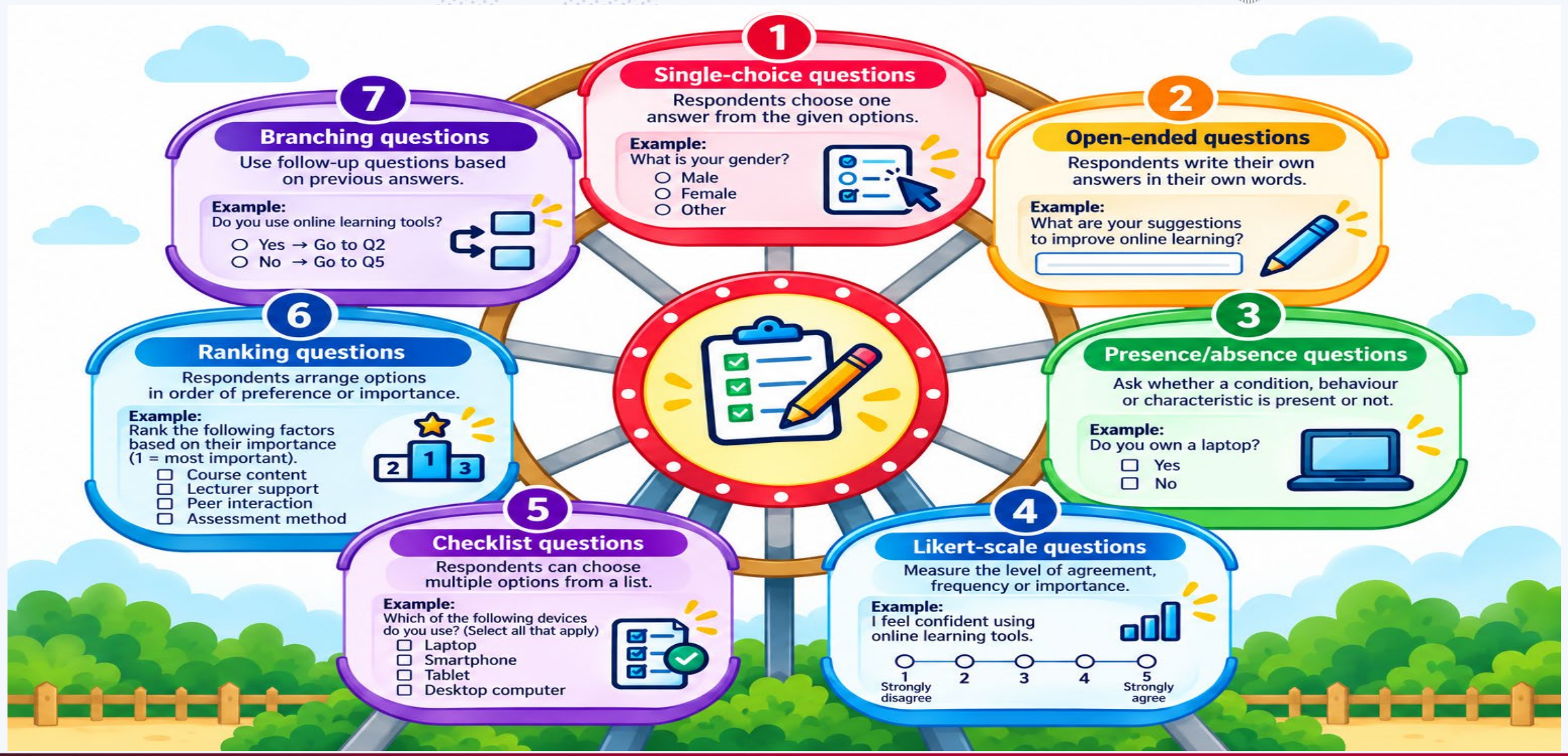
QUESTIONNAIRE DISTRIBUTION AND RESPONSES



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TYPES OF QUESTIONNAIRE ITEMS



1 SINGLE-CHOICE QUESTIONS

1 What is it?

This type of question requires respondents to **select one answer from a list of options.**



2 When to use?

These questions are commonly used in **demographic sections** to obtain personal information.



- age group
- gender
- education level
- occupation
- etc.

3 Key features

- Only one answer can be selected.
- Options are clearly listed.
- Easy for respondents to answer.
- Simple to analyse.
- Suitable for collecting factual or demographic information.



4 Examples of Single-Choice Questions

1 Age group (Demographic)

Q1. What is your age group?

- ○ Below 18 years old
- ◉ 18 – 34 years old
- ○ 35 – 49 years old
- ○ 50 – 70 years old
- ○ Above 70 years old



Used in demographic section

2 Gender (Demographic)

Q2. What is your gender?

- ◉ Female
- ○ Male



3 Job satisfaction (Attitude/Opinion)

Q3. Are you satisfied with your job?

- ◉ Yes
- ○ No



Example from an original questionnaire

No.	Item	Response options
D1	What is your age group?	○ Below 18 years old ○ 18–34 years old ○ 35–49 years old ○ 50–70 years old ○ Above 70 years old
D2	What is your gender?	○ Female ○ Male
A1	Are you satisfied with your job?	○ Yes ○ No

2 OPEN-ENDED QUESTIONS

1 What is it?

Open-ended questions do not provide predetermined response options.

Respondents may **answer freely** based on their understanding and experiences.



2 Key features

- No fixed response options.
- Allow respondents to express their own thoughts.
- Provide detailed and in-depth information.
- Useful for exploring new ideas or issues.
- Questions are usually short and clear.

3 Advantages



Obtain richer qualitative information.



Capture detailed explanations.



Identify unexpected perspectives.

4 Examples of Open-Ended Questions

1 Perspective (Opinion)

Q1. What is the most important thing to teach children to prepare them for life?

2 Personal Experience

Q2. Please describe an occasion when you experienced age discrimination.

3 Additional Comments

Q3. Is there anything else you would like to share?

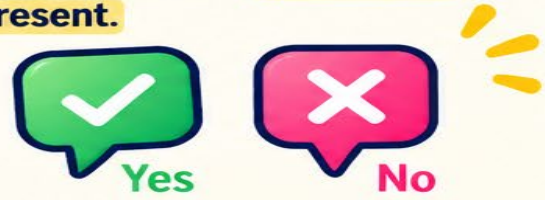
Example from an original questionnaire

No.	Item	Response format
Q1	What is the most important thing to teach children to prepare them for life?	Open-ended (write your answer)
Q2	Please describe an occasion when you experienced age discrimination.	Open-ended (write your answer)
Q3	Is there anything else you would like to share?	Open-ended (write your answer)

3 PRESENCE AND ABSENCE QUESTIONS

1 What is it?

Presence and absence questions ask whether a particular condition, behaviour or item is **present or not present.**



2 When to use?

Used to collect factual information about the existence or ownership of something.

Commonly used to ask about:

- Ownership of devices or facilities
- Access to resources
- Participation in programmes
- Membership
- Experience (Yes/No)

3 Key features

- Two response options (Yes/No).
- Simple and easy to answer.
- Suitable for collecting factual information.
- Often used in demographic or background sections.
- Can be presented as multiple items in a list.



4 Examples of Presence and Absence Questions

1 Ownership of Devices

Q1. Adakah anda memiliki peranti berikut?
Do you own the following gadget?

a.	Telefon Pintar *Smartphone*	◯ Ya / Yes	◯ Tidak / No
b.	Komputer riba sendiri *Own notebook*	◯ Ya / Yes	◯ Tidak / No
c.	Tablet	◯ Ya / Yes	◯ Tidak / No

2 Participation

Q2. Adakah anda pernah mengikuti kursus keselamatan siber?
Have you ever attended a cybersecurity course?

◯ Ya / Yes
◯ Tidak / No



3 Experience

Q3. Adakah anda mempunyai pengalaman menggunakan perisian statistik?
Do you have experience using statistical software?

◯ Ya / Yes
◯ Tidak / No



Example from an original questionnaire

No.	Item	Response options	
D1	Adakah anda memiliki telefon pintar? *Do you own a smartphone?*	◯ Ya / Yes	◯ Tidak / No
D2	Adakah anda memiliki komputer riba sendiri? *Do you own a notebook computer?*	◯ Ya / Yes	◯ Tidak / No
D3	Adakah anda memiliki tablet? *Do you own a tablet?*	◯ Ya / Yes	◯ Tidak / No

4 LIKERT SCALE QUESTIONS

1 What is it?

A Likert scale question asks respondents to indicate their **level of agreement, frequency, importance or perception** on a statement.



2 Commonly used to measure:

- **Attitudes** (e.g. positive or negative feelings)
- **Perceptions** (e.g. views or beliefs)
- **Opinions** (e.g. personal viewpoint)
- **Levels of agreement** (e.g. how strongly they agree with a statement)

3 Typical response categories:

1. Strongly Disagree (SD)
2. Disagree (D)
3. Neutral (N)
4. Agree (A)
5. Strongly Agree (SA)

4 Key features

- Ordered response scale.
- Measures the intensity or frequency of a behaviour, attitude or opinion.
- Easy for respondents to answer.
- Suitable for both positive and negative statements.
- Produces quantitative data that can be analysed statistically.



5 Examples of Likert Scale Questions

A Example using agreement scale

No.	Item (Statement)	Response options				
		Strongly Disagree (SD)	Disagree (D)	Neutral (N)	Agree (A)	Strongly Agree (SA)
Q1	I am confident in my ability to solve mathematical problems.	○	○	○	○	○
Q2	I have a positive attitude towards learning cybersecurity.	○	○	○	○	○
Q3	Using online learning tools helps me understand course content better.	○	○	○	○	○

B Example using frequency scale

No.	Item (Statement)	Response options				
		Never (1)	Rarely (2)	Sometimes (3)	Often (4)	Always (5)
Q1	I search for information about cybersecurity topics.	○	○	○	○	○
Q2	I use a password to protect my online accounts.	○	○	○	○	○
Q3	I update the software on my devices.	○	○	○	○	○

5 CHECKLIST-TYPE QUESTIONS

1 What is it?

Checklist questions allow respondents to select **multiple applicable options** from a list.



2 When to use?

- When a question has **several possible answers** that may all apply.
- To identify a **range of characteristics, behaviours,** or preferences.
- Useful when you want to understand the **breadth of responses** rather than a single choice.
- Commonly used in sections on **experience, resources, interests, or challenges.**

3 Key features

- Allows selection of multiple options.
- Options are clearly listed.
- Suitable for questions with more than one correct or relevant answer.
- Helps identify patterns and common characteristics across respondents.
- Easy to analyse using frequency or percentage.



4 Common areas of use

- Devices or facilities owned/used
- Skills or experiences
- Sources of information or learning materials
- Challenges or needs

5 Examples of Checklist-Type Questions

A Devices/facilities owned

Q1. Adakah anda memiliki peranti berikut?
Do you own the following gadget?
(Please tick all that apply)

- ☐ Telefon Pintar / *Smartphone*
- ☐ Komputer riba sendiri / *Own notebook*
- ☐ Tablet
- ☐ Komputer meja / *Desktop computer*
- ☐ Jam pintar / *Smartwatch*
- ☐ Lain-lain (nyatakan) / *Others (please specify):* _____



B Sources of information

Q2. Apakah sumber yang anda gunakan untuk mendapatkan maklumat tentang keselamatan siber?
Which sources do you use to obtain information about cybersecurity?
(Please tick all that apply)

- ☐ Pendidikan formal (kursus/kelas) / *Formal education (courses/classes)*
- ☐ Media sosial / *Social media*
- ☐ Laman web rasmi / *Official websites*
- ☐ Rakan-rakan / *Friends*
- ☐ Keluarga / *Family*
- ☐ Video dalam talian / *Online videos*
- ☐ Lain-lain (nyatakan) / *Others (please specify):* _____



C Skills or experience

Q3. Topik keselamatan siber berikut yang pernah anda pelajari atau alami. (Sila tandakan semua yang berkenaan)
Which of the following cybersecurity topics have you learned or experienced? (Please tick all that apply)

- ☐ Keselamatan kata laluan / *Password security*
- ☐ Perlindungan data peribadi / *Personal data protection*
- ☐ Penipuan dalam talian / *Online fraud*
- ☐ Perisian hasad (malware) / *Malware*
- ☐ Keselamatan rangkaian / *Network security*
- ☐ Media sosial / *Social media security*
- ☐ Lain-lain (nyatakan) / *Others (please specify):* _____



6 RANKING QUESTIONS

1 What is it?

Ranking questions require respondents to arrange items according to **priority, preference, or importance.**



2 When to use?

- When you want to know which items are **most or least preferred.**
- To **prioritise options,** features, or factors.
- Useful for comparing the **relative importance** of several items.
- Commonly used in research on **needs, priorities, preferences, or decision-making.**

3 Key features

- Respondents rank items (e.g. 1st, 2nd, 3rd, ...).
- Each item is given a unique rank.
- Show the order of preference or importance.
- Suitable when the list of items is short to moderate in length.
- Can be analysed to identify the most and least important items.



4 Common areas of use

- **Education** (e.g. preferred learning methods)
- **Technology** (e.g. most important security features)
- **Programme planning** (e.g. priority training topics)
- **Consumer or user preferences** (e.g. product features)

5 Examples of Ranking Questions

A Example 1: Ranking by Importance

Q1. **Sila susun faktor berikut mengikut tahap kepentingan dalam meningkatkan kesedaran keselamatan siber.**
Please rank the following factors according to their importance in increasing cybersecurity awareness.

- ☐ Pendidikan dan latihan / *Education and training*
- ☐ Kempen kesedaran / *Awareness campaigns*
- ☐ Peranan universiti / *Role of university*
- ☐ Sokongan rakan sebaya / *Peer support*
- ☐ Penguatkuasaan undang-undang / *Enforcement of policies*
- ☐ Lain-lain (nyatakan) / *Others (please specify):* _____



B Example 2: Ranking by Preference

Q2. **Sila susun kaedah pembelajaran berikut mengikut pilihan anda (1 = paling digemari, 5 = paling tidak digemari).**
Please rank the following learning methods according to your preference (1 = most preferred, 5 = least preferred).

- ☐ Kuliah bersemuka / *Face-to-face lecture*
- ☐ Pembelajaran atas talian / *Online learning*
- ☐ Pembelajaran berasaskan projek / *Project-based learning*
- ☐ Perbincangan kumpulan / *Group discussion*
- ☐ Video pembelajaran / *Learning videos*



7 BRANCHING QUESTIONS

Key features

- Uses respondents' previous answers as conditions to determine the next question.
- Directs respondents to different sections or skips irrelevant questions.
- Helps keep the questionnaire shorter, more focused and relevant for each respondent.
- Commonly used in both paper-based and online questionnaires.

When to use?

- When certain questions are only relevant to specific respondents.
- When you want to avoid asking unnecessary questions.
- To improve respondent experience and reduce survey fatigue.

Example 1: Using a follow-up question

Q9. Have you consumed any beer in the past seven days?

Yes ------ 1❒
No ------ 2❒

Question 9.1 is only shown to respondents who answered "Yes" in Question 9.

9.1 If Yes: How much did you consume in the past week?

3 pints or less ---- 1❒
4 to 9 pints ---- 2❒
10 or more pints -- 3❒

Example 2: Skipping to another section

Q10. Have you ever been married?

Yes ------ 1❒ [Answer questions 11–14]
No ------ 2❒ [Go to question 15]

If Yes, continue to questions 11–14 (marriage-related questions).

If **No**, skip to question 15.

Key takeaway

Branching questions ensure that each respondent **only answers questions that are relevant to them**, making the questionnaire more **efficient and user-friendly**.

Branching questions direct respondents to **different sections** based on their previous answers. This technique improves questionnaire **efficiency** and **relevance.**

Terminology Note

Different references may use **broader terms** to describe questionnaire item formats. These broader terms can **overlap with the seven types** of questionnaire items.

1 Multiple Choice Questions (a broader term)

The term **multiple choice** generally refers to questions with a list of predefined options. It can include:

- **Single-choice questions** (respondents select one answer)
- **Multiple-response questions** (respondents select more than one answer, e.g. checklist questions)
- **Yes/No questions** (a form of single-choice with two options)

OVERLAPS WITH

Related types from the seven formats:

1. **Single-Choice Questions**
5. **Checklist Questions** *(multiple responses)*
3. **Presence and Absence Questions (Yes/No)**

2 Rating Scale Questions (a broader term)

The term **rating scale** refers to questions where respondents indicate their response on a predefined scale. It can include:

- **Likert scale questions** (e.g. level of agreement)
- **Frequency scales** (e.g. always – never)
- **Importance scales** (e.g. not important – very important)
- **Satisfaction scales** (e.g. very dissatisfied – very satisfied)
- **Numerical rating scales** (e.g. 0–10, 1–5)

Example: Multiple Choice

Q1. Which device do you own?
(Please tick all that apply)

- ☐ Smartphone
- ☐ Laptop/Notebook
- ☐ Tablet
- ☐ Desktop computer



Example: Rating Scale

(a) Likert scale (agreement)

Q2. I have a positive attitude towards learning cybersecurity.

Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)
○	○	○	○	○

(b) Frequency scale

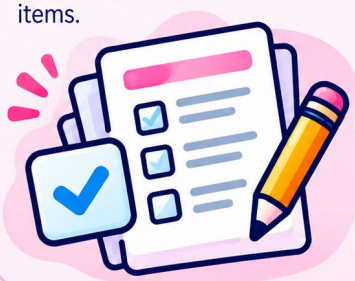
Q3. How often do you use online resources to learn about cybersecurity?

Never (1)	Rarely (2)	Sometimes (3)	Often (4)	Always (5)
○	○	○	○	○

KEY TAKEAWAY

1 Multiple Choice Questions and Rating Scale Questions are broader terms.

These terms refer to categories of questionnaire items that encompass **one or more** of the **seven types** of questionnaire items.



2 They overlap with the seven types of questionnaire items.

For example, **single-choice** questions are a form of **multiple choice**, and **Likert scale** questions are a form of **rating scale**.



MULTIPLE CHOICE AND RATING SCALE QUESTIONS

1 Multiple Choice Questions

Respondents choose one or more responses from predefined options.



Key features

- A list of possible answers is provided.
- Can be single-choice (select one answer) or multiple-response (select more than one answer).
- Easy for respondents to answer and easy to analyse.
- Useful for demographic questions or questions with clearly defined categories.

Tips for writing

- Ensure the options are clear, mutually exclusive (for single-choice) or clearly indicate multiple responses.
- Include an "Others (please specify)" option when appropriate.
- Keep the number of options reasonable (e.g. 4–7 options).
- Use simple and consistent wording across options.

Example from an instrument (single-choice)

Q1. Which device do you own? *(Please tick all that apply)*

- ☐ Smartphone
- ☐ Laptop/Notebook
- ☐ Tablet
- ☐ Desktop computer
- ☐ Smartwatch
- ☐ Others (please specify): _____



Example from an instrument (multiple-response)

Q2. Which of the following cybersecurity resources do you use? *(Tick all that apply)*

- ☐ Formal education (courses)
- ☐ Social media
- ☐ Friends
- ☐ Online websites
- ☐ Books or journals
- ☐ Others (please specify): _____

2 Rating Scales

Rating scales measure the intensity or degree of a respondent's perception or evaluation.



Key features

- Respondents indicate their level of agreement, importance, frequency, satisfaction or other perceptions on a predefined scale.
- Common formats include Likert scales, numerical rating scales, frequency scales and importance scales.
- Allow measurement of attitudes, perceptions and opinions.
- Easy to analyse and suitable for statistical analysis.

Tips for writing

- Clearly define what each scale point means (e.g. 1 = Strongly disagree, 7 = Strongly agree).
- Ensure the scale is consistent across all items.
- Keep the number of scale points reasonable (e.g. 5 or 7 points).
- Use clear and balanced statements (avoid leading or double-barrelled questions).

Example from an instrument (7-point rating scale)

		1	2	3	4	5	5	6	7	
Waiting time	Very poor	☐	☐	☐	☐	☐	☐	☐	☐	Excellent
How important is the length of waiting time to you?	Not important	☐	☐	☐	☐	☐	☐	☐	☐	Very important
Quality of magazines in waiting room	Very poor	☐	☐	☐	☐	☐	☐	☐	☐	Excellent
How important is the quality of magazines in waiting room to you?	Not important	☐	☐	☐	☐	☐	☐	☐	☐	Very important

COMMON MISTAKES IN CLOSED QUESTIONS

What might be wrong with this closed question?

1 Ensure all options are covered

- When writing closed questions, make sure you include all possible options or it could bias the analysis.
- If unsure whether you have covered everything, **add an "Other" option** to capture that data.

2 Limited opportunity to explain

- Answers from closed questions are easier to analyse, but you are not leaving it open to allow respondents to **raise unexpected or missed issues,** OR **to explain their answers.**

3 Order of options can influence responses

- Research has shown that in **self-completion questionnetires,** the **first options** on a list are chosen most often – whereas in **interview situations,** the **latter options** are chosen most often.

Apakah minuman pertama yang anda miliki hari ini?

- ☐ Teh
- ☐ kopi
- ☐ air
- ☐ Juice
- ☐ Belum minum hari ini
- ☐ Selain daripada di atas (sila nyatakan)

Possible problems

- The list may not cover all possible drink options (e.g. milo, soft drink, latte, green tea, etc.).
- It may bias the results if important options are missing.
- Respondents may have a reason for their choice but there is limited opportunity to explain (except for the last option).

Additional information

- Consider the purpose of the question and the target respondents. If there is a possibility of **other valid responses,** include an **"Other"** option with a space to specify.



ADDITIONAL CONSIDERATIONS FOR CLOSED QUESTIONS

1 Important Considerations

Closed-ended questions are easier to analyse statistically.

However, they **may limit respondents** from expressing:

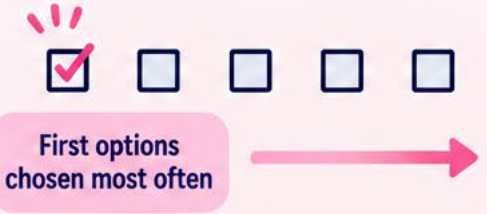
- unexpected opinions
- nuanced explanations
- alternative perspectives

2 Research Finding

Respondents tend to choose **different options** depending on the data collection method.

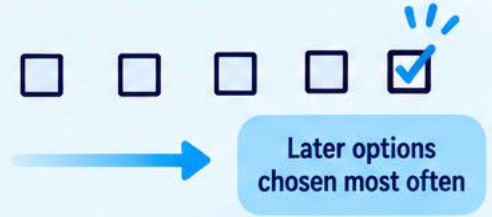
Self-administered questionnaires

Respondents tend to select **earlier options** more frequently.



Interview settings

Respondents tend to select **later options** more frequently.



Sometimes it can be better to appear **pedantic** than to **risk skewing the responses.**

Always consider the purpose of the question and the target respondents.
Include an **"Other"** option when there is a possibility of additional valid responses.

COMMON ERROR IN DEMOGRAPHIC CATEGORIES

Incorrect *(Overlapping categories)*

What is your age group?

- ☐ 0 – 18
- ☐ 18 – 30
- ☐ 30 – 45
- ☐ 45+

The value 18, 30 and 45 fall into two categories, so respondents may be unsure which option to choose.



Key Principle

Response categories must be **mutually exclusive** to avoid ambiguity and statistical bias.

Correct *(Mutually exclusive categories)*

What is your age group?

- ☐ 0 – 18
- ☐ 19 – 30
- ☐ 31 – 45
- ☐ 46+

Each age range is mutually exclusive, so every respondent fits into one and only one category.

Income range

Gaps or overlaps can cause ambiguity and affect the accuracy of the data.

Incorrect	Correct
☐ Below RM1000	☐ Below RM1000
☐ RM1000 – RM3000	☐ RM1001 – RM3000
☐ RM3000 – RM5000	☐ RM3001 – RM5000
☐ RM5000+	☐ RM5001+

Years of experience

Ensure the ranges do not overlap and cover all possible values.

Incorrect	Correct
☐ 0 – 5 years	☐ 0 – 4 years
☐ 5 – 10 years	☐ 5 – 9 years
☐ 10 – 15 years	☐ 10 – 14 years
☐ 15+ years	☐ 15+ years

Education level

Categories should be clear and non-overlapping, with appropriate wording.

Incorrect	Correct
☐ Secondary school	☐ Secondary school or below
☐ Diploma	☐ Diploma
☐ Bachelor's degree	☐ Bachelor's degree
☐ Postgraduate	☐ Master's degree or above

Time to Apply What You Have Learned!

Complete all the activities and strengthen your understanding of Module 3.

1 Crossword Puzzle

Test your understanding of key terms in questionnaire design and closed questions.



Example of key terms:

- Questionnaire
- Validity
- Scale
- Response
- Options

2 Word Search

Find the hidden words related to questionnaire items, types of questions and best practices.

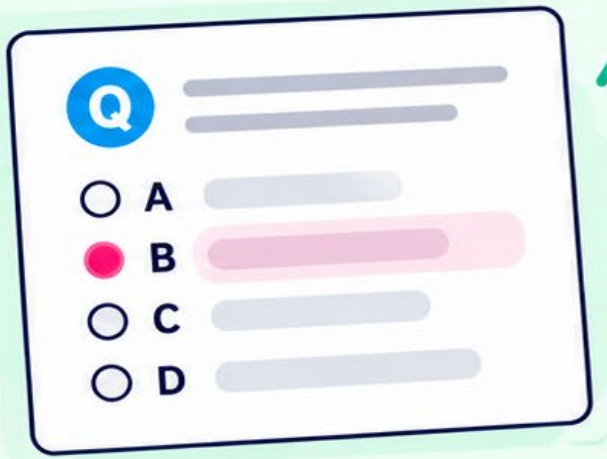
V	A	L	I	D	T	Y	Q	M
Q	U	E	S	T	O	N	N	Y
R	E	L	I	B	E	E	T	S
R	E	S	P	O	N	S	C	C
D	A	T	A	T	E	M	A	L
R	A	N	K	I	N	G	S	L
O	O	P	T	O	S	Z	N	E

Sample words:

- Validity
- Reliability
- Response
- Data
- Item
- Ranking
- Options
- Scale
- Question

3 Assessment Quiz

Answer a set of multiple-choice questions to check your understanding of Module 3.



Activity Instructions

Complete all three activities to reinforce your learning from Module 3.

Assessment Information

- You are allowed up to 3 attempts for the assessment quiz.
- Each attempt will include a new set of questions.

Maximum attempts
3 times

Passing criteria
≥ 60%

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THANK YOU