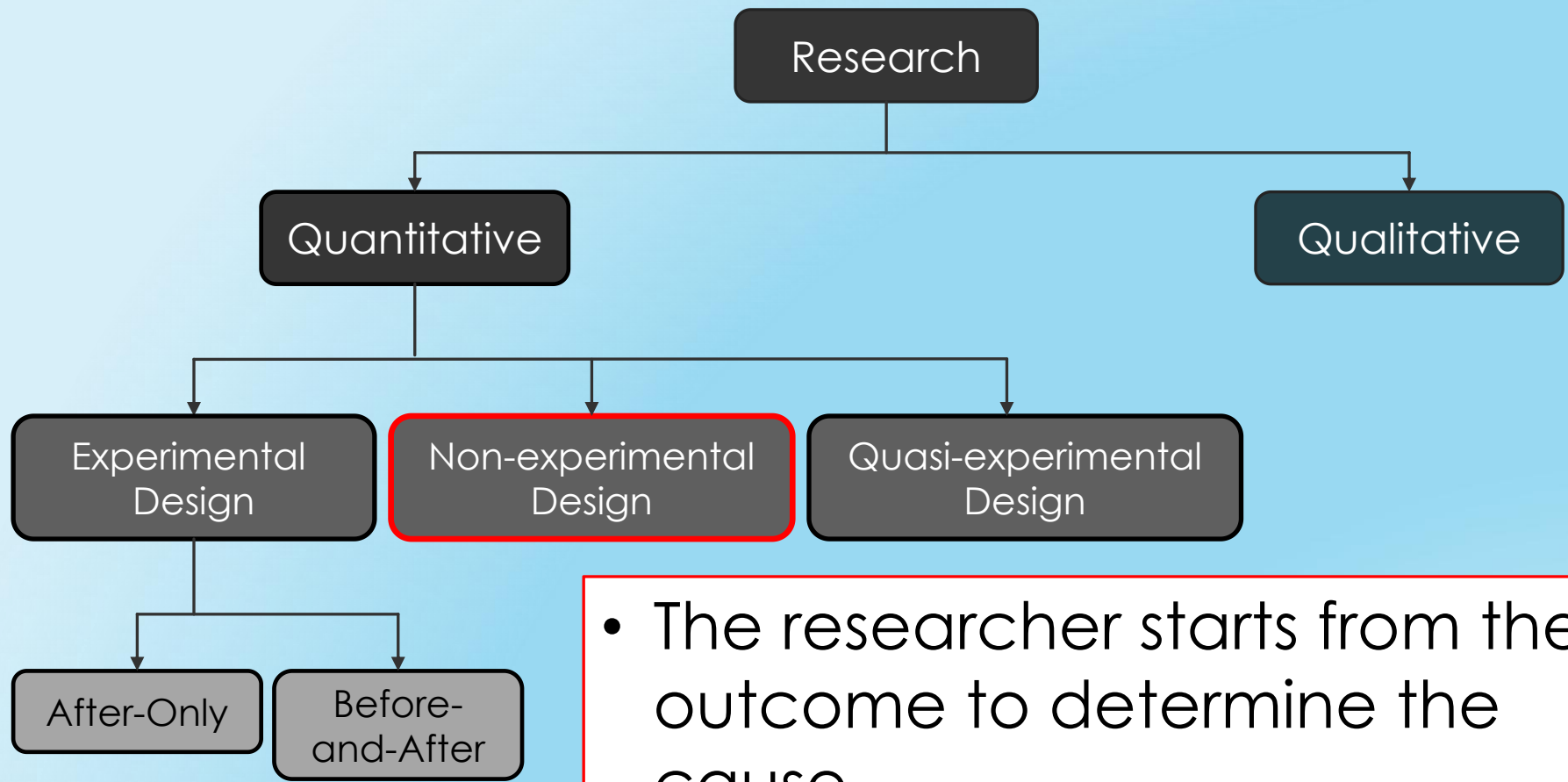
Experimental group 2



Lower dosage

Control group





- The researcher starts from the outcome to determine the cause.
- Does not manipulate any variables. (correlation)

Example

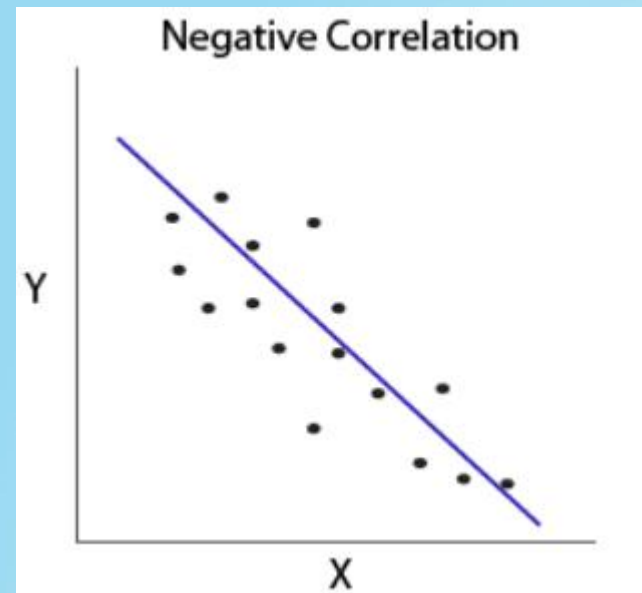
► To test a new drug to treat diabetes.

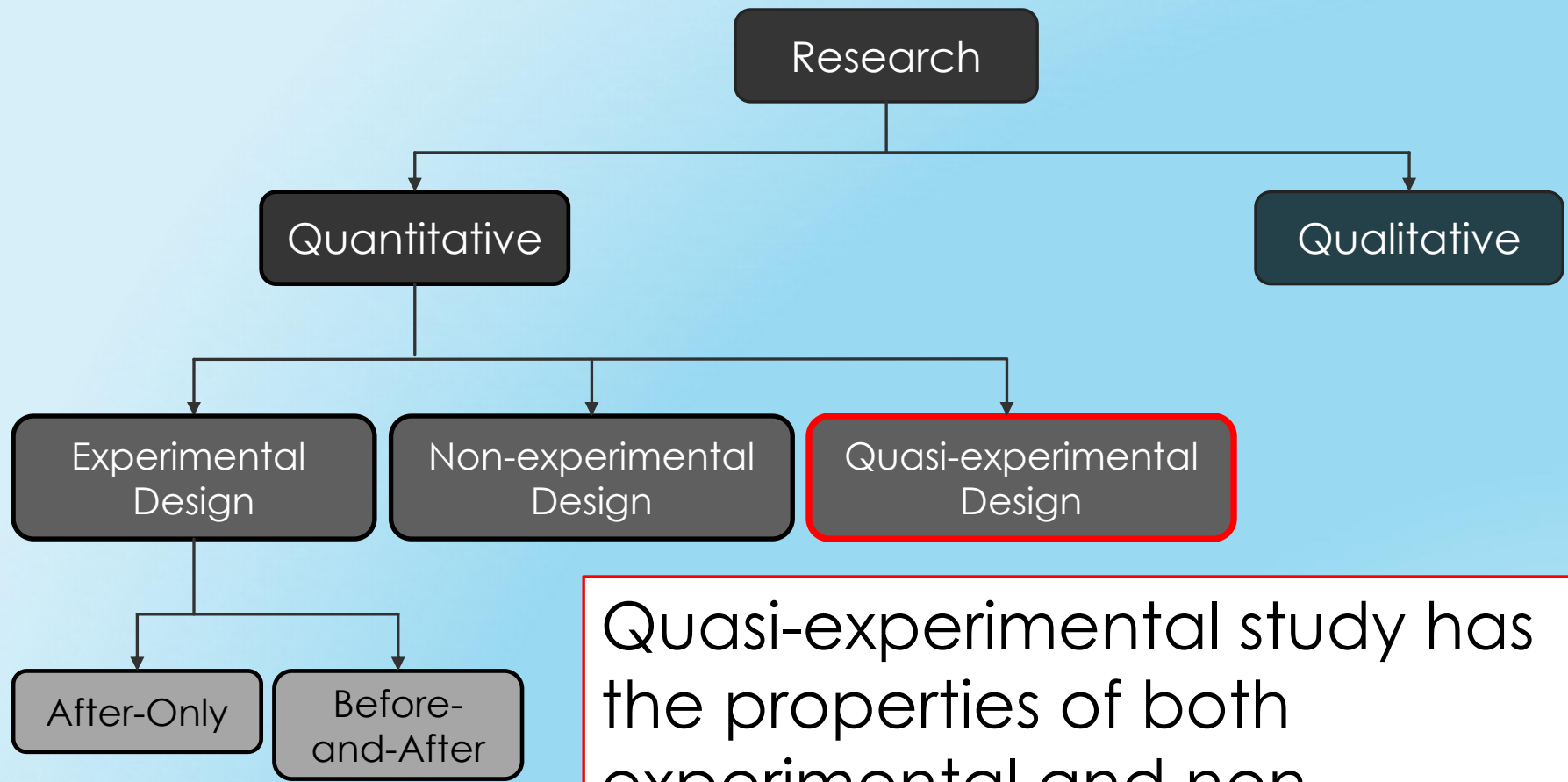
Manipulate **X** to see its effect on **Y**

Experimental	
X (dosage), ml	Y (sugar level)
0.25	180
0.30	179
0.35	178
0.56	160

Non-Experimental

Non-Experimental	
X (dosage), ml	Y (sugar level)
0.25	180
0.30	179
0.35	178
0.40	176





Quasi-experimental study has the properties of both experimental and non-experimental studies.

Qualitative

- Focus Groups
- Survey Studies
- Others: case study, oral history, participant observation, holistic research, community discussion forums, etc.

Focus Groups

Design:

- Select a group of people (8-12 people)
 - The group could comprise individuals drawn from a group of highly trained professionals or average residents of a community
- Identify the issues for discussion
- Decide the process of recording the discussion
 - E.g. time to meet for discussion
- The records of the discussions become the basis of analysis for findings and conclusions.

Focus Groups

- Expensive
- Used traditionally by company to identify new product or investigate ways to improve existing products
- Lack of predictability

Survey Studies

- Larger sample size (participants) compared to focus group
- Structured nature of the questionnaire (survey results are quantifiable)
- Can be used to predict future behavior

Survey Studies

Disadvantages:

- ✗ Difficult to execute: hard to find large number of people to take the survey
- ✗ High cost going around looking for large number of people

Solution:

- ✓ The Internet