6.1 Introduction to Survey Design

A survey is a systematic method of collecting information from individuals to gain insights into opinions, behaviors, or characteristics. Surveys are essential in fields such as market research, social sciences, healthcare, and customer feedback analysis. A well-designed survey is crucial for ensuring the reliability, validity, and usefulness of the collected data.

Principles of Good Survey Design

1. **Clear Objectives**
   - Define the purpose of your survey and the specific data you aim to collect.
2. **Know Your Audience**
   - Understand the demographic and cultural context of your respondents to ensure relevance and clarity.
3. **Question Clarity**
   - Use simple, unambiguous language.
   - Avoid leading or double-barreled questions that may confuse respondents or bias their answers.
4. **Survey Length**
   - Keep it concise to maintain engagement while ensuring comprehensive data collection.

Types of Surveys

Surveys can be categorized based on their method, purpose, or frequency:

A. By Data Collection Method

1. **Online Surveys**
   - Distributed via email, social media, or platforms like Google Forms.
   - **Advantages**: Cost-effective, scalable, and fast.
2. **Paper Surveys**
   - Suitable for populations with limited internet access.
   - **Use Case**: Rural or underconnected regions.
3. **Telephone Surveys**
   - Effective for quick responses but prone to low response rates.
4. **Face-to-Face Interviews**
   - Provide in-depth insights but are time-intensive and costly.

B. By Purpose

1. **Descriptive Surveys**
   - Describe characteristics or opinions of a population.
   - **Example**: Customer satisfaction surveys.
2. **Analytical Surveys**
   - Explore relationships between variables.
   - **Example**: Surveys linking exercise habits to mental health.
3. **Exploratory Surveys**
   - Generate ideas or gather initial insights.
   - **Example**: Brainstorming new product features.

C. By Frequency

1. **Cross-sectional Surveys**
   - Conducted at a single point in time to capture a snapshot of opinions or behaviors.
   - **Example**: Dietary habits survey among college students during one semester.
   - **Purpose**: Understand behaviors at a specific time.
2. **Longitudinal Surveys**
   - Repeatedly conducted over time to track changes or trends.
   - **Example**: Annual health studies tracking exercise habits.
   - **Purpose**: Capture trends and behavioral evolution.

Types of Questions

1. **Open-ended Questions**
   - Allow respondents to answer in their own words, providing detailed insights.
2. **Closed-ended Questions**
   - Include multiple-choice, yes/no, or ranking formats.
3. **Rating Scales**
   - Commonly use Likert scales (e.g., strongly agree to strongly disagree).

Sampling Methods

Probability Sampling Methods

1. **Simple Random Sampling (SRS)**
   - **Description**: Every individual has an equal chance of being selected.
   - **Purpose**: To obtain an unbiased sample when the population is homogeneous, or when there is a list of all members.
   - **Examples**:
     - **Example 1**: A university selects 100 students from its 5,000 students to evaluate library services. Each student is randomly selected using a random number generator, ensuring an unbiased representation of the student body with equal chances for everyone to be included.

- **Example 2**: A company selects 50 customers from its database of 10,000 for a survey about product satisfaction. The random selection ensures the sample represents the entire customer base fairly without favoring any specific group.

2. **Systematic Sampling**
   - **Description**: Every nth individual is selected from a list after choosing a random starting point. The interval (k) is determined by dividing the population size by the desired sample size.
   - **Purpose**: To simplify the sampling process when the population list is ordered and random sampling is not feasible.
   - **Examples**:
     - **Example 1**: A university surveys students about campus facilities by selecting every 20th student from an alphabetical list of enrolled students, starting at the 5th student. This method simplifies the selection process while maintaining objectivity, as it ensures coverage across the list.
     - **Example 2**: An HR team surveys employees about job satisfaction by selecting every 10th employee from the payroll database, starting at the 7th employee. By following a systematic approach, the sample is distributed evenly across the workforce.

3. **Stratified Sampling**
   - **Description**: The population is divided into mutually exclusive subgroups (strata), and a random sample is taken from each stratum.
   - **Purpose**: To ensure that specific subgroups are proportionally represented, especially when the population is heterogeneous.
   - **Examples**:
     - **Example 1**: Students are divided into strata based on their year of study (freshman, sophomore, junior, senior). A random sample of 50 students is taken from each group to ensure the survey reflects the opinions of all academic levels proportionally.
     - **Example 2**: A company surveys employees by dividing them into job roles (managers, developers, sales representatives) and randomly selects employees from each role. This ensures feedback from every job category, representing the diversity of roles within the organization.

4. **Cluster Sampling**
   - **Description**: The population is divided into clusters (often based on geography or other natural groupings), and a random sample of clusters is selected.
   - **Purpose**: To reduce costs and logistical challenges when the population is large and dispersed over a wide area, making individual selection impractical.
   - **Examples**:
     - **Example 1**: A university wants to evaluate dormitory services. It randomly selects 3 dorm buildings (clusters) and surveys all students living in those buildings, saving time and effort by focusing on specific, representative clusters rather than the entire campus.
     - **Example 2**: A retail chain randomly selects 5 store locations (clusters) and surveys all employees working in those stores. This approach reduces logistical challenges while still capturing data from diverse locations.

5. **Multistage Sampling**
   - **Description**: Combines various sampling techniques. For example, it may involve cluster sampling at the first stage, followed by simple random or stratified sampling in subsequent stages.

- **Purpose**: To handle large and geographically dispersed populations by breaking down the sampling process into manageable stages.
- **Examples**:
  - **Example 1**: A university with multiple campuses selects 2 campuses (clusters) randomly, then randomly selects 3 departments from each campus, and finally surveys students from those departments. This layered approach ensures both cost efficiency and representative data.
  - **Example 2**: A multinational company selects 5 countries (clusters), then randomly selects 2 regional offices in each country, and finally surveys employees in those offices. This method balances practicality and accurate representation across global operations.

6. **Proportional vs. Equal Allocation in Stratified Sampling**
   - **Description**:
     - **Proportional Allocation**: The sample size from each stratum is proportional to the stratum's size in the population.
     - **Equal Allocation**: The same sample size is taken from each stratum, regardless of its size in the population.
   - **Purpose**: To ensure accurate or balanced subgroup representation based on the survey objectives.
   - **Examples**:
     - **Proportional Allocation**:
       - **Example 1**: A university surveys students from three faculties (Arts, Engineering, and Medicine) where Arts has 50%, Engineering 30%, and Medicine 20% of students. The sample sizes are proportionally allocated to ensure the survey reflects the actual distribution of students.
       - **Example 2**: A company surveys customers from three regions (North, South, West), ensuring the sample reflects the percentage of customers in each region to accurately gauge regional satisfaction levels.
     - **Equal Allocation**:
       - **Example 1**: A university collects equal numbers of survey responses from students in three different faculties, regardless of their actual size, to ensure each faculty's perspectives are equally prioritized.
       - **Example 2**: A company surveys 50 employees from each job department, even if some departments are larger than others, to equally emphasize the experiences of all departments.

Non-Probability Sampling Methods

1. **Convenience Sampling**
   - **Description**: Participants are selected based on their availability or ease of access.
   - **Examples**:
     - **Example 1**: A researcher surveys students passing by a university library about their study habits, as these students are easy to access and engage on the spot.
     - **Example 2**: A business surveys customers visiting its flagship store about their shopping experience, as these customers are readily available and willing to provide feedback.
2. **Snowball Sampling**
   - **Description**: A technique where participants are recruited through referrals from initial subjects, often used in hard-to-reach populations.

- **Examples**:
    - **Example 1**: A sociologist interviews one international student and asks them to refer other international students for a study on cultural adaptation, leveraging their networks to reach participants who may otherwise be difficult to contact.
    - **Example 2**: A consultant interviews one startup founder and uses their network to recruit other startup founders for a study on entrepreneurship challenges, relying on personal connections within the community to access additional participants.

Common Survey Biases

1. Response Bias

Response bias occurs when respondents provide answers that they believe are socially desirable, expected, or acceptable rather than being truthful, leading to inaccurate data.

- Examples:
    1. Students report studying more hours per week than they actually do in a survey on academic habits.
    2. Participants understate how often they consume junk food in a nutrition study.
    3. Employees claim they are fully satisfied with their work environment, even if they have complaints, out of fear of repercussions.
    4. Parents exaggerate their involvement in their children's homework during a school feedback survey.
    5. Customers overstate their preference for sustainable products in a survey about shopping habits.

2. Selection Bias

Selection bias occurs when the sample does not adequately represent the target population, leading to skewed or non-generalizable results.

- Examples:
    1. A university survey about dorm satisfaction only includes students living in new dorms, excluding older dorm residents.
    2. A study on internet usage only samples urban residents, leaving out rural areas where internet access is less common.
    3. A company's employee engagement survey includes only full-time employees, ignoring part-time and contract workers.
    4. A political poll is conducted via landline phones, excluding younger populations who primarily use mobile phones.
    5. A fitness app survey targets premium users only, overlooking free users with potentially different habits.

3.Non-response Bias

Non-response bias happens when certain groups of the population do not participate in a survey, causing their perspectives to be underrepresented.

- Examples:
    1. A workplace satisfaction survey receives responses mostly from employees who are content, as dissatisfied employees avoid participating.
    2. A customer feedback survey sent via email has low responses from older adults who are less familiar with technology.
    3. A university professor's end-of-course survey is filled out primarily by students who enjoyed the class, ignoring those who disliked it.
    4. A healthcare study on exercise habits receives few responses from participants with sedentary lifestyles.
    5. A political candidate's survey conducted in person gets minimal participation from busy working-class individuals.

4. Acquiescence Bias

Acquiescence bias refers to the tendency of respondents to agree with statements, regardless of their true opinions or feelings.

- Examples:
    1. Respondents agree with statements in a customer satisfaction survey without reading the questions carefully.
    2. Students participating in a feedback form select "strongly agree" for all statements to finish the survey quickly.
    3. Employees agree with all statements in a workplace culture survey because they assume this is what management expects.
    4. Participants in a product feedback survey select positive responses due to the presence of the company's representative.
    5. Patients agree with statements about a treatment's effectiveness even if they have doubts, fearing it might reflect poorly on their healthcare provider.

5. Strategies to Minimize Biases

- Conduct pilot testing to identify and address potential biases before the main survey.
- Use clear and neutral instructions to avoid influencing responses.
- Offer incentives to encourage participation, reducing non-response bias.
- Randomize question order to minimize acquiescence bias.
- Ensure the sample is representative by carefully selecting participants to avoid selection bias.

Ethical Considerations

1. **Informed Consent**
    - Ensure participants understand the survey's purpose and data usage.
2. **Confidentiality**

  - Protect respondents' identities and sensitive information.
3. **Voluntary Participation**
  - Make it clear that participation is optional, and respondents may skip questions if desired.

Determining the Sample Size for Surveys

Here's a revised and structured explanation based on your input for determining the appropriate sample size:

Determining the Appropriate Sample Size

Choosing the right sample size is essential for designing a survey. It directly affects the accuracy and reliability of results. A sample that is too small risks failing to capture sufficient diversity and can lead to misleading conclusions, while an overly large sample can waste resources and be inefficient.

Key Factors in Sample Size Calculation

1. **Population Size (N)**
   - Represents the total number of individuals in the population under study. For large populations (e.g., millions), this factor has minimal impact. For smaller populations, it becomes more critical.
2. **Margin of Error (E)**
   - Defines the range within which the true population parameter is likely to fall, expressed as a percentage (e.g., ±5%). Smaller margins of error require larger sample sizes.
   - **Example**: A margin of error of ±5% indicates that the actual value in the population is likely within 5% of the sample estimate.
3. **Confidence Level (Z)**
   - Indicates the degree of certainty desired that the sample represents the population. Common levels are 90%, 95%, and 99%. Higher confidence levels require larger sample sizes.
   - **Z-values**:
     - 90% = 1.645
     - 95% = 1.96
     - 99% = 2.576
4. **Population Proportion (P)**
   - Refers to the expected proportion of the population with a specific characteristic. If unknown, 50% (0.5) is typically used to maximize variability and ensure the largest sample size.

Sample Size Formula for Proportions

For simple random sampling, the required sample size (n) is calculated using:

$$n = \frac{Z^2 \cdot P \cdot (1 - P)}{E^2}$$

Where:
- (Z): Z-value for the desired confidence level.
- (P): Population proportion (0.5 if unknown).
- (E): Margin of error.

Example: Sample Size for Proportions

Parameters:

- Population Size ((N)) = 10,000
- Confidence Level = 95% ((Z = 1.96))
- Estimated Proportion ((P)) = 50% (most conservative estimate)
- Margin of Error ((E)) = ±5% (0.05)

Calculation:

$$n = \frac{(1.96)^2 \cdot 0.5 \cdot (1 - 0.5)}{(0.05)^2}$$

1. Calculate the numerator:

$$1.96^2 \cdot 0.5 \cdot 0.5 = 3.8416 \cdot 0.25 = 0.9604$$

2. Calculate the denominator:

$$(0.05)^2 = 0.0025$$

3. Compute (n):

$$n = \frac{0.9604}{0.0025} = 384.16$$

Thus, the required sample size is approximately **384 participants**.

Sample Size Formula for a Mean

When estimating a population mean, the sample size can be calculated using:

$$n = \frac{Z^2 \cdot \sigma^2}{E^2}$$

Where:
- ( ): Population standard deviation (estimated from prior studies or pilot tests).
- (E): Margin of error.

Example: Sample Size for a Mean

Parameters:

- Confidence Level = 95% ((Z = 1.96))
- Standard Deviation (( )) = 5,000 JDs (estimated)
- Margin of Error ((E)) = ±500 JDs

Calculation:

1. Calculate the numerator:

$$Z^2 \cdot \sigma^2 = 1.96^2 \cdot 5000^2 = 3.8416 \cdot 25,000,000 = 96,040,000$$

2. Calculate the denominator:

$$E^2 = 500^2 = 250,000$$

3. Compute (n):

$$n = \frac{96,040,000}{250,000} = 384.16$$

The required sample size is approximately **384 participants**.

Finite Population Correction (FPC)

For small populations (less than 20,000), adjust the sample size using the FPC formula:

$$n_{\text{adj}} = \frac{n \cdot (N - n)}{N - 1}$$

Where:
- (n): Initial sample size.
- (N): Population size.

Practical Considerations

1. **Budget and Resources**: Larger samples improve precision but increase costs and time. Balance statistical precision with practical constraints.
2. **Sampling Method**: Adjust sample size if using stratified, cluster, or systematic sampling, as these methods can impact efficiency and precision.
3. **Pilot Studies**: Conduct small pilot surveys to refine estimates for parameters like ( ) or (P).

Sample Size for Different Confidence Levels and Margins of Error

Here's a quick reference for sample sizes with a margin of error of ±5%:

Confidence Level	Z-value	Required Sample Size
90%	1.645	271
95%	1.96	384
99%	2.576	664

Conclusion

Determining the appropriate sample size ensures reliable and accurate survey results while optimizing time and resources. Proper calculation considers the desired confidence level, margin of error, and population parameters, ensuring a balance between statistical validity and practicality.

Tools for Survey Creation

- **Google Forms**
- **Microsoft Forms**
- **Survey Monkey**
- **Quadratics**

Features:
- Customization templates, real-time analytics, and easy sharing.
———————————————————————————————— # Microsoft Forms

1. Choice

- **Description**: Offers multiple options for respondents to select from.
- **Features**:
  - Supports single or multiple selections.
  - Can include images or videos.
- **Use Cases**:
  - Polls or surveys (e.g., "What is your favorite color?")
  - Quiz questions with predefined answers.
  - Collecting feedback (e.g., "Select all features you use frequently.")

2. Text

- **Description**: Allows respondents to provide freeform text responses.
- **Features**:

- ○ Can be short answer (single line) or long answer (paragraph).
- **Use Cases**:
  - ○ Open-ended feedback (e.g., "What can we improve?")
  - ○ Collecting detailed opinions or explanations.
  - ○ Gathering short data (e.g., names, email addresses).

3. Rating

- **Description**: Collects feedback on a numerical or star-based scale.
- **Features**:
  - ○ Scale range: 1–10.
  - ○ Customizable labels for highest and lowest values.
- **Use Cases**:
  - ○ Measuring satisfaction (e.g., "Rate your experience from 1 to 5 stars.")
  - ○ Evaluating performance or preferences.
  - ○ Simple feedback on events or products.

4. Date

- **Description**: Captures date inputs.
- **Features**:
  - ○ Users select a specific date from a calendar picker.
- **Use Cases**:
  - ○ Scheduling appointments (e.g., "What date works best for you?")
  - ○ Tracking dates of events or occurrences.
  - ○ Collecting birthdates or deadlines.

5. Ranking

- **Description**: Lets respondents prioritize items by ranking them in order of preference.
- **Features**:
  - ○ Respondents drag and drop options to reorder.
- **Use Cases**:
  - ○ Prioritizing features (e.g., "Rank these features from most to least important.")
  - ○ Determining preferences for events or products.
  - ○ Assessing priorities in team projects.

6. Likert

- **Description**: Measures attitudes or opinions across a multi-point scale.
- **Features**:
  - ○ Customizable columns for agreement, frequency, or satisfaction scales.
- **Use Cases**:
  - ○ Surveying satisfaction (e.g., "How strongly do you agree with the following statements?")
  - ○ Assessing opinions on multiple topics simultaneously.
  - ○ Employee or customer engagement surveys.

7. Net Promoter Score (NPS)

- **Description**: Measures the likelihood of recommending a product or service.
- **Features**:
  - A scale from 0 (Not Likely) to 10 (Extremely Likely).
- **Use Cases**:
  - Tracking customer loyalty (e.g., "How likely are you to recommend us?")
  - Comparing satisfaction levels over time.
  - Benchmarking brand performance.

8. File Upload

- **Description**: Allows respondents to upload files as part of their response.
- **Features**:
  - File size and format restrictions can be set.
  - Files are stored in OneDrive.
- **Use Cases**:
  - Collecting resumes or portfolios (e.g., job applications).
  - Submitting project documents.
  - Gathering supporting evidence for reports or claims.

9. Choice with Dropdown

- **Description**: A dropdown list that provides a compact way for respondents to select an option.
- **Features**:
  - Works similarly to the choice question but appears as a dropdown menu.
- **Use Cases**:
  - Compact surveys with many options (e.g., "Select your department.")
  - Ensuring a clean interface for long lists.
  - Gathering data with predefined options (e.g., "Choose your country.")

10. Yes/No

- **Description**: Simplified choice question offering only two options.
- **Features**:
  - Default "Yes" or "No" labels.
- **Use Cases**:
  - Simple binary decisions (e.g., "Do you agree?")
  - Quick feedback (e.g., "Was this session helpful?")
  - Confirming participation (e.g., "Will you attend the event?").

11. Number

- **Description**: Collects numeric input from respondents.
- **Features**:
  - Allows only numbers, no text or special characters.
- **Use Cases**:

- Collecting ages, quantities, or scores (e.g., "How many years of experience do you have?")
- Budgeting or expense tracking surveys.
- Asking for ratings that require manual input.

12. Time

- **Description**: Collects specific time inputs (hours and minutes).
- **Features**:
  - 24-hour or AM/PM format.
- **Use Cases**:
  - Scheduling (e.g., "What time works best for your meeting?")
  - Collecting appointment slots.
  - Tracking time-based events.

Summary Table of Question Types and Use Cases:

Question Type	Use Case Examples
Choice	Polls, quizzes, feedback surveys.
Text	Open-ended feedback, collecting names or opinions.
Rating	Satisfaction surveys, product evaluations.
Date	Scheduling, tracking events.
Ranking	Prioritizing features, determining preferences.
Likert	Measuring attitudes or satisfaction across multiple items.
NPS	Measuring loyalty and likelihood of recommendation.
File Upload	Collecting resumes, project submissions, or evidence.
Dropdown Choice	Selecting from a long list of options.
Yes/No	Binary decisions or confirmations.
Number	Collecting ages, quantities, or numeric ratings.
Time	Scheduling meetings or collecting time-based data.

Each question type in Microsoft Forms is tailored to specific data collection needs, allowing you to build versatile surveys, quizzes, and forms effectively.

Difference Between **ranking**, **Net Promoter Score (NPS)**, and **Likert scale** question types

While **ranking**, **Net Promoter Score (NPS)**, and **Likert scale** question types all capture numerical or ordinal data, they serve distinct purposes and collect information differently. Here's a breakdown of each:

1. Ranking

- **Purpose**: Used to determine relative preferences or priorities among a set of options.
- **How It Works**: Respondents reorder or rank items in terms of importance, preference, or another criterion (e.g., 1 = most important, 5 = least important).
- **Key Feature**: Provides a **relative comparison** between options.
- **Data Type**: Ordinal; the result is a sequence (e.g., Item A > Item B > Item C), but the intervals between ranks are not meaningful.
- **Use Case**:
    - Prioritizing features in a product.
    - Ranking services by importance.

2. Net Promoter Score (NPS)

- **Purpose**: Measures customer loyalty or satisfaction.
- **How It Works**: Respondents rate their likelihood to recommend a product, service, or organization on a **0–10 scale**, where:
    - 0–6: Detractors
    - 7–8: Passives
    - 9–10: Promoters
- **Key Feature**: Focused on the likelihood to recommend, producing a **summary score** (%Promoters - %Detractors = NPS).
- **Data Type**: Interval; NPS assumes equal spacing between numbers for aggregate calculation.
- **Use Case**:
    - Customer feedback.
    - Tracking satisfaction trends over time.

3. Likert Scale

- **Purpose**: Measures attitudes, opinions, or behaviors across a scale.
- **How It Works**: Respondents select from a set of **ordered options** (e.g., Strongly Agree to Strongly Disagree).
- **Key Feature**: Evaluates **intensity or frequency** of agreement, satisfaction, or sentiment.
- **Data Type**:
    - Ordinal: When analyzing individual responses.
    - Interval: When assuming equal distances between options for aggregate analysis (e.g., mean scores).
- **Use Case**:
    - Assessing opinions on a new policy.
    - Evaluating user satisfaction.

Key Differences

Feature	Ranking	NPS	Likert Scale
Focus	Relative importance/order	Recommendation likelihood	Agreement/intensity level
Response Format	Reordering items	Numerical scale (0–10)	Ordered categories
Data Interpretation	Ordinal (order matters)	Interval (summary score)	Ordinal or interval
Common Use	Prioritization tasks	Customer satisfaction	Surveying opinions/attitudes

Summary

- **Ranking** gives **relative** priorities.
- **NPS** captures a **summary score** for loyalty or satisfaction.
- **Likert scales** measure attitudes on a **range of agreement** or intensity.

Each method is tailored for specific types of insights, despite the numerical or scale-based formats.

Design a Sample Survey

Use Microsoft forms to design a survey that collects the following information and opinions .

Demographics

- Age
- Gender
- Current year of study
- Home distance from the University

Previous Education

- High School Degree (National Tawjihi, Internal)
- If Tawjihi, ask if Scientific or Non-Scientific.
- If International, Ask if SAT, IG, IB, Arabic Country
- High School Average

Academic Performance

- How many hours do you study in a week?
- What is your average daily sleep time?
- What was your score in MID exam?
- What is your current GPA?

Working while studying

- Ask if the student is working while he is studying
- If the student work, then ask the following questions:
    - Do you work full time or part time?
    - Are a business owner or employee?

Statisfaction

- How satisfied are you about your experience at the University of Petra? (Use a Likert Score)
- How satisfied are you about Business Intelligence Major? (Use a Likert Score)
- Will you recommend University of Petra to your colleagues? (Use Net Promoter Score)
- Will you recommend studying Business Intelligence at the University of Petra to your colleagues? (Use Net Promoter Score)
- Rank your top concerns about university life (e.g., tuition, faculty support, facilities, transportation, securing a job, quality of education).

Here's a table listing each question, the appropriate question type in Microsoft Forms, and the reason for using that type:

Question	Microsoft Forms Question Type	Reason for Using This Question Type
Demographics		
Age	Text (Short Answer)	Allows respondents to input their exact age for precise data collection.
Gender	Choice	Provides predefined options for efficient and structured data analysis.
Current year of study	Choice (Dropdown)	Offers a compact format for selecting from a fixed list of years.
Home distance from the University	Text (Short Answer)	Allows precise numerical or descriptive input about distance.
Previous Education	Choice	Predefined options for structured responses and easier categorization.
High School Degree (National Tawjihi, International)	Choice	Ensures structured responses with predefined categories for better analysis.
If Tawjihi, ask if Scientific or Non-Scientific.	Choice	Simplifies follow-up question with predefined options.
If International, Ask if SAT, IG, IB, Arabic Country	Choice (Dropdown)	Compact format for selecting from a fixed list of international education types.

Question	Microsoft Forms Question Type	Reason for Using This Question Type
High School Average	Text (Short Answer)	Allows respondents to input specific numerical averages.
Academic Performance		
How many hours do you study in a week?	Text (Short Answer)	Enables respondents to provide specific numerical answers for analysis.
What is your average daily sleep time?	Text (Short Answer)	Allows precise input of numerical data, making it suitable for quantitative analysis.
What was your score in MID exam?	Text (Short Answer)	Allows specific numeric responses, making the data easier to analyze.
What is your current GPA?	Text (Short Answer)	Enables respondents to input exact GPA values.
Working While Studying		
Ask if the student is working while he is studying	Yes/No	Simplifies the question to a binary answer for clarity and directness.
If the student works, then ask the following questions:		
Do you work full time or part time?	Choice	Provides predefined categories to ensure consistency in responses.
Are you a business owner or employee?	Choice	Structured options to simplify analysis of work type.
Student Satisfaction		
How satisfied are you about your experience at the University of Petra?	Likert	Captures degrees of satisfaction, providing nuanced feedback.
How satisfied are you about the Business Intelligence Major?	Likert	Measures specific satisfaction levels using a scale for detailed insights.
Will you recommend the University of Petra to your colleagues?	Net Promoter Score (NPS)	Evaluates likelihood of recommendation, a standard metric for gauging loyalty or satisfaction.

Question	Microsoft Forms Question Type	Reason for Using This Question Type
Will you recommend studying Business Intelligence at the University of Petra?	Net Promoter Score (NPS)	Assesses advocacy for the major, providing actionable insights.
Rank your top concerns about university life (e.g., tuition, faculty support, facilities, transportation).	Ranking	Allows students to prioritize their concerns in order of importance, providing insights into priorities.

This table aligns each question with the best-suited Microsoft Forms question type to ensure efficient data collection and analysis.