SUAN SUNANDHA RAJABHAT UNIVERSITY

CONSUMER BEHAVIOR RESEARCH

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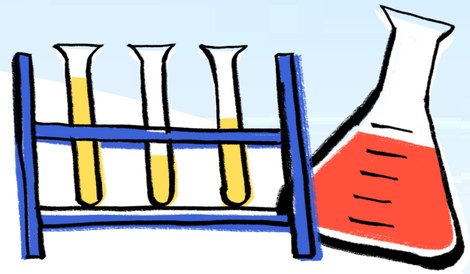
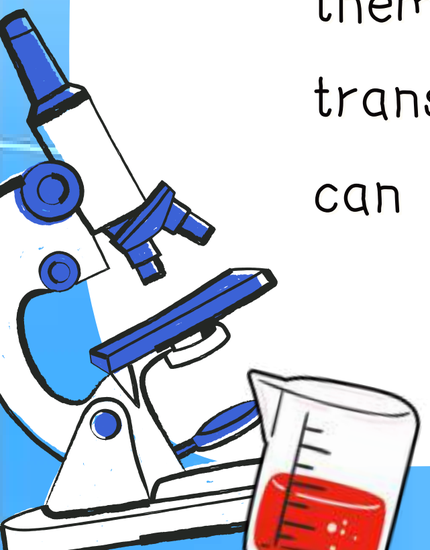
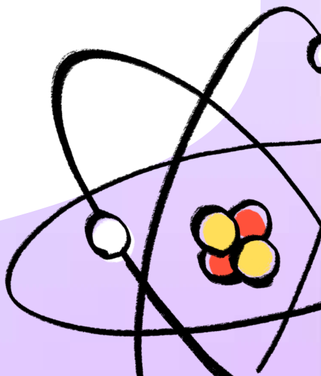


Consumer Behavior Research: A tool connecting theory to facts

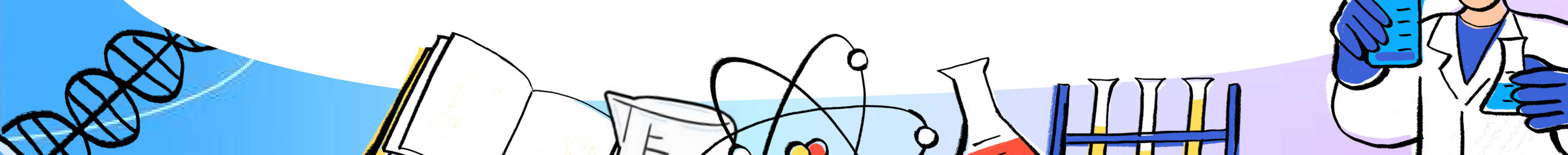
Consumer research is like an essential tool that connects theory with empirical facts to reduce risks in decision-making. It seeks to find the answer to “why“ consumers make such decisions in order to process them into a deep understanding (Consumer Insight). This knowledge will transform the status from a theoretical learner to a researcher who can find answers and solve problems with sound principles.





Consumer Research

Research is a systematic study, analysis, or experimentation conducted to discover facts or principles to be used as practical guidelines. It is a scientific study which, in the field of consumer behavior research, covers behaviors, mental processes, and various factors that influence consumption. This ranges from internal factors within the individual, such as perception, learning, and lifestyle, to external factors related to society and culture.



Importance and Benefits of Consumer Research

Consumer research holds several points of importance and benefits for consumers, business organizations, and the academic community, as follows:

1. Creating Deep Behavioral Understanding: It helps in understanding the entire consumer process, from decision-making, purchasing, using, evaluating, to product disposal. This includes identifying the causes and various factors that influence those behaviors.
2. Predicting Future Trends: Once the causes and conditions of behavior are understood, scholars can formulate rules or theories to accurately predict future consumer behaviors.

Importance and Benefits of Consumer Research

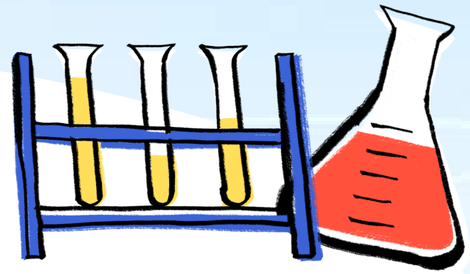
Consumer research holds several points of importance and benefits for consumers, business organizations, and the academic community, as follows:

3. Formulating Policies and Promoting Society: It enables the government or relevant agencies to issue social policies to promote appropriate consumption and reduce behaviors that are detrimental to the public, such as limiting advertising hours for alcoholic beverages to protect children and youth.

Importance and Benefits of Consumer Research

Consumer research holds several points of importance and benefits for consumers, business organizations, and the academic community, as follows:

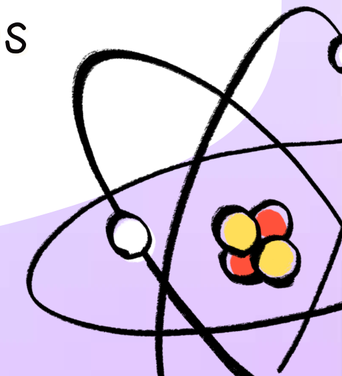
4. Enhancing Business Competitiveness: Research data serves as a critical criterion for developing new products that meet consumer needs and assists in designing business strategies to successfully and efficiently respond to market demands.

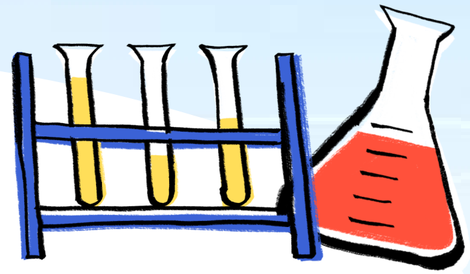


Consumer Research Process

The consumer research process consists of 5 steps as follows:

1. Identifying the Problem and Research Objectives: This is the step of defining the scope of the problem or the issue to be studied and clearly establishing the research objectives.
2. Research Design: This is the step of determining whether the research will be conducted in the form of quantitative or qualitative research, as well as creating the various instruments to be used for data collection.

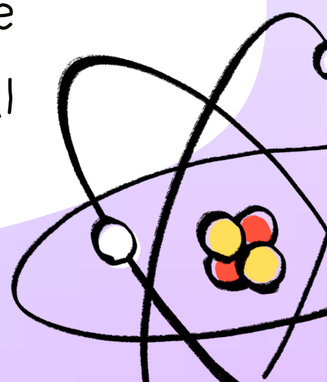




Consumer Research Process

The consumer research process consists of 5 steps as follows:

3. Data Collection: This is the step of gathering information from consumers or other sources by utilizing the research instruments that have been developed.
4. Data Analysis: This is the step of recording data, followed by performing analysis through statistical methods or other techniques, and interpreting the results of the data analysis.
5. Research Conclusion: This is the step of summarizing and discussing the research findings, including providing recommendations for practical application and future research.



Step 1: Identifying the Problem and Research Objectives

The researcher must define the scope of the problem or the issue to be studied, as well as clearly establish the research objectives. The problem may arise from challenges the business is currently facing, the researcher's own interests, or a desire to conduct a study to prove theories and concepts. Identifying and defining the research problem can be made easier by using the "6W 1H" principle to find the required answers as follows:

- Who (Target Group): Clearly identify the demographic characteristics of the group to be studied, such as gender, age, or occupation.

Step 1: Identifying the Problem and Research Objectives

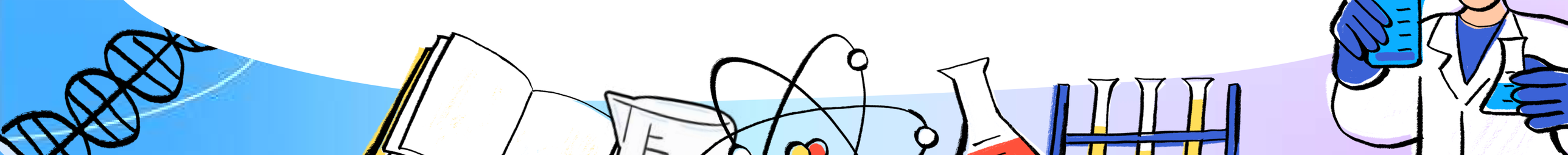
The “6W 1H“ Principle:

- What (What is bought): Identify the types of products or services that consumers choose to purchase or use.
- Why (Reason for buying): Study the causes or motivating factors that influence the decision, such as values or lifestyles.
- Who (Participants): Identify the individuals who influence the purchasing decision, such as reference groups, friends, or family members.

Step 1: Identifying the Problem and Research Objectives

The “6W 1H“ Principle:

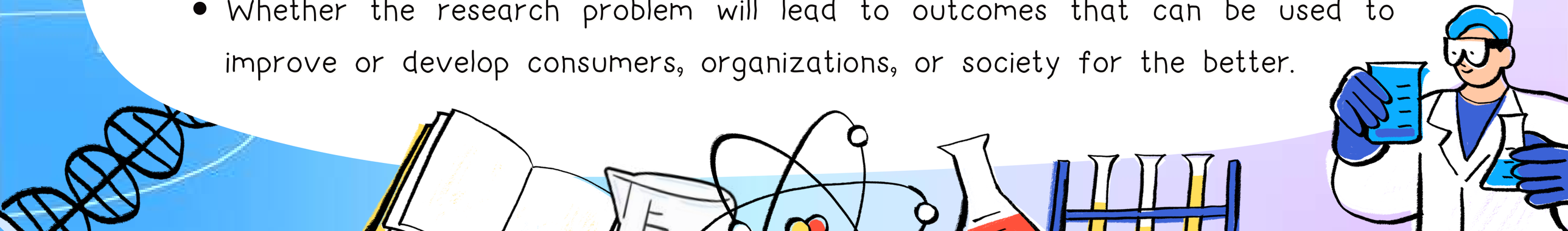
- When (When is it bought): Study the timing or frequency of consumption, such as seasonal patterns or specific times of the year.
- Where (Where is it bought): Study the sources or purchasing channels, such as department stores or online channels.
- How (How is it bought): Study the process and stages of the buying decision, from problem recognition to post-purchase feelings.



Step 1: Identifying the Problem and Research Objectives

Identifying the research problem is a crucial starting point of the research process. In this regard, the researcher should consider whether the research problem or issue holds importance and benefits in any of the following ways:

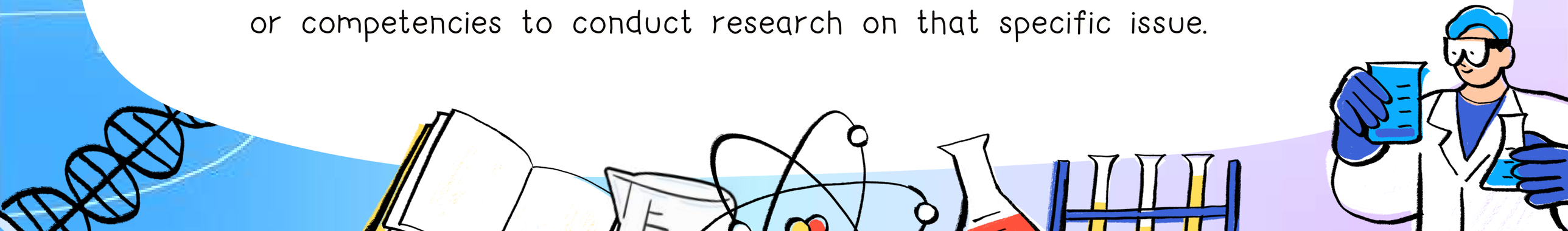
- Whether the research problem will generate new knowledge regarding consumer behavior.
- Whether the research problem will help in creating a greater understanding of consumer behavior.
- Whether the research problem will lead to outcomes that can be used to improve or develop consumers, organizations, or society for the better.



Step 1: Identifying the Problem and Research Objectives

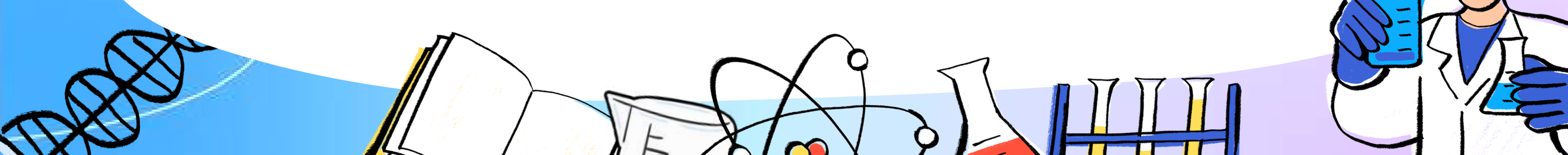
In addition, selecting a good research problem should take into account certain conditions that influence the success of the research, including:

- The research problem should not be too broad or too large, making it unsuitable for the available time, labor, and budget.
- The research problem must allow for actual data collection without excessive difficulty or being subject to excessive risks or dangers.
- The researcher must possess sufficient qualifications, knowledge, skills, or competencies to conduct research on that specific issue.



Step 1: Identifying the Problem and Research Objectives

- Identifying Objectives: This helps the researcher have a clear direction for the operation and understand how to design the research to obtain data that answers the problem. There may be multiple objectives to cover the research issues being studied, but they should be prioritized appropriately. Clear objectives will determine how to proceed in order to obtain empirical data to answer the established research issues.



Step 1: Identifying the Problem and Research Objectives

- Formulating Research Hypotheses: A hypothesis is a logically predicted answer that states the relationship between two or more variables. Formulating hypotheses helps indicate the scope of the problem, guides the search for facts, and assists in planning data collection. It should be based on theories, concepts, or past research, and written in the form of clear, concise, and provable declarative statements.

Step 2: Research Design

Consumer research formats commonly used today can be classified into two types: quantitative research and qualitative research (Schiffman & Kanuk, 2007).

Step 2: Research Design

Quantitative Research

- It focuses on seeking knowledge from quantitative data or numbers and uses statistical methods for analysis and interpretation. Importance is placed on processing quantifiable data in order to generalize findings to the population and predict behavior. This research follows the “Positivism“ approach, which emphasizes seeking knowledge that is provable through experience.

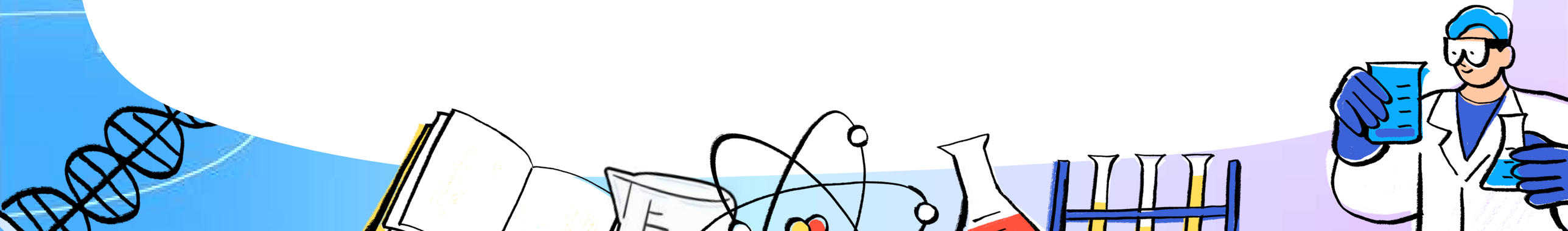
Step 2: Research Design

Qualitative Research

- It focuses on seeking knowledge from qualitative data, which consists of textual descriptions of characteristics and circumstances, and presents findings in a descriptive manner. The objective is to seek an understanding of consumer experiences following the "Interpretivism" approach, which emphasizes detailed understanding. This relies primarily on the process of interpretation within the context of time, place, values, and the culture surrounding the behavior.

Step 3: Data Collection

Quantitative research and qualitative research employ different data collection methods based on their objectives. For quantitative research, three popular data collection methods are used: 1. Observation, 2. Experimentation, and 3. Survey. For qualitative research, three popular data collection methods are used: 1. Depth Interview, 2. Focus Group, and 3. Projective Technique.



Step 3: Data Collection

Data Collection Methods for Quantitative Research:

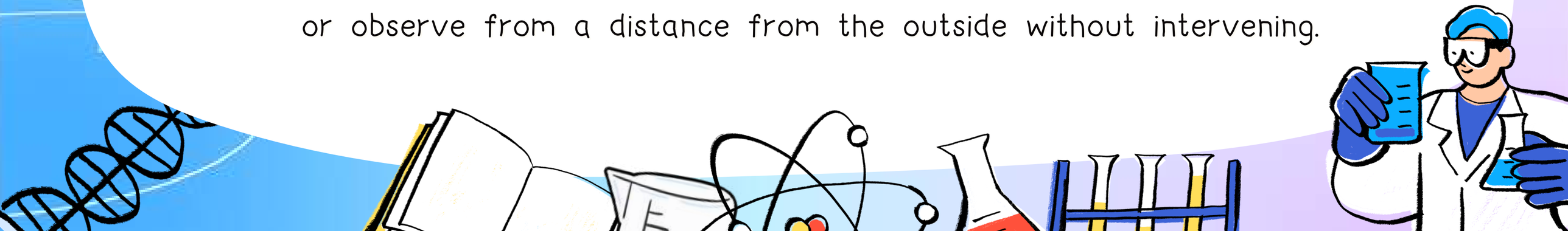
1. Observation: This is a data collection method used to understand the relationship between consumers and products by observing behaviors in the buying and usage processes. It can be conducted using either human observers or mechanical instruments for modern data collection, following technological advancements. Examples include using scanners to record product data, eye-tracking movements, or hidden cameras to record behavior.

Step 3: Data Collection

Data Collection Methods for Quantitative Research:

Observation methods can be classified into several formats, as follows:

- Observation Site (Natural vs. Contrived): Observing behavior in a natural setting (such as a department store) or in a situation that the researcher has simulated to be particularly realistic.
- Participation (Participant vs. Non-participant): The researcher may choose to participate in the events or activities with the consumers or observe from a distance from the outside without intervening.



Step 3: Data Collection

Data Collection Methods for Quantitative Research:

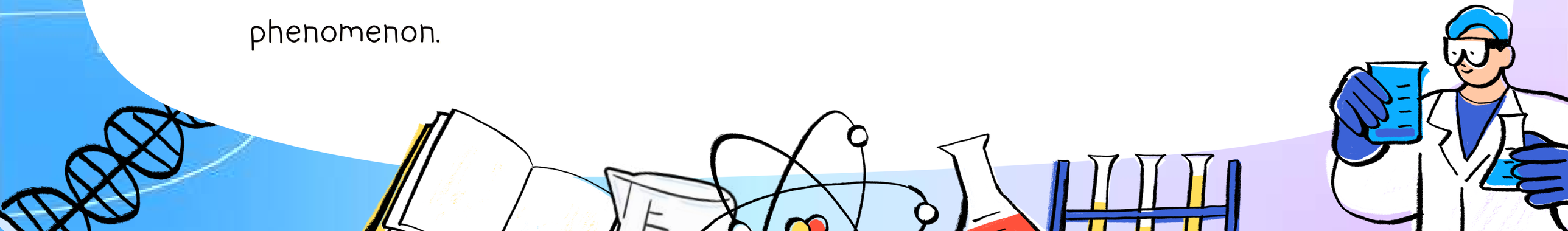
Observation methods can be classified into several formats, as follows:

- Awareness of the Subject (Overt vs. Covert):
  - Overt (Aware): Such as the "shadowing" technique (following consumers to various locations) or "in-home observation" (consumers consent to researchers installing cameras to observe family behavior), where data is collected and detailed questioning is conducted.
  - Covert (Unaware): To obtain the most natural data and prevent consumers from distorting their behavior to create a positive image.

Step 3: Data Collection

Data Collection Methods for Quantitative Research:

2. Experimentation: This is a systematic data collection method used to discover cause-and-effect relationships under simulated real-life situations. It involves manipulating independent variables to observe changes in dependent variables, while strictly controlling the situation. The researcher compares the differences between the experimental group and the control group to obtain factual conclusions about the phenomenon.



Step 3: Data Collection

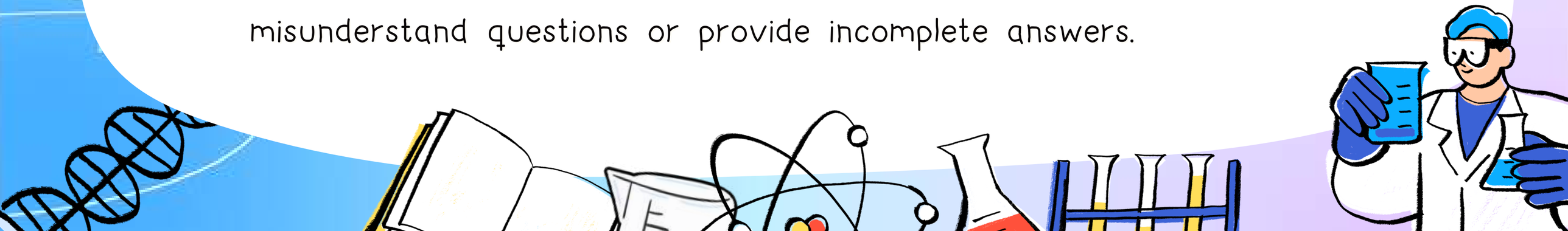
Data Collection Methods for Quantitative Research:

3. Survey: This is a data collection method involving asking questions and recording answers, which consumers are most familiar with. Currently, four formats are popular: mail surveys and telephone interviews, as well as face-to-face interviews and internet surveys.

Step 3: Data Collection

Data Collection Methods for Quantitative Research:

- Mail Survey: The researcher sends questionnaires for consumers to complete by themselves. They must be designed to be easy to understand and clear, with a convenient return method provided. This method is the least expensive and time-consuming, and respondents have the privacy to answer questions freely. However, there are limitations regarding low response rates, and respondents may misunderstand questions or provide incomplete answers.



Step 3: Data Collection

Data Collection Methods for Quantitative Research:

- Face-to-face Interview: This is a structured conversation using pre-prepared questions. It offers high flexibility in re-explaining or probing for clarity. It is considered the most effective method for obtaining accurate information from consumers and can be conducted in various locations, such as department stores or residences. However, it is a slow data collection method, has geographical limitations, and is the most expensive compared to other methods.

Step 3: Data Collection

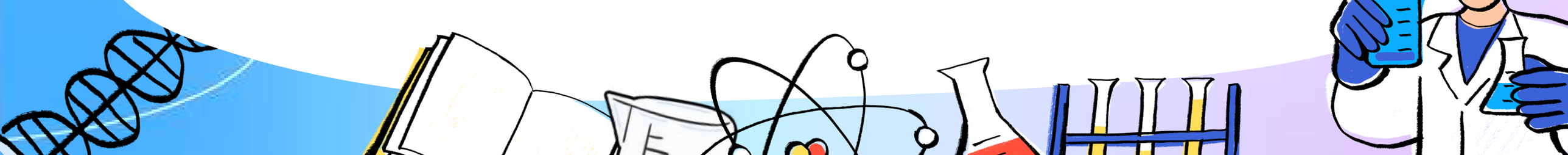
Data Collection Methods for Quantitative Research:

- Telephone Interview: This is a data collection method through telephone conversation, which should not exceed 15 minutes and should contain a limited number of questions that are not overly complex. Its advantages include being less time-consuming and less expensive than face-to-face interviews, allowing for rapid access to the sample group. However, its drawbacks are that the sample group can easily refuse or terminate the interview, and the researcher cannot observe the respondents' body language or personality.

Step 3: Data Collection

Data Collection Methods for Quantitative Research:

- Internet Survey: This is a data collection method via the internet by creating electronic questionnaires on web pages or sending them through electronic mail (E-mail). It can reach thousands of consumers simultaneously, and respondents have the flexibility to choose a convenient time to respond at their own pace. A distinct advantage is the low cost due to minimal staffing requirements, and the ability to establish a system for immediate processing and reporting of results.



Step 3: Data Collection

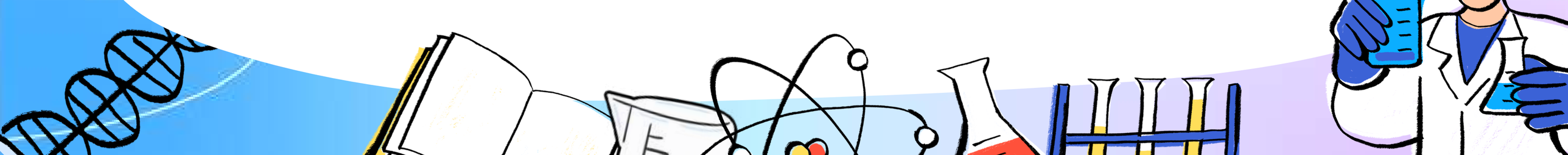
Data Collection Methods for Qualitative Research:

1. Depth Interview: This is a one-on-one conversation used to collect detailed and profound information, such as purchasing motives or the deep-seated feelings of consumers. The researcher prioritizes observing reactions or body language, typically taking about 30-60 minutes per interview, with audio recording. It can be performed in either an unstructured format that allows freedom of response or a semi-structured format where key issues are predetermined.

Step 3: Data Collection

Data Collection Methods for Qualitative Research:

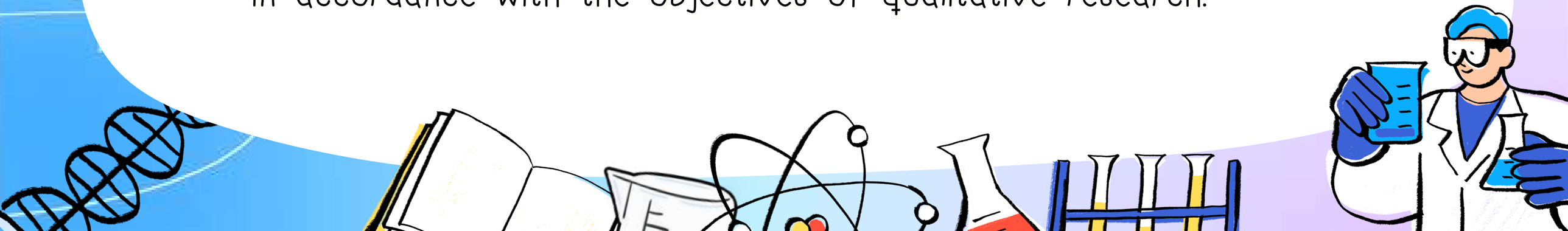
2. Focus Group Interview: This is a group process that is highly popular in qualitative research, emphasizing specificity in both participant qualifications and the issues studied. It aims to generate interaction within the group to gain deep understanding through the free expression of opinions. It can be used as a preliminary research tool to provide data for subsequent quantitative research with a larger sample size in the next stage.



Step 3: Data Collection

Data Collection Methods for Qualitative Research:

- A Focus Group Interview typically takes about 90 minutes and consists of 8-12 participants. The researcher acts as a moderator, stimulating the expression of opinions and controlling the discussion topics within a friendly atmosphere. Multiple groups are often conducted in different locations to obtain more reliable conclusions in accordance with the objectives of qualitative research.



Step 3: Data Collection

Data Collection Methods for Qualitative Research:

In consumer research, Focus Group Interviews may be applied in the following cases:

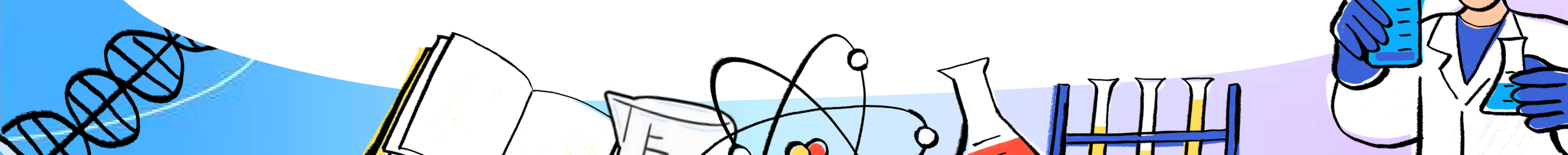
- Studying the consumer's buying decision process.
- Studying the sources of consumer attitudes and behaviors toward a particular product.
- Discovering how consumers perceive a specific product or service.
- Studying the effectiveness of advertising.
- Discovering the appropriate price for a product or service that consumers are willing to pay.

Step 3: Data Collection

Data Collection Methods for Qualitative Research:

In consumer research, Focus Group Interviews may also be applied in the following cases:

- Comparative studies of various products based on consumer perception.
- Exploring concepts for new product development or product testing.
- Discovering the reasons behind the target group's decision to purchase or not purchase a product.
- Studies regarding packaging design or product naming.



Step 3: Data Collection

Data Collection Methods for Qualitative Research:

3. Projective Technique: This is a data collection method that uses ambiguous stimuli, such as incomplete pictures or sentences, to prompt participants to describe their thoughts. It is based on the hypothesis that the interpretation of these stimuli will reflect hidden motives, values, needs, and internal characteristics. A key advantage is that it prevents respondents from becoming guarded or resistant, making it highly effective for revealing concealed information.

Step 3: Data Collection

Data Collection Methods for Qualitative Research:

Popular Projective Techniques used in research include the following:

1. Word Association: Asking respondents to say the first word that comes to mind when they see a specific word. This is used to study reactions to a brand or to compare competitiveness.
2. Sentence Completion: Having respondents complete unfinished sentences based on the first feeling that arises in their mind.
3. Story Completion: Having respondents read an incomplete story and describe in their own words how the story would proceed and end.

Step 3: Data Collection

Data Collection Methods for Qualitative Research:

Popular Projective Techniques used in research include the following (continued):

4. Cartoon Completion (Bubble Test): Having respondents fill in the dialogue that a cartoon character should say, while also critiquing the personality or habits of that character.
5. Third-person Technique: Having respondents express their opinions on a situation by imagining themselves as someone else (such as a friend or neighbor). This encourages respondents to reveal their true feelings and thoughts by projecting them onto a third party.

Step 3: Data Collection

Measurement and Data Collection Instruments:

- Measurement: This is the assignment of numbers to the characteristics of individuals, objects, or events to reflect their magnitude or level according to established rules. Measured characteristics encompass both directly observable physical traits and psychological traits that must be inferred from indicators, such as scores from attitude scales. The rules used for assigning numbers must be standardized, clear, and consistently applied to everyone, ensuring that differences in scores truly represent the actual differences between individuals.

Step 3: Data Collection

Measurement and Data Collection Instruments:

- Assigning numbers to measured characteristics requires a system of numerical assignment called a "Scale" (Stevens, 1946), which can be classified into four types as follows:

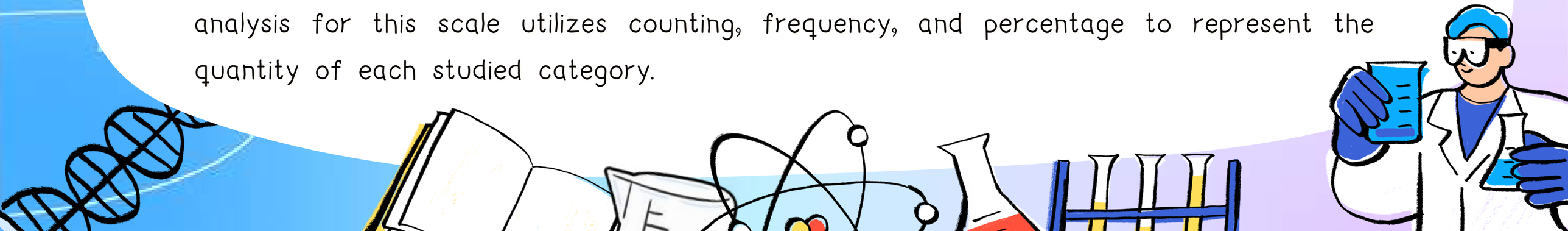
    1. **Nominal Scale**
    2. **Ordinal Scale**
    3. **Interval Scale**
    4. **Ratio Scale**

Step 3: Data Collection

Measurement and Data Collection Instruments:

1. Nominal Scale: This involves assigning numbers to things with the sole purpose of representing their characteristics, rather than indicating quantity. For example:
    - A. Gender: Assigning 1 for Male and 2 for Female.
    - B. Education Level: Assigning 1 for Primary Education and 2 for Secondary Education.

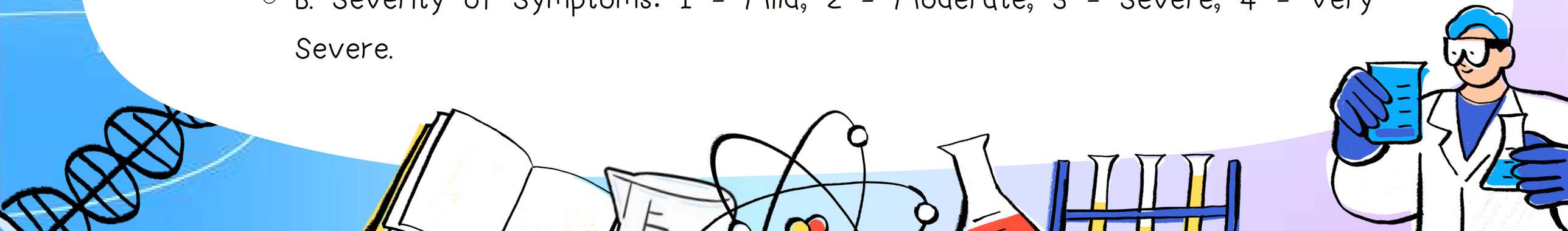
The nominal scale places individuals with identical characteristics into the same group, ensuring that each person belongs to only one category (mutually exclusive). Statistical analysis for this scale utilizes counting, frequency, and percentage to represent the quantity of each studied category.



Step 3: Data Collection

Measurement and Data Collection Instruments:

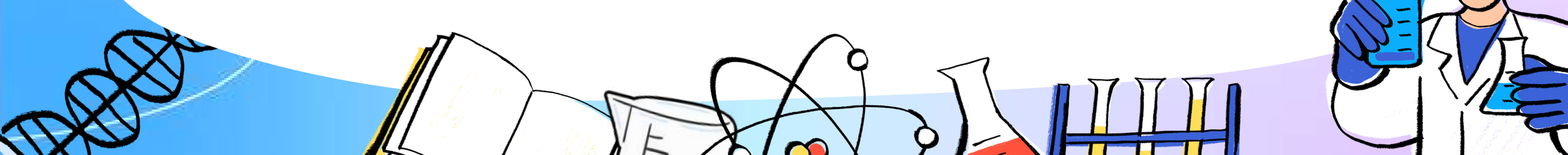
2. Ordinal Scale: This involves assigning numbers to indicate the rank or order of what is being measured. it only indicates whether a status is higher or lower but does not specify the exact magnitude of difference. Furthermore, the distance between each rank is not necessarily equal. For example:
    - A. Satisfaction Level: 5 = Strongly Agree, 4 = Agree, 3 = Neutral, 2 = Disagree, 1 = Strongly Disagree.
    - B. Severity of Symptoms: 1 = Mild, 2 = Moderate, 3 = Severe, 4 = Very Severe.



Step 3: Data Collection

Measurement and Data Collection Instruments:

3. Interval Scale: This involves assigning numbers with equal distances or intervals to represent differences in what is being measured. It cannot be compared as a ratio, and the number 0 in this scale is merely an arbitrary point. Because 0 is an arbitrary zero, a score of 0 does not mean the characteristic is entirely absent; rather, it is simply a designated threshold. For example:
    - Temperature: 0°C, 0°F, or 0°K



Step 3: Data Collection

Measurement and Data Collection Instruments:

4. Ratio Scale: This is a measurement that features equal intervals and an absolute zero (true zero), which signifies the actual absence of the measured characteristic. This allows numbers to be compared in terms of ratios. Its distinct advantage is the ability to state how many times greater one quantity is than another. For example:
    - A. Length: 10 meters is twice as long as 5 meters.
    - B. Length: 0 meters (signifying no length).
    - C. Currency: 0 Baht (signifying no money).

Step 3: Data Collection

Question and Answer Formats:

Developing a questionnaire to collect data from consumers requires determining the question and answer formats to be used. This ensures that the questionnaire is easy for consumers to complete. Generally, the most popular question formats consist of the following:

- Rating Scale
- Ranking Scale
- Multiple Choice Scale
- Semantic Differential Scale

Step 3: Data Collection

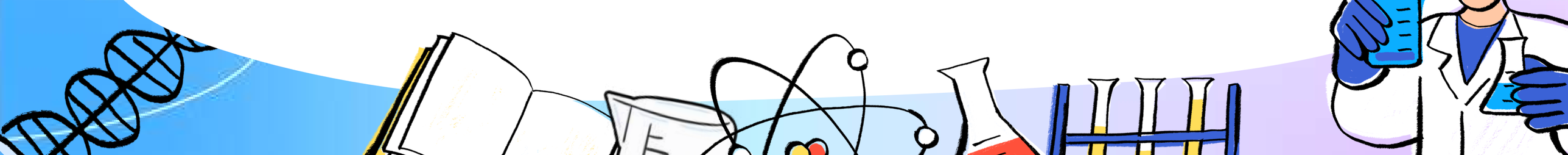
Question and Answer Formats:

- Rating Scale: Respondents express their level of opinion toward a given statement by circling or marking a specific number, such as from 1 (Strongly Disagree) to 5 (Strongly Agree).
- Ranking Scale: Respondents are asked to arrange the items being measured according to specified criteria, such as ordering them by level of preference (from most to least preferred) or by importance (from most to least important).

Step 3: Data Collection

Question and Answer Formats:

- Multiple Choice Scale: Respondents select only one answer that best reflects their opinion or fact from a list of options pre-prepared by the researcher.
- Semantic Differential Scale: This uses pairs of opposite adjectives placed at each end of a continuum (e.g., Modern-Outdated, Beautiful-Unattractive). Respondents are asked to mark the position that best represents their feelings toward that particular product.



Step 3: Data Collection

Question Content:

Guidelines for Writing Questionnaire Items (Utumporn Jamornmarn, 1987) are as follows:

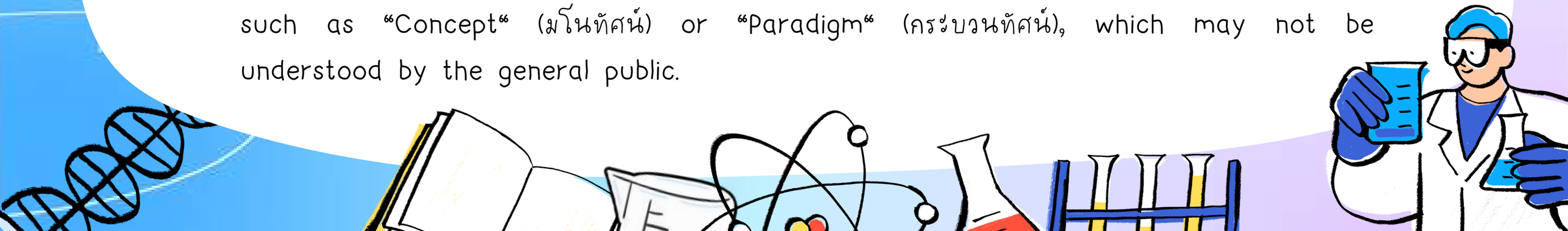
1. Each question should address only a single issue: Avoid double-barreled questions to ensure clarity in responses.
2. Write questions that are easy to understand: The language used should be appropriate for the respondents' background, such as their age or education level.
3. Avoid leading questions: For example, phrases like "Do you agree that..." which may influence the respondent's answer.

Step 3: Data Collection

Question Content:

Guidelines for Writing Questionnaire Items (Utumporn Jamornmarn, 1987) are as follows:

4. Avoid using double negatives: For example, “You do not believe that entrepreneurs will not be dishonest with customers.“ (This can cause confusion for respondents).
5. Avoid questions that are too personal: Asking for excessive personal information can make respondents feel uncomfortable or intruded upon.
6. Avoid using technical jargon: Steer clear of terms known only to specific groups, such as “Concept“ (มโนทัศน์) or “Paradigm“ (กระบวนทัศน์), which may not be understood by the general public.

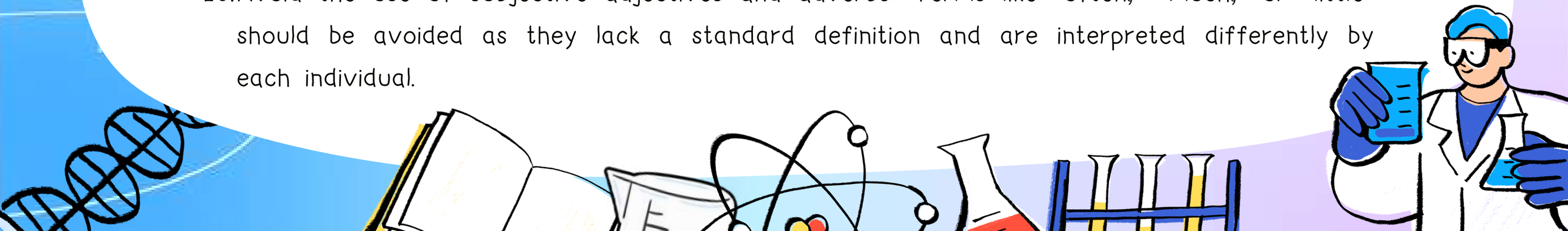


Step 3: Data Collection

Question Content:

Guidelines for Writing Questionnaire Items (Utumporn Jamornmarn, 1987) are as follows:

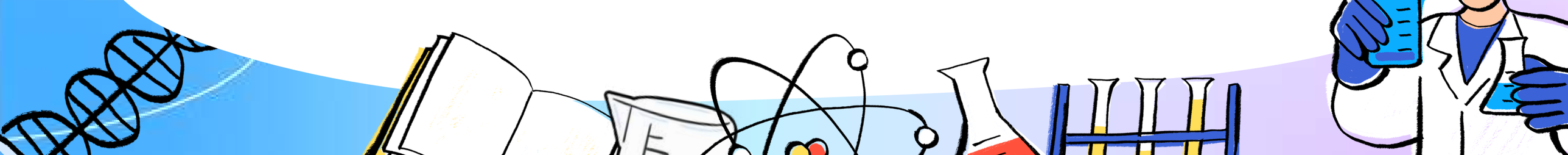
7. Avoid using abbreviations that are not widely known: Using obscure acronyms can lead to misunderstanding among respondents.
8. Avoid sensitive questions that may offend respondents: This includes topics such as religion, sexual matters, or institutions held in high regard or worshiped by the general public.
9. Avoid ambiguous or vague questions: For example, "Do you like visiting entertainment venues?" (The term "entertainment venue" can be interpreted in many different ways).
10. Avoid the use of subjective adjectives and adverbs: Terms like "often," "much," or "little" should be avoided as they lack a standard definition and are interpreted differently by each individual.



Step 3: Data Collection

Determining Sample Size:

Determining sample size is crucial for quantitative research to ensure that findings can be reliably generalized to the population. If the sample size is too small, it will negatively impact the credibility of the results. Researchers must consider both budget constraints and the desired level of confidence. In consumer behavior research, two primary methods are commonly used to determine an appropriate sample size to ensure suitability and minimize research error.



Step 3: Data Collection

Determining Sample Size:

1. Determining Sample Size via Calculation: Sample size can be calculated using the formula developed by Yamane (1967) as follows:

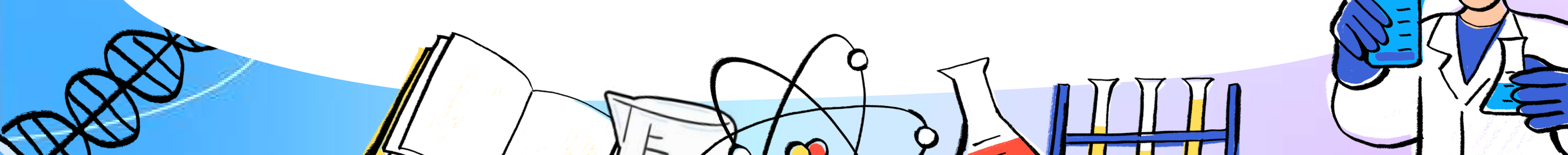
$$n = \frac{N}{1 + Ne^2}$$

Where

n = Sample size

N = Population size

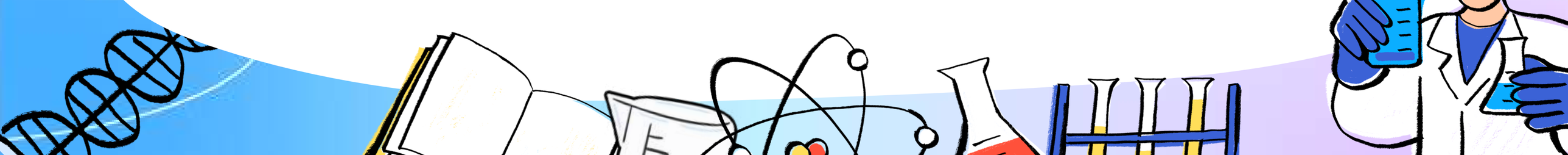
e = Sampling error, set at 0.05 (for a 95% confidence level)



Step 3: Data Collection

Determining Sample Size:

2. Determining Sample Size via Prepared Tables: This is a highly popular method due to its convenience and speed. Researchers simply identify the population size of the study and determine the maximum acceptable margin of error at a significance level of 0.01 or 0.05. Then, they refer to the values provided in the table to find the required sample size. The most commonly used prepared tables include those by Krejcie & Morgan (1970) and Yamane (1967).



Step 3: Data Collection

Determining Sample Size:

Example: The Krejcie & Morgan (1970) Table

ตารางแสดงขนาดของกลุ่มตัวอย่างของเครจซี่และมอร์แกน

ขนาดของประชากร	ขนาดของกลุ่มตัวอย่าง	ขนาดของประชากร	ขนาดของกลุ่มตัวอย่าง	ขนาดของประชากร	ขนาดของกลุ่มตัวอย่าง
10	10	220	140	1,200	291
15	14	230	144	1,300	297
20	19	240	148	1,400	302
25	24	250	152	1,500	306

Step 3: Data Collection

Determining Sample Size:

Example: The Yamane (1967) Table

ขนาดประชากร (N)	ขนาดกลุ่มตัวอย่าง ในแต่ละระดับความคลาดเคลื่อน (e)					
	±1%	±2%	±3%	±4%	±5%	±10%
500					222	83
1,000				385	286	91
1,500			638	441	316	94
2,000			714	476	333	95
2,500		1,250	769	500	345	96
3,000		1,364	811	517	353	97
3,500		1,458	843	530	359	97

Step 3: Data Collection

Sampling Selection:

Sampling selection for research can be classified into two main types: Probability Sampling and Non-probability Sampling.

1. Probability Sampling: This method is based on the principle that every unit in the population has an equal and known chance of being selected as a representative. This sampling approach can be further categorized into five methods:

Step 3: Data Collection

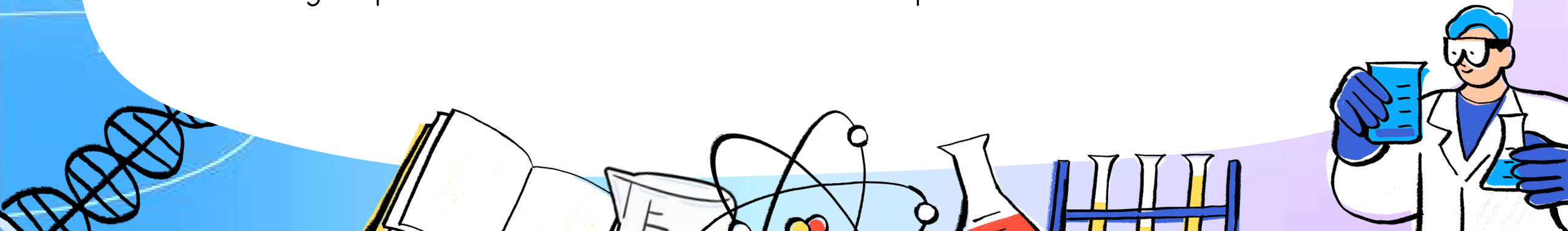
Sampling Selection:

1. Probability Sampling:
   - Simple Random Sampling: This involves selecting samples without any additional conditions or special methods. Examples include drawing lots, using a random number table, or utilizing computer software for random generation.
   - Systematic Random Sampling: This is a method where a sample is selected at fixed, predetermined intervals until the desired sample size is reached. For example, selecting every 10th household to be part of the study sample.

Step 3: Data Collection

Sampling Selection:

1. Probability Sampling:
    - Stratified Random Sampling: This involves dividing the population into subgroups (strata) based on shared characteristics, such as gender, academic year, or district of residence. Afterward, a simple random sample or systematic sample is taken from each group to obtain the desired total sample.

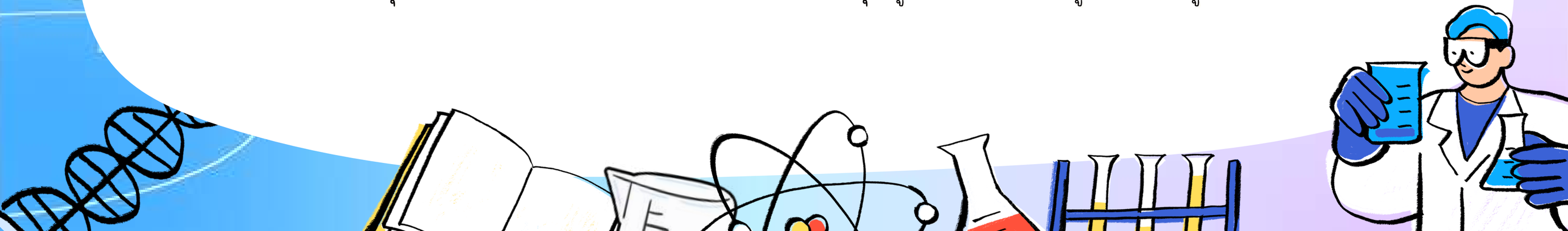


Step 3: Data Collection

Sampling Selection:

1.Probability Sampling:

- **การสุ่มตัวอย่างแบบแบ่งกลุ่ม (cluster random sampling):** เหมาะสำหรับประชากรขนาดใหญ่ที่ไม่คุ้มค่าต่อการสุ่มแบบง่ายหรือแบบเป็นระบบ โดย**แบ่งประชากรออกเป็นกลุ่มย่อยตามเกณฑ์อย่างใดอย่างหนึ่ง แล้วสุ่มเลือกเฉพาะบางกลุ่มมาเป็นตัวแทนในการเก็บข้อมูล** สมาชิกทุกคนที่อยู่ในกลุ่มที่ถูกสุ่มเลือกจะถือเป็นกลุ่มตัวอย่างทั้งหมด เช่น การแบ่งและสุ่มผู้บริโภคตามหมู่บ้านที่อยู่อาศัย



Step 3: Data Collection

Sampling Selection:

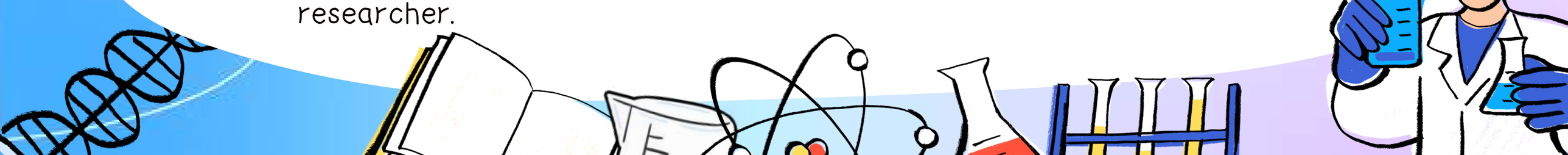
1. Probability Sampling:

- Multi-stage Random Sampling: This method involves conducting random sampling more than once to obtain a sample that is appropriate in both characteristics and size for the research. For example:
  - First stage: Randomly select which provinces to collect data from within each region.
  - Second stage: Randomly select which districts to collect data from within the previously selected provinces.
  - Third stage: Randomly select which villages to collect data from within the selected districts.

Step 3: Data Collection

Sampling Selection:

2. Non-probability Sampling: This is a sampling method that does not ensure every unit has an equal chance of being selected. Instead, it prioritizes convenience, budget, and the researcher's data collection time. This approach includes the following methods:
    - Convenience Sampling: This is a sampling method based primarily on the researcher's convenience. For example, selecting individuals who are walking on the street and are willing to provide information to the researcher.

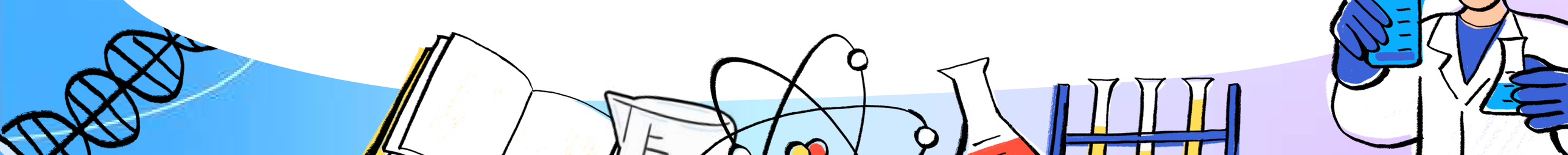


Step 3: Data Collection

Sampling Selection:

2.Non-probability Sampling:

- Purposive Sampling (or Judgment Sampling): This is a method of selecting samples based on the specific objectives or criteria set by the researcher. For example, specifying that the sample must only include individuals who have used brand “XXX“ for at least 6 months.
- Quota Sampling: This involves selecting samples by determining the specific number of participants required from each subgroup. For example, setting a requirement to collect data from 100 male and 100 female consumers.

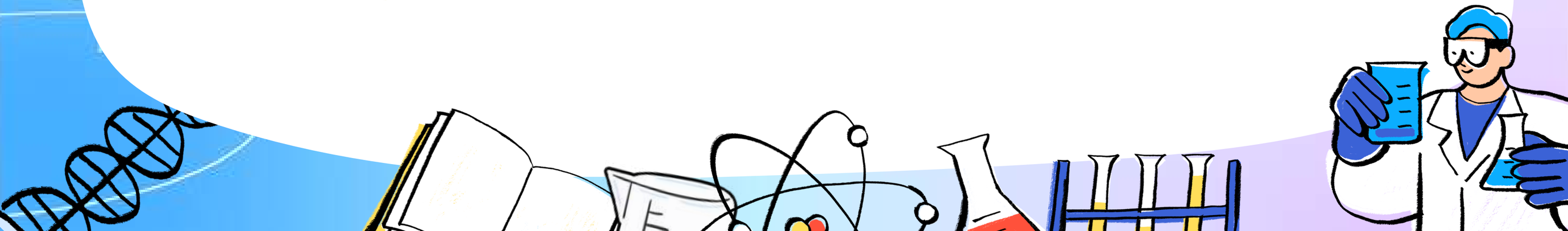


Step 3: Data Collection

Sampling Selection:

2.Non-probability Sampling:

- Snowball Sampling (or Chain Sampling): This involves starting data collection with a small group of initial samples and then asking those participants to recommend or refer other individuals who meet the criteria to serve as subsequent samples for the research.



Step 4: Data Analysis

After the data has been collected, the researcher must analyze it to interpret the findings and draw conclusions. In quantitative research, statistical methods are applied based on the scales of measurement used during data collection. Conversely, qualitative research generally does not rely on statistics but uses theories as a framework for inductive interpretation to identify key themes or utilizes content analysis. Currently, computer software such as Ethnograph can assist in content analysis, making word classification and the discovery of findings more convenient and systematic.

Step 4: Data Analysis

Using Tables and Graphs for Data Presentation:

The use of tables and graphs is essential for presenting analysis results effectively. They help simplify complex data, making it easier for readers to understand patterns, trends, and comparisons at a glance. Key guidelines include:

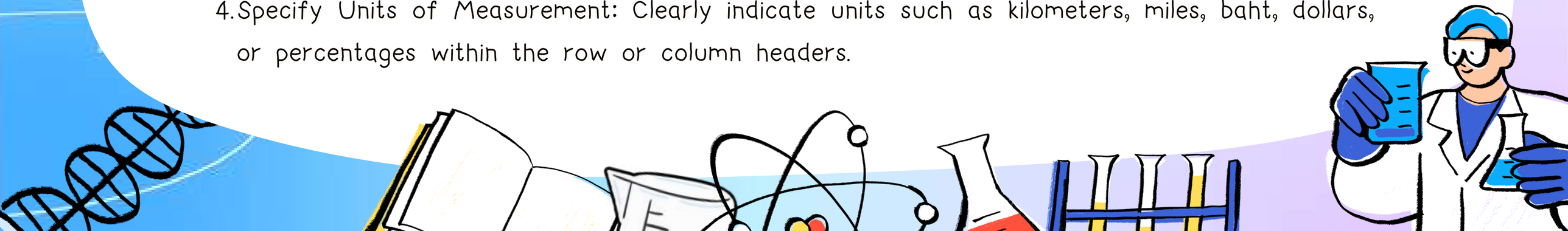
1. Enhance Reader Understanding: The inclusion of tables and graphs allows readers to better comprehend the accompanying explanations and narratives.
2. Highlight Key Findings: Tables and graphs play a crucial role in emphasizing the most important points of a research report, such as visualizing comparisons, identifying significant differences, or illustrating future trends.
3. Organize Quantitative Data: Tables and graphs assist in organizing quantitative data systematically, making it more convenient and accessible for readers to interpret.

Step 4: Data Analysis

Table Construction:

Tables are an organized format of data arranged in horizontal rows and vertical columns. When creating and using tables in a research report, the following principles should be followed:

1. Simplicity and Clarity: Design tables to be easy to read and clear in their presentation.
2. Proximity to Text: Place tables as close as possible to their corresponding descriptions to allow for convenient referencing by the reader.
3. Systematic Organization: Arrange rows and columns in an orderly and logical manner.
4. Specify Units of Measurement: Clearly indicate units such as kilometers, miles, baht, dollars, or percentages within the row or column headers.



Step 4: Data Analysis

Graphs and Charts:

Graphs refer to visual representations used to display statistical data. The most commonly used types are line graphs, bar charts, and pie charts.

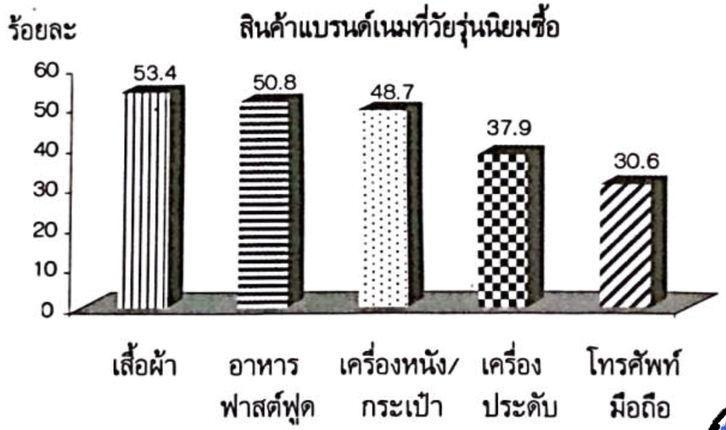
1.Line Graphs: These are used to illustrate the relationship between independent and dependent variables, showing how one value changes in response to another.

Step 4: Data Analysis

Graphs and Charts:

2.Bar Charts: These are graphs represented by rectangular bars of equal width, which can be arranged either vertically or horizontally. Bar charts are typically used to illustrate the following:

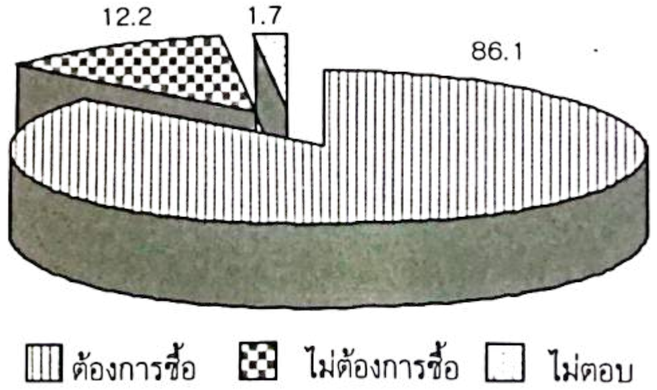
- Showing different items at the same point in time
- Showing the same item at different points in time
- Showing different items at different points in time



Step 4: Data Analysis

Graphs and Charts:

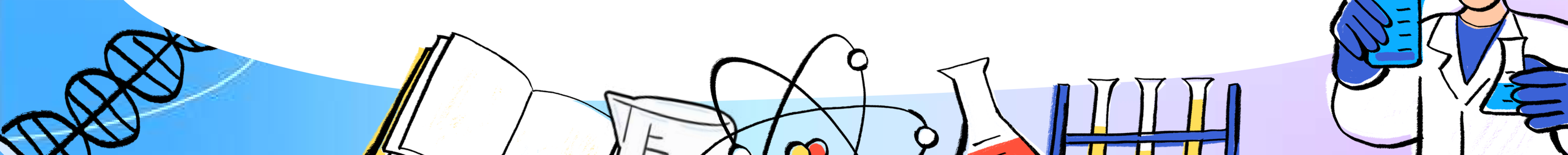
3.Pie Charts: This type of graph is circular, divided into segments where each segment's size varies according to its percentage value. Consequently, pie charts are particularly useful for illustrating the percentage distribution of the subjects being studied.



Step 5: Research Conclusion

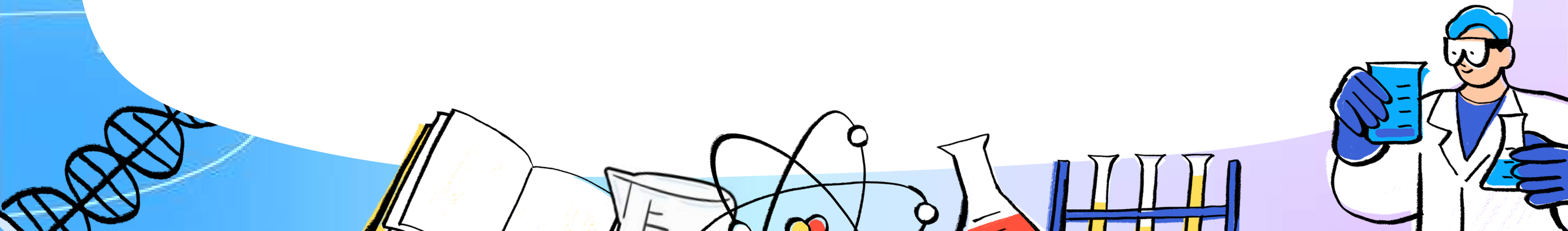
This is the stage where the researcher summarizes the findings by synthesizing the interpreted data analysis into specific points to answer the research questions. The research conclusion should be conducted according to the following guidelines:

1. Align with objectives and hypotheses.
2. Stay within the scope of data.
3. Use clear and concise declarative sentences.
4. Maintain objectivity.



Step 5: Research Conclusion

Generally, the research conclusion covers a wide range of topics, including the research objectives, conceptual framework and hypotheses, population and sample, data collection instruments, data analysis, research findings, discussion of the results, research limitations, as well as recommendations for practical application and future research.



Q & A

Thank You