KONVENSYEN
QA KEBANGSAAN
KALI KE-12
"Compassionate Co-production"
8 – 10 OKTOBER 2024 | KLANA RESORT, SEREMBAN

KEMENTERIAN KESIHATAN MALAYSIA
INSTITUT PENYELIDIKAN SISTEM KESIHATAN

KEMENTERIAN KESIHATAN MALAYSIA
JABATAN KESIHATAN NEGERI SEMBILAN

MSQH

SESI SIMPOSIUM (8 OKTOBER 2024 /8.30 - 9.30 MALAM)

SILA IMBAS KOD QR ATAU AKSES PAUTAN UNTUK PENGESAHAN KEHADIRAN

QA symposium 2024, Kelana Resort, Negeri Sembilan

8 October 2024

Crafting precision: The art of questionnaire pre-testing



Dr Sarah Nurain Mohd Noh & Puan Suhana Jawahir

INSTITUTE FOR HEALTH SYSTEMS RESEARCH

Ice-breaking

Join at

slido.com

#1921 725



The questionnaire development process[1]



Information needs

Survey type

Types of questions

Writing questions

Questionnaire testing

- **Pre-testing**
- **Reliability testing**
- **Validity testing**

Finalised questionnaire

source:
1. Hamed Taherdoost.DesigningaQuestionnaireforaResearchPaper:AComprehensiveGuideto Design andDevelopanEffectiveQuestionnaire.AsianJournalofManagerialScience,2022,11,pp.8 - 16.□10.51983/ajms-2022.11.1.3087□.□hal-03741836□

Objectives of this session

Understand

- Understand why pretesting is crucial—ensuring that each question is not only clear but also effective in collecting the right information to meet the study's goals.

..And Do

- Identify and correct various issues—whether it's unclear wording, confusing instructions, or response options that don't quite fit.
- Hands-on & Discussion







Common tool
in a survey



Affects quantity & quality
of data



Poorly-designed → Biases & errors

Well-designed → Accurate and
adequate responses



Common tool
in a survey

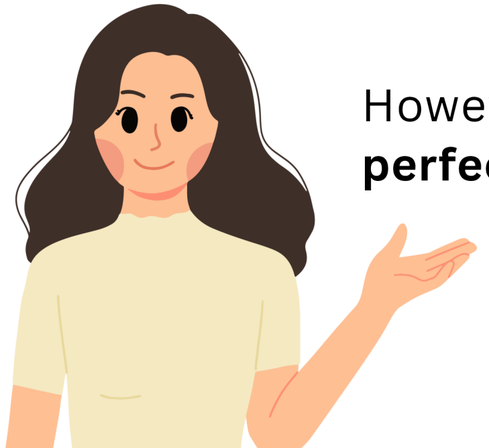


Affects quantity & quality
of data



Poorly-designed → Biases & errors

Well-designed → Accurate and
adequate responses



However, it should be noted that
perfect result is impossible.



Common tool
in a survey



Affects quantity & quality
of data



Poorly-designed → Biases & errors

Well-designed → Accurate and adequate responses



but **how would you know** that your questionnaire is ready to be fielded?

What is pre-testing?

An essential activity in the survey questionnaire development process.



Why pre-test?

Questionnaire pretesting helps in:

- **measuring what you really want to measure**
- **identifying :**
  - **inappropriate terms** in questions wording
  - **inappropriate order**
  - **errors** in questions
  - **instructions**
  - other problems which might result in respondents' inability to answer certain questions

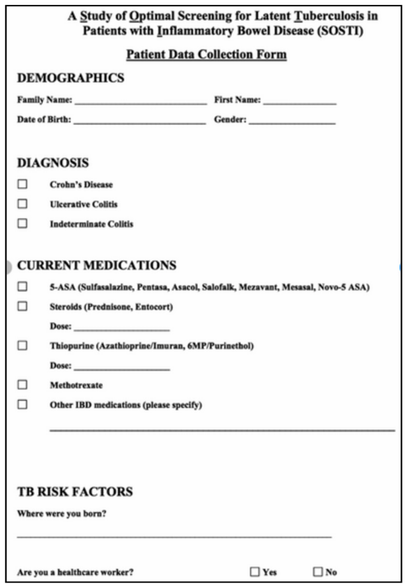
Two approaches of pre-testing

Interviewer-based (F2F)

- Non-verbal cues can be detected
- Costly & time-consuming
- Verbal feedback
- Verbal clarification / explanation



Self-administered (SAQ)



A Study of Optimal Screening for Latent Tuberculosis in Patients with Inflammatory Bowel Disease (SOSTI)

Patient Data Collection Form

DEMOGRAPHICS

Family Name: _____ First Name: _____

Date of Birth: _____ Gender: _____

DIAGNOSIS

☐ Crohn's Disease

☐ Ulcerative Colitis

☐ Indeterminate Colitis

CURRENT MEDICATIONS

☐ 5-ASA (Sulfasalazine, Pentasa, Asacol, Salofalk, Mezavant, Mesasal, Novo-5 ASA)

☐ Steroids (Prednisone, Entocort)

Dose: _____

☐ Thiopurine (Azathioprine/Imuran, 6MP/Purinethol)

Dose: _____

☐ Methotrexate

☐ Other IBD medications (please specify)

_____

TB RISK FACTORS

Where were you born?

_____

Are you a healthcare worker? ☐ Yes ☐ No

- Online / handouts
- Self-explanatory
- Interpret written feedback
- Less cost & time-saving

Principles of how to conduct pre-test

Suggested **15-30 respondents for pre-test** [2]

Target population **General / Specific**

- Education level
- Type of occupation
- Gender
- Ethnic
- Age

Focus on the CONTENT, not the answers

Clarity
Ambiguity
Relevance
Simplicity

Encourage respondents to **think out loud for difficult questions**,

Also, **non-verbal communication** is important



Source:
2. Perneger TV, Courvoisier DS, Hudelson PM, Gayet-Ageron A. Sample size for pre-tests of questionnaires. Qual Life Res. 2015 Jan;24(1):147-51. doi: 10.1007/s11136-014-0752-2. Epub 2014 Jul 10. PMID: 25008261.



Why pre-test?

Questionnaire pretesting helps in:

- **measuring what you really want to measure**
- **identifying :**
  - **inappropriate terms** in questions wording
  - **inappropriate order**
  - **errors** in questions
  - **instructions**
  - **other problems** which might result in respondents' inability to answer certain questions

Photo courtesy:
Pre-test questionnaire at Klinik X for research project titled Research Utilisation Assessment and Revision of Healthcare Demand Questionnaire for the National Health and Morbidity Survey (NHMS) 2023

measuring what you really want to measure

Why pre-test?

Intended question

Dalam tempoh 7 hari yang lepas, pernahkah anda mengalami masalah kesihatan?
In the past 7 days, have you experienced health problems?

What does “in the past 7 days” mean to you?
what days did you include?



What does “health problems” include?
Does it include dental problems too?



measuring what you really want to measure

Why pre-test?

Intended question

Dalam tempoh 7 hari yang lepas, pernahkah anda mengalami masalah kesihatan?
In the past 7 days, have you experienced health problems?

Refined question: added examples for clarity

Dalam tempoh 7 hari yang lepas, ***dari ... 2024 hingga hari ini****, pernahkah anda mengalami masalah kesihatan* ***seperti demam, selsema, cirit-birit dan lain-lain****?* ***(tidak termasalah mulut atau gigi)***

In the past 7 days, from ... until today, have you experienced health problems such as fever, runny nose, cough, diarrhoea and others? (excluding dental problems)

Include a Code Book for clarity

Kod A - Masalah Kesihatan *Health Problem*

Kod/Code	Pilihan Jawapan/ *Choice of Answer*
01	Demam/ *Fever*
02	Sakit tekak/ *Sore throat*
03	Sukar untuk menelan/ *Difficulty in swallowing*
04	Selesema/Hidung tersumbat/ *Running nose/Blocked nose*
05	Batuk (berkahak atau tanpa kahak)/ *Cough (with or without phlegm)*
06	Nafas berbunyi/Asma/ *Wheezing/Asthma*
07	Sakit telinga/Telinga bernanah/ *Earache/Pus from ear(s)*
08	Sakit mata/Radang mata/ *Conjunctivitis*
09	Sakit perut/ *Stomach ache*
10	Kembung perut/ *Bloated stomach*
11	Cirit birit/ *Diarrhoea*
12	Muntah/ *Vomiting*
13	Sakit ulu hati/ *Heartburn*
14	Masalah kencing/ *Urination problem*
15	Bengkak/ *Swelling*
16	Masalah kulit/Ekzema/ *Skin problem/Eczema*
17	Sakit kepala/Pening Kepala/ *Headache/Dizziness/Giddiness*
18	Alahan/ *Allergies*
20	Luka/ *Skin lesion*
21	Sakit dada/ *Chest pain*
22	Sakit sendi/ *Joint pain*
23	Lain-lain masalah/ *Others*

Source: Code Book NHMS 2019 (Healthcare Demand module), page 18

identifying: inappropriate terms

Why pre-test?

Intended question

Pernahkah anda diberitahu oleh pengamal kesihatan bahawa anda menghidap Diabetes?

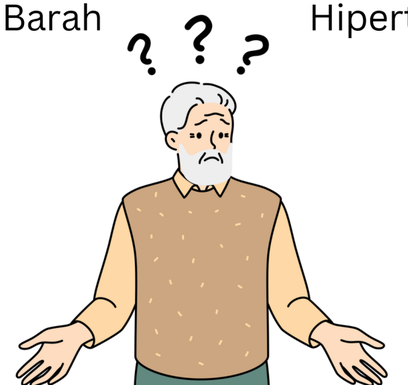
Have you ever been told by healthcare practitioner(s) that you have Diabetes?

Are there any **hard-to-understand** terms used?
Check special words/technical phrases.

Jangkitan saluran kencing / Kencing kotor



Kanser / Barah



Hipertensi / Tekanan darah tinggi

identifying: inappropriate terms

Why pre-test?

Intended question	*Pernahkah anda diberitahu oleh pengamal kesihatan bahawa anda menghidap Diabetes?* Have you ever been told by healthcare practitioner(s) that you have Diabetes?
Refined question	*Pernahkah anda diberitahu oleh pengamal kesihatan bahawa anda menghidap **Kencing Manis**?* *Have you ever been told by healthcare practitioner(s) that you have Diabetes?*

identifying: inappropriate order

Why pre-test?

Intended questions

Dalam tempoh 7 hari yang lepas, dari ... 2024 hingga hari ini,
pernahkah anda mengalami masalah kesihatan seperti demam, selsema, cirit-birit dan lain-lain? (tidak termasalah mulut atau gigi)

In the past 7 days, from ... until today, have you experienced health problems such as fever, runny nose, cough, diarrhoea and others? (excluding dental problems)

Are the questions arrangements **disrupt the natural** flow / not in suitable place?

***Dalam tempoh 12 bulan yang lepas, dari ... 2023 hingga hari ini**, pernahkah anda mendapatkan pemeriksaan kesihatan seperti ujian darah, ujian air kencing, x-ray dan lain-lain perkhidmatan kesihatan?*

In the past 12 months, from ... 2023 until today, did you go for a medical check-up such as a blood test, urine test, x-ray and other services?



***Dalam tempoh 1 bulan yang lepas, dari ... 2024 hingga hari ini**, adakah anda membeli suplemen / makanan tambahan untuk tujuan kesihatan?*

In the past 12 months, from ... 2024 until today, did you buy dietary supplement(s) for health purposes?

identifying: inappropriate order

Why pre-test?

Intended questions

Dalam tempoh 7 hari yang lepas, dari ... 2024 hingga hari ini,
pernahkah anda mengalami masalah kesihatan seperti demam, selsema, cirit-birit dan lain-lain? (tidak termasalah mulut atau gigi)

In the past 7 days, from ... until today, have you experienced health problems such as fever, runny nose, cough, diarrhoea and others? (excluding dental problems)

Refined flow: Rearranged according to **recall periods**

Dalam tempoh 1 bulan yang lepas, dari ... 2024 hingga hari ini*, adakah anda membeli suplemen / makanan tambahan untuk tujuan kesihatan?*

In the past 12 months, from ... 2024 until today, did you buy dietary supplement(s) for health purposes?

Dalam tempoh 12 bulan yang lepas, dari ... 2023 hingga hari ini*, pernahkah anda mendapatkan pemeriksaan kesihatan seperti ujian darah, ujian air kencing, x-ray dan lain-lain perkhidmatan kesihatan?*

In the past 12 months, from ... 2023 until today, did you go for a medical check-up such as a blood test, urine test, x-ray and other services?

identifying: errors in questions (example: looping error)

Why pre-test?

Intention of the study (Intro)

The purpose of this study is to assess the knowledge and attitude toward antibiotic(s) prescription among adult patients (aged 18 years and above) in Malaysia. Please tick "✓" in the box that describes yourself.

Gender: ✓[]1 Female []2 Male

Age: ✓[]1 ≤17 years old
[]2 18-39 years old
[]3 40- 59years old
[]4 ≥60 years old

Have you noticed any looping error?

Ethnic: []1 Malay []2 Chinese []3 Indian ✓[] 4 Others, please specify: Murut

identifying: errors in questions (example: looping error)

Why pre-test?

Intention of the study (Intro)

The purpose of this study is to assess the knowledge and attitude toward antibiotic(s) prescription among adult patients (aged 18 years and above) in Malaysia. Please tick "✓" in the box that describes yourself.

Gender: ✓[]1 Female []2 Male

Age: ✓[]1 ≤17 years old **(proceed to next section)**
[]2 18-39 years old
[]3 40- 59years old
[]4 ≥60 years old

Added looping instructions for ineligible respondents

Ethnic: []1 Malay []2 Chinese []3 Indian [] 4 Others, please specify:

identifying: errors in questions (example: double barrel questions)

Why pre-test?

Intended question

Pernahkah anda diberitahu oleh pengamal kesihatan bahawa anda menghidap Diabetes dan menerima ubat-ubatan?

Have you ever been told by healthcare practitioner(s) that you have Diabetes and received medications?

I intend to measure those who have Diabetes, and those who have, did they receive medications?



A person may have Diabetes,
but **may or may not receive medications**

What do you mean by “medications”?
Does it include injections as well?

identifying: errors in questions (example: double barrel questions)

Why pre-test?

Intended question

Pernahkah anda diberitahu oleh pengamal kesihatan bahawa anda menghidap Kencing Manis dan menerima ubat-ubatan?

Have you ever been told by healthcare practitioner(s) that you have Diabetes and received medications?

Refined question: Removing double barrel and **breaking down the questions into parts**

Pernahkah anda diberitahu oleh pengamal kesihatan bahawa anda menghidap Kencing Manis?
Have you ever been told by healthcare practitioner(s) that you have Diabetes and received medications?
Ya / Yes
Tidak / No

*Jika YA, adakah anda menerima ubat-ubatan **termasuk suntikan**?*
If YES, did you receive medications **including injections**?
Ya / Yes
Tidak / No

Added in for clarity

identifying: errors in questions (example: answer options)

Why pre-test?

Intended questions

Pernahkah anda diberitahu oleh pengamal kesihatan bahawa anda menghidap Kencing Manis?
Have you ever been told by healthcare practitioner(s) that you have Diabetes?
Ya / Yes
Tidak / No

Jika YA, adakah anda menerima ubat-ubatan ***termasuk suntikan****?*
If YES, did you receive medications **including injections**?
Ya / Yes
Tidak / No

What about if the respondent is **not sure**?
Or prefer not to answer?

identifying: errors in questions (example: answer options)

Why pre-test?

Intended questions	*Pernahkah anda diberitahu oleh pengamal kesihatan bahawa anda menghidap Kencing Manis dan menerima ubat-ubatan?* Have you ever been told by healthcare practitioner(s) that you have Diabetes and received medications?
Refined question: Adding answer options	*Pernahkah anda diberitahu oleh pengamal kesihatan bahawa anda menghidap Kencing Manis?* Have you ever been told by healthcare practitioner(s) that you have Diabetes and received medications? *Ya* / Yes *Tidak* / No ***Tidak tahu* / Don't know** ***Enggan jawab* / Refuse to answer** *Jika YA, adakah anda menerima ubat-ubatan termasuk suntikan?* If YES, did you receive medications including injections? *Ya* / Yes *Tidak* / No ***Tidak tahu* / Don't know** ***Enggan jawab* / Refuse to answer**

identifying: unclear instructions

Why pre-test?

Intended questions

Adakah masalah kesihatan tersebut mengganggu aktiviti harian, belajar atau kerja anda?
Pilih jawapan anda

Did the health problem disturb your daily activities, study or work activities?
Select you answer

Answer options

Aktiviti harian	Strongly disagree	1	2	3	4	5	6	7	Strongly agree
Belajar	Strongly disagree	1	2	3	4	5	6	7	Strongly agree
Kerja	Strongly disagree	1	2	3	4	5	6	7	Strongly agree

Circle answer?
Tick?
or Mark with “X”?

Where do i circle?
on the statement
or numbers?

Choose only one
or more?

identifying: unclear instructions

Why pre-test?

Intended questions

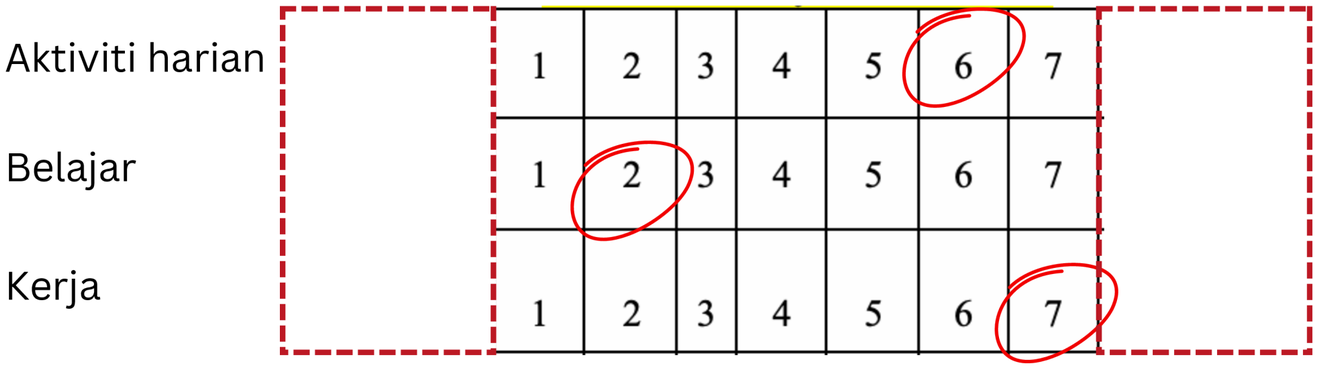
Adakah masalah kesihatan tersebut mengganggu aktiviti harian, belajar atau kerja anda?
Bulatkan satu jawapan UTAMA sahaja.

Did the health problem disturb your daily activities, study or work activities?
Circle only one MAIN answer.

Refined answer options:

Additional instructions for clarity

Number 1 indicates strongly disagree, and number 7 indicates strongly agree.



	1	2	3	4	5	6	7
Aktiviti harian						✓	
Belajar		✓					
Kerja							✓

Removed confusing statements

identifying: other problems which might result in respondents' inability to answer certain questions (example: dietary practices)

Why pre-test?

Intended question

Biasanya, berapa sajian buah-buahan yang anda makan dalam sehari?

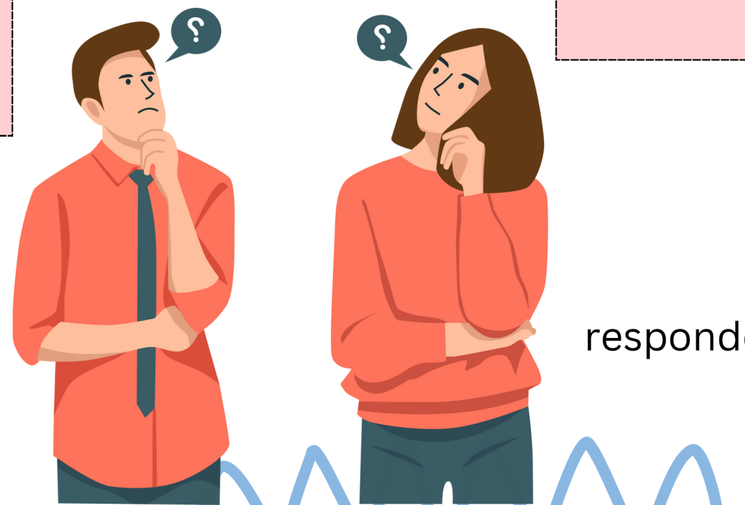
Usually, how many servings of fruits do you eat in a day?

What do "servings" / "sajian" mean?

Can apples be compared to bananas?

How much is ONE serving?

What if I don't eat fruits on a daily basis?



you

respondent

identifying: other problems which might result in respondents' inability to answer certain questions (example: dietary practices)

Why pre-test?

Intended question

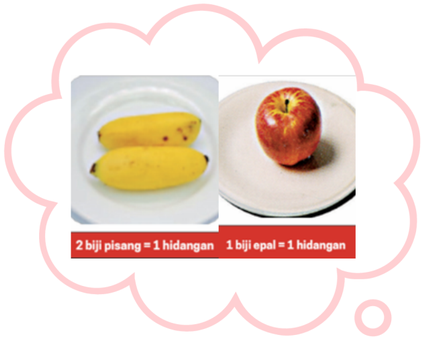
Biasanya berapa sajian buah-buahan yang anda makan dalam sehari?
Usually, how many servings of fruits do you eat in a day?

Bil. sajian / No. of serving:

Refined question: Extended the question for clarity

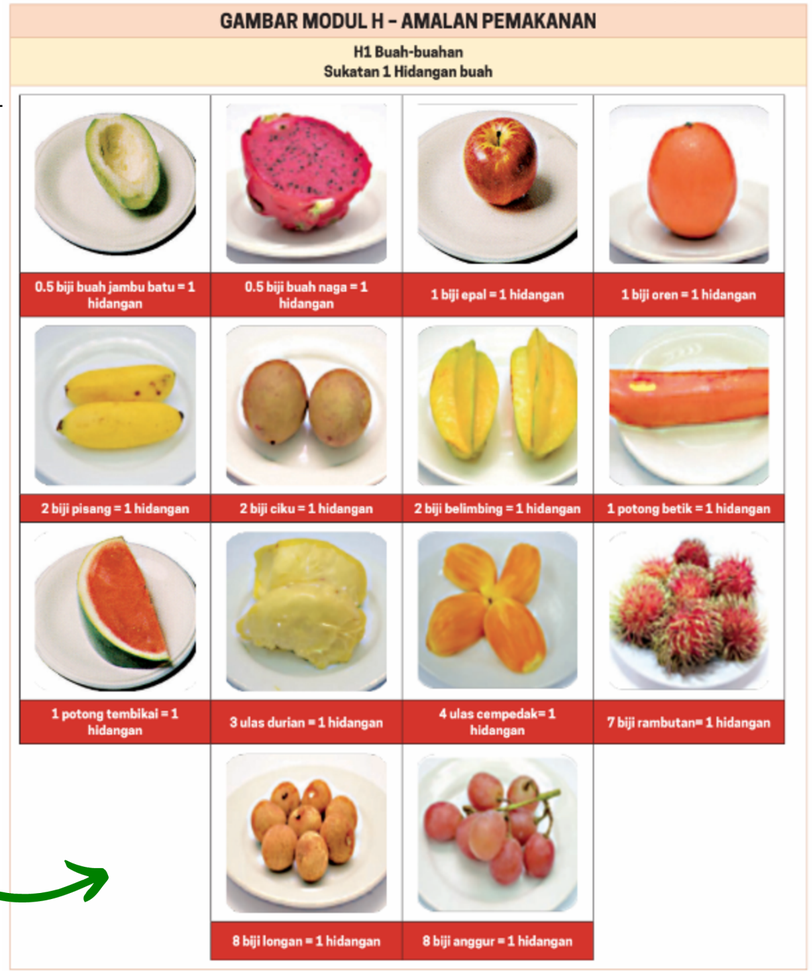
*Biasanya **pada hari yang anda makan buah-buahan**, berapa sajian yang anda makan?*
Sila rujuk Buku Kod H1 untuk anggaran saiz sajian.
Usually on the day that you eat fruits, how many servings do you take? Please **refer to the Code Book H1 for serving size estimation.**

Bil. sajian / No. of serving:





Having a **Code Book** for respondents to refer (graphical examples)



source: Code Book NHMS 2023, page 3

Why pre-test?

identifying: other problems which might result in respondents' inability to answer certain questions

Are any offensive/sensitive questions used?
Does the question make people do not prefer / hesitate to answer?

Examples:

Family history - Death in family, hereditary disease
Medical history - Mental health, cancer, STD
Sexual history - MSM
Domestic violence
History of incrimination
Illegal immigrants / foreigners
Substance abuse
Smoking status
Income



identifying: other problems which might result in respondents' inability to answer certain questions (example: income)

Why pre-test?

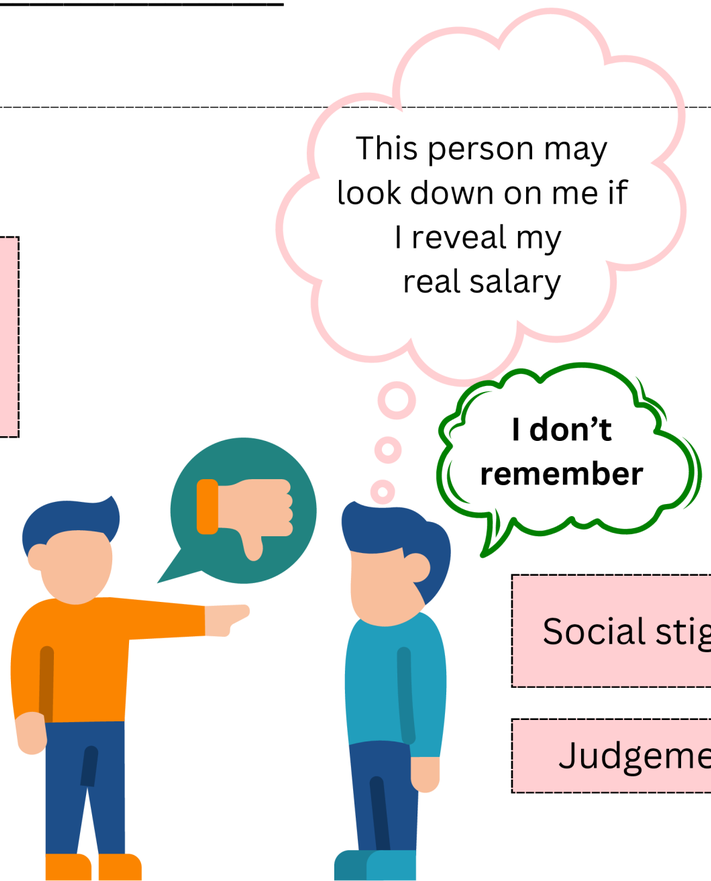
Intended question

Berapakah pendapatan anda sebulan daripada bekerja (upah/gaji) atau pencen?
How much is your monthly income from work (wage/salary) or pension?

Intended answer options

Jumlah pendapatan sebulan: RM _____
Total salary: RM _____

Does the question make people hesitate to answer?



Social stigma

Judgement

Why pre-test?

identifying: other problems which might result in respondents' inability to answer certain questions (example: income)

Intended question	*Berapakah pendapatan anda sebulan daripada bekerja (upah/gaji) atau pencen?* How much is your monthly income from work (wage/salary) or pension?
Intended answer options	*Jumlah pendapatan sebulan:* RM _____ Total salary: RM _____
Refined answer options: Range of salary	*Jumlah pendapatan sebulan* Total salary < RM 1,000 RM 1,000 - RM 4,999 RM 5,000 - RM 9,999 > RM 10,000

Oh this seems okay to answer

Below RM 1.000



identifying: other problems which might result in respondents' inability to answer certain questions (example: smoking)

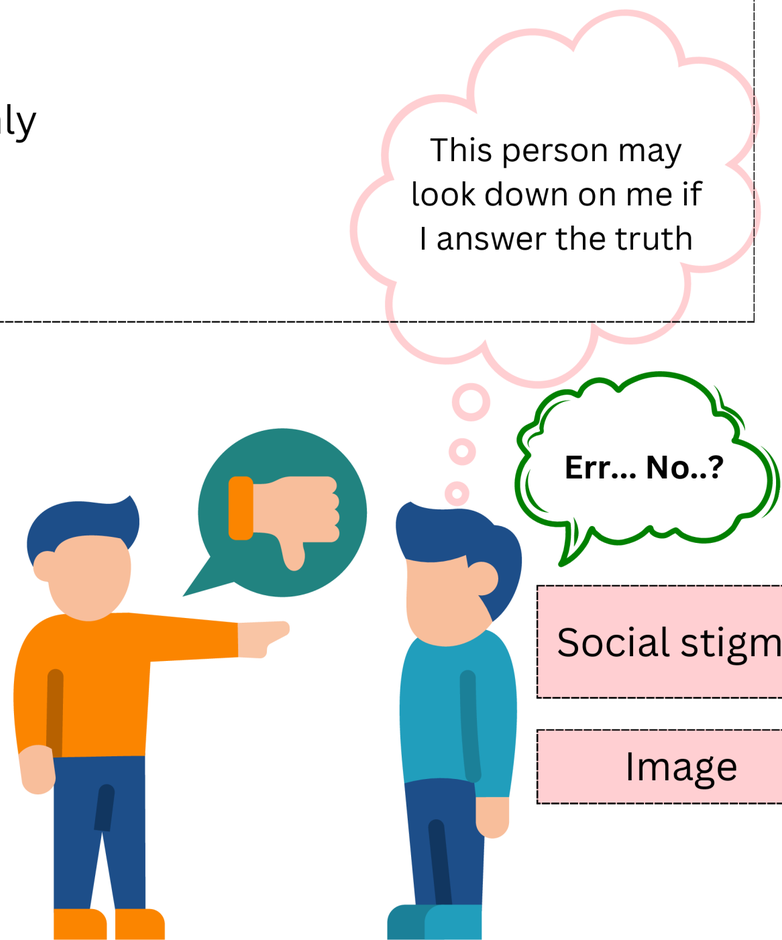
Why pre-test?

Intended question

Berapa kerapkah anda merokok di dalam rumah anda?
How often do you smoke inside your house?

Setiap hari / Daily
Setiap minggu / Weekly
Setiap bulan / Monthly
Kurang dari setiap bulan / Less than monthly
Tidak pernah / Never
Tidak tahu / Don't know
Enggan jawab / Refuse to answer

Are there questions generating **socially desirable responses**?
i.e "Nice answers", not entirely true



Social stigma

Image

identifying: other problems which might result in respondents' inability to answer certain questions (example: smoking)

Why pre-test?

Intended question

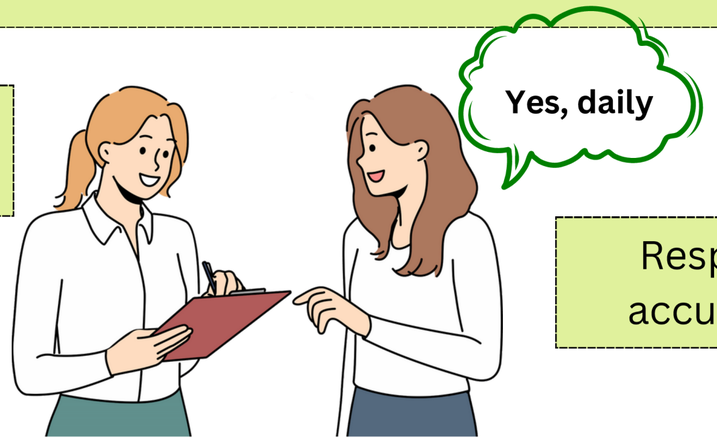
Berapa kerapkah anda merokok di dalam rumah anda?
How often do you smoke inside your house?

Setiap hari / Daily
Setiap minggu / Weekly
Setiap bulan / Monthly
Kurang dari setiap bulan / Less than monthly
Tidak pernah / Never
Tidak tahu / Don't know
Enggan jawab / Refuse to answer

Refined question

*Berapa kerapkah **seseorang** merokok di dalam rumah anda?*
How often does **anyone** smoke inside your house?

Interviewer gets the accurate data



Respondent can answer accurately without worry

Principles of how to conduct pre-test

Suggested
15-30 respondents for pre-test [2]

Target population
General / Specific

- Education level
- Type of occupation
- Gender
- Ethnic
- Age

Focus on the CONTENT, not the answers

Clarity
Ambiguity
Relevance
Simplicity

Encourage respondents to **think out loud for difficult questions**,

Also, **non-verbal communication** is important



Source:
2. Perneger TV, Courvoisier DS, Hudelson PM, Gayet-Ageron A. Sample size for pre-tests of questionnaires. Qual Life Res. 2015 Jan;24(1):147-51. doi: 10.1007/s11136-014-0752-2. Epub 2014 Jul 10. PMID: 25008261.

Focus on the CONTENT, not the answers

Clarity
Ambiguity
Relevance
Simplicity

Encourage respondents to **think out loud for difficult questions**,

Also, **non-verbal ques** are important

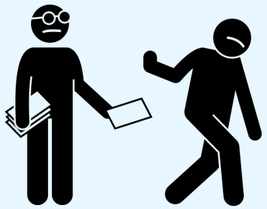
Non-verbal Ques

Eye contact

Facial expressions
i.e Confused ? Angry ?

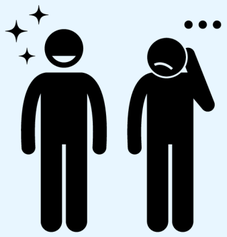


ask the respondent what is the way he/she would say it (obtain local word if necessary)



Probe the situation

this identifies what are the problems. i.e difficult q/terms / sensitive/not belonging etc



After pre-test

1. Conduct a **cognitive debriefing** session with respondents
   - Directly ask respondents about their interpretation of specific items/terms.
   - You may find that people read what you wrote quite differently than you intended.
2. **Compile** all problem words/phrases and tag them
3. **Discuss** with your team members and refine your questionnaire / tool
   - Remember that your participants are the experts when it comes to understanding your questions. But, you are the ultimate authority.

1. Conduct a **cognitive debriefing** session with respondents
   - Directly ask respondents about their interpretation of specific items/terms.
   - You may find that people read what you wrote quite differently than you intended.

Intended question

Bagi soalan **B1501** (Adakah sakit yang berterusan itu mengganggu anda bekerja, belajar atau melakukan aktiviti-aktiviti harian?), pilihan jawapan yang manakah lebih mudah untuk difahami dan dijawab?

*For question **B1501** (Did the pain interfere with your ability to work, study or manage your day-to-day activities?), which answer choices are easier to understand and answer?*

1 Tidak mengganggu *Not at all*
2 Sedikit mengganggu *A little bit*
3 Agak mengganggu *Moderately*
4 Kerap mengganggu *Quite a lot*
5 Amat mengganggu *Extremely*

Intended answer options

Atau *Or*



Cognitive question to respondent:

Pilihan jawapan yang manakah lebih mudah untuk difahami & dijawab?

2 **Compile** all problem words/phrases and tag them

Table 4: Common issues identified by participants in first round of interviews

General Formatting Issues	
Make the words larger	
Issues with Instructions	
Put recall period in bold type	
Instructions are too long	
Young children didn't understand the words "questionnaire" or "accurate"	
Item Comprehension Issues: Word Meaning	
Problematic Word	***Suggested Change***
"clothing drawers"	"dresser drawers"
"irritable"	"grumpy", "cranky"
"worry"	"scared"
"stressed"	"mad", "upset"
"exhausted"	"tired"
"how severe"	"how bad"
"social activities"	"activities with friends"
"ER"	"emergency room"
"grumpy"	"mad", "angry"
"rely"	"trust"
"furious"	"angry", "mad"
"frustrated"	"grouchy", "mad"
"frightened"	"scared", "afraid"
"snaps" (i.e., shirt snaps)	"zipper", "button"

Issue:
“instructions are too long”

Problematic word:
“stressed”

Alternative:
“mad / upset”

Problematic word:
“ER”

Problematic word:
“Emergency Room”

2 **Compile** all problem words/phrases and tag them

Item Comprehension Issues: Vague/Ambiguous Words/ Phrases

ProblematicWords/Phrases	*Explanation*
"activities"	Could mean sports or hobbies (i.e., crafts)
"clothes"	Could mean pants, shirts, or both
"walk"	Could be a block or a mile
"hard to have fun"	Doesn't specify if it's hard due to physical or emotional issues
"did things"	Isn't specific. What kinds of things?
"go out"	Could mean going outside (i.e., to play) or going out with family/friends (i.e., to dinner)
"relationships"	Could mean relationships with friends, family, teachers, or others
"others"	Could mean friends, family, teachers, strangers, or others
"I felt like I did everything badly"	Unclear if it is due to poor performance or if they got in trouble
"I felt so bad that I didn't want to do anything"	Unclear if "bad" referred to physical health, guilt/shame, or low self-esteem.
"feel terrible"	Could mean physically or emotionally

Vague phrase:
“feel terrible”

Issues with Item Tense

Past tense items were preferred over present tense items

Alternative:
feel terrible emotionally?
feel terrible physically? any pain?

3 **Table** & **Discuss** with your team members and refine your questionnaire / tool

- Remember that your participants are the experts when it comes to understanding your questions. But, you are the ultimate authority.

First Version	Revised Version	Reason(s) for the Revision
How severe was your asthma?	My asthma was really bad.	Four out of six of the children had a difficultly defining "severe" and three out of six suggeste rewording it to "How bad is your asthma."
Did you feel that you got easily exhausted?	I tired easily because of my asthma.	Three out of six of the children had trouble defining or understanding the word "exhausted" and used tired as a synonym to interpret the question.
Did asthma bother you if you wanted to go out?	My asthma bothered me when I was with my friends.	Four out of six of the children defined "go out as going outside to do something or to play outside. This resulted in some of the children factoring the weather into the state of their asthma. Another kid interpreted "go out" as going to dinner or doing anything else outside of the house. The interpretation was not consistent and if factoring in weather, the degree of variability is even higher.

Document all feedback in writing

Good practice - to track back what were the changes and why

Take home message

The pretest is an element of the survey process that **should not be omitted**.

Without a pretest even experienced researchers can administer a faulty survey, putting into question any results and the quality of your survey.



References:
1. Hamed Taherdoost.Designing a Questionnaire for a Research Paper:A Comprehensive Guide to Design and Develop an Effective Questionnaire.AsianJournalofManagerialScience,2022,11,pp.8-16.

2. Dean, E., Caspar, R., McAvinchey, G., Reed, L., & Quiroz, R. (2005). Developing a low-cost technique for parallel cross-cultural instrument development: the Question Appraisal System (QAS-04). In J. H. P. Hoffmeyer-Zlotnik, & J. Harkness (Eds.), Methodological aspects in cross-national research (pp. 31-46). Mannheim: GESIS-ZUMA. https://nbnresolving.org/urn:nbn:de:0168-ssoar-49145-7

Focus on the CONTENT of your questionnaire, NOT your answers

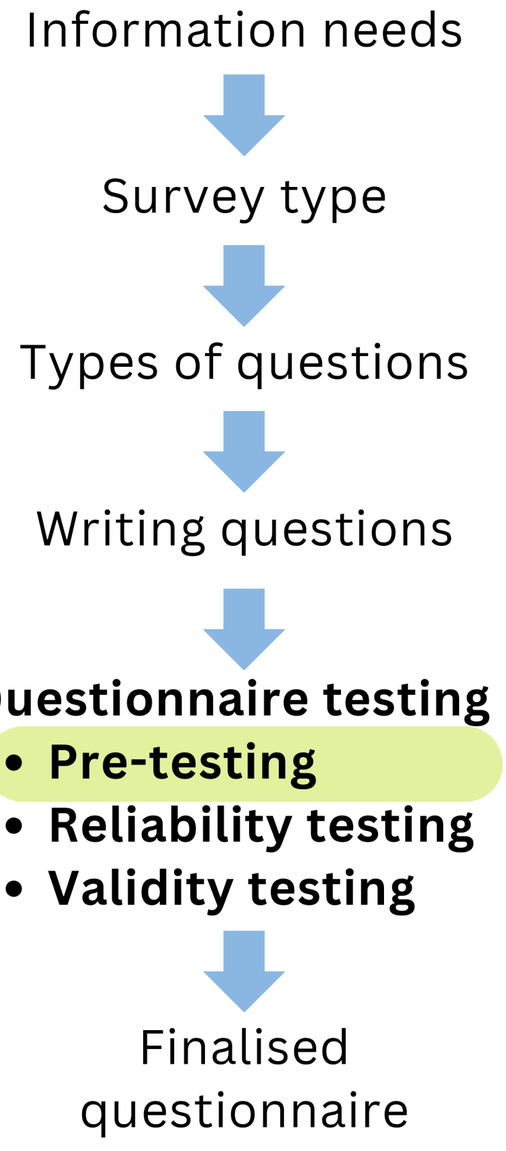
Always remember the goal



All the best!

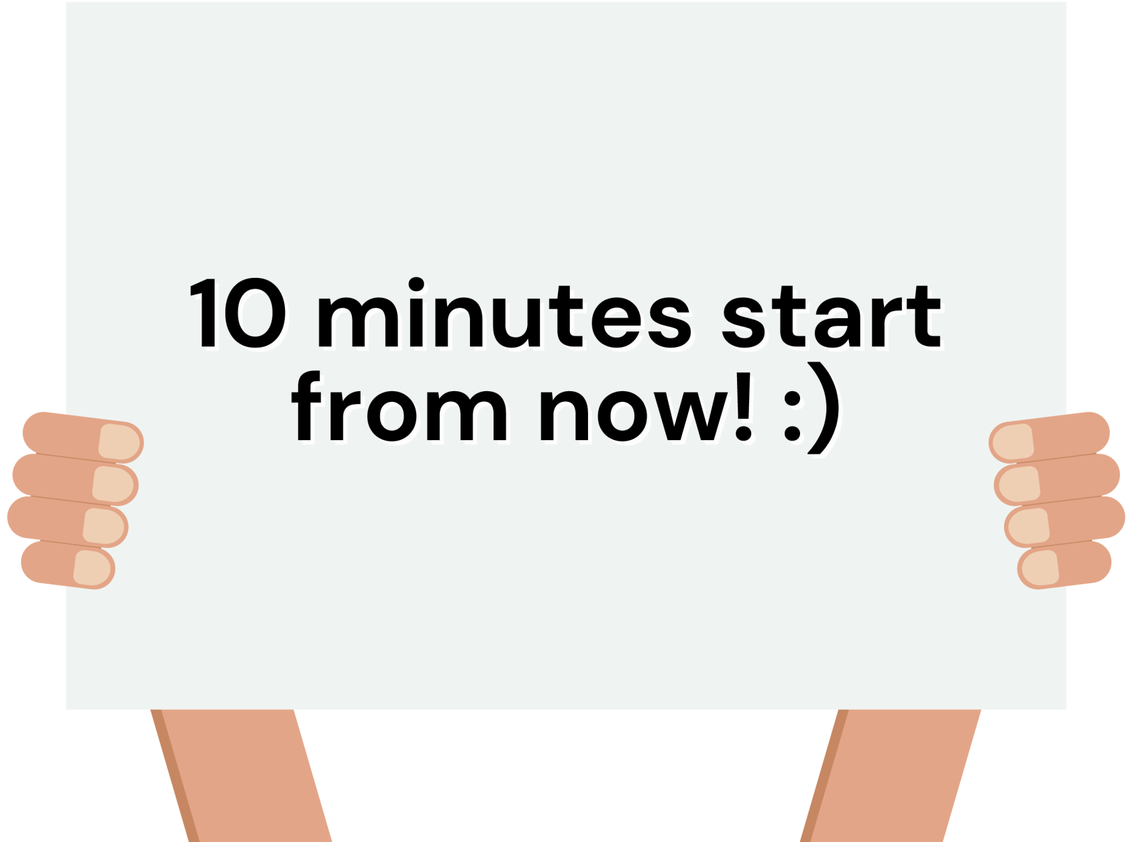


The questionnaire development process



source:
Hamed Taherdoost.DesigningaQuestionnaireforaResearchPaper:AComprehensiveGuideto Design andDevelopanEffectiveQuestionnaire.AsianJournalofManagerialScience,2022,11,pp.8 - 16.□10.51983/ajms-2022.11.1.3087□.□hal-03741836□

Hands-on activity



Introduction

Survey Questionnaire

Assessment of the Public's Knowledge and Attitude Toward Telemedicine Service(s) in Malaysia

Introduction

Survey Questionnaire

Assessment of the Public's Knowledge and Attitude Toward Telemedicine Service(s) in Malaysia

Refined version

ID respondent:

Maintaining data integrity while protecting the privacy of participants.

Survey Questionnaire

Assessment of the Public's Knowledge, Attitude and Practice of Telemedicine Service(s) in Malaysia

Missing information; added in for clarity to better reflect the contents of the survey

Introduction

The purpose of this study is to assess the ***knowledge and attitude toward telemedicine service(s) among adults (aged 18 and above) in Malaysia.*** *The questionnaire will take approximately 15-20 minutes. Your participation in this research study is* ***voluntary****. There are* ***no known risks*** *or discomforts associated with this study. Your responses will help us to understand and address any issues regarding telemedicine service(s) and thus hope to* ***improve our service*** *in the near future.*

Introduction

*The purpose of this study is to assess the **knowledge and attitude toward telemedicine service(s) among adults (aged 18 and above) in Malaysia.** The questionnaire will take approximately 15-20 minutes. Your participation in this research study is **voluntary**. There are **no known risks** or discomforts associated with this study. Your responses will help us to understand and address any issues regarding telemedicine service(s) and thus hope to **improve our service** in the near future.*

Refined version

Missing introduction and context; added in to improve understanding

*Telemedicine in Malaysia refers to the **provision of healthcare services remotely through digital platforms**, enabling patients to consult doctors, order medications, and manage health conditions without needing to visit healthcare facilities in person. It gained significant traction during the COVID-19 pandemic and offers services like virtual consultations, online medication delivery, mental health support, and chronic disease monitoring. Key benefits include improved accessibility, convenience, and cost-effectiveness, particularly for those in remote areas.*

*The purpose of this study is to assess the **knowledge, attitude, and practice** of telemedicine service(s) among **adults (aged 18 and above) in Malaysia.** The questionnaire will take approximately 15-20 minutes. Your participation in this research study is **voluntary**. There are **no known risks** or discomforts associated with this study. Your responses will help us to understand and address any issues regarding telemedicine service(s) and thus hope to **improve our service** in the near future.*

Missing information; added in for clarity to better reflect the contents of the survey

Missing information; added in for clarity and transparency, respondents more likely to provide accurate responses.

Introduction

This study has been registered with the National Medical Research Register (NMRR) and is approved by the Medical Research & Ethics Committee (MREC). Your responses will be kept ***confidential.*** *We strongly encourage you to* ***answer all questions*** *as far as possible. This survey has 4 pages in total. Please take a few moments to complete this survey. The return of this survey is your* ***consent*** *to participate in this research. Your cooperation is very much appreciated. Thank you very much.*

Introduction

*This study has been registered with the National Medical Research Register (NMRR) and is approved by the Medical Research & Ethics Committee (MREC). Your responses will be kept **confidential.** We strongly encourage you to **answer all questions** as far as possible. This survey has 4 pages in total. Please take a few moments to complete this survey. The return of this survey is your **consent** to participate in this research. Your cooperation is very much appreciated. Thank you very much.*

Refined version

*This study has been registered with the National Medical Research Register (NMRR) and is approved by the Medical Research & Ethics Committee (MREC). Your responses will be kept **confidential.** We strongly encourage you to **answer all questions** as far as possible. This survey has 4 pages in total. Please take a few moments to complete this survey. The return of this survey is your **consent** to participate in this research. Your cooperation is very much appreciated. Thank you very much.*

Inaccurate information; effect how respondents will answer the survey

PART A: KNOWLEDGE ABOUT TELEMEDICINE SERVICE(S)

This section is to find out how much you know about Telemedicine Service(s).

No	Survey Questions	Response options	
K1	Can telemedicine be used by healthcare professionals to provide healthcare services to patients remotely?	No (0)	Yes (1)
K2	Does the use of telemedicine require internet connectivity?	No (0)	Yes (1)

Part A

PART A: KNOWLEDGE ABOUT TELEMEDICINE SERVICE(S)

This section is to find out how much you know about Telemedicine Service(s).

No	Survey Questions	Response options	
K1	Can telemedicine be used by healthcare professionals to provide healthcare services to patients remotely?	No (0)	Yes (1)
K2	Does the use of telemedicine require internet connectivity?	No (0)	Yes (1)

Refined version

PART A: KNOWLEDGE ABOUT TELEMEDICINE SERVICE(S)

This section is to find out how much you know about Telemedicine Service(s). For every question below, please circle the nearest answer to your best.

Clear instruction; improve data quality

Ensure consistency across instrument

No	Survey Questions	Response options Please **circle** your answers.	
K1	Can telemedicine be used by healthcare professionals to provide healthcare services to patients remotely?	No (0)	Yes (1)
K2	Does the use of telemedicine require internet	No (0)	Yes (1)

Keep the survey respondent-friendly

Part A

K3	Could telemedicine be conducted using a mobile phone?	No (0)	Yes (1)
K4	Could telemedicine be used to facilitate follow-up of patients?	No (0)	Yes (1)
K5	Should written consent be sought from patients, before VC, one of the services under telemedicine, can be conducted?	No (0)	Yes (1)

Part A

K3	Could telemedicine be conducted using a mobile phone?	No (0)	Yes (1)
K4	Could telemedicine be used to facilitate follow-up of patients?	N	
K5	Should written consent be s … e services under telemedicin…	N	

Unfamiliar abbreviation(s) without a clear definition will effect the data quality as respondents may not understand the questions properly, leading to incorrect or incomplete answers

Knowledge may not exist; suggest to include 'Don't Know' and 'Refuse to Answer' in the response options

Refined version

K3	Could telemedicine be con…	No (0)	Yes (1)
K4	Could telemedicine be used to facilitate follow-up of patients?	No (0)	Yes (1)
K5	Should written consent be sought from patients, before VC, one of the services under telemedicine, can be conducted?	No (0)	Yes (1)

Note: *Virtual consultation (VC) refers to the process of conducting medical consultations remotely through digital platforms such as video calls, phone calls, or chat. Instead of visiting a healthcare provider in person, patients can discuss their symptoms, receive diagnoses, and get medical advice from doctors or specialists via an online or mobile interface.*

Part B

PART B: ATTITUDE TOWARD TELEMEDICINE SERVICE(S)

Please circle one answer for every question asked.

No	Questions	Response options							
A1	Telemedicine services are useful to manage my health problem and fit well with the way I like to receive healthcare.	Strongly disagree	1	2	3	4	5	6	7	Strongly agree
A2	I would consider telemedicine as they would reduce travelling time for patients.	Strongly disagree	1	2	3	4	5	6	7	Strongly agree

Part B

PART B: ATTITUDE TOWARD TELEMEDICINE SERVICE(S)

Please circle one answer for every question asked.

No	Questions	Response options								
A1	Telemedicine services are useful to manage my health problem and fit well with the way I like to receive healthcare.	Strongly disagree	1	2	3	4	5	6	7	Strongly agree
A2	I would consider telemedicine as they would reduce travelling time for patients.	Strongly disagree	1	2	3	4	5	6	7	Strongly agree

Refined version

PART B: ATTITUDE TOWARD TELEMEDICINE SERVICE(S)

We would like to know what you think of Telemedicine Service(s). Given response options from 1 to 7, please circle one answer for every question asked.

Clear introduction and instruction; improve data quality

No	Questions	Response options Please **circle** your answers.								
A1	Telemedicine services are useful to manage my health problem and fit well with the way I like to receive healthcare.	Strongly disagree	1	2	3	4	5	6	7	Strongly agree
A2	I would consider tele reduce travelling tim	Strongly disagree	1	2	3	4				

Double-barreled question causes confusion

Layout difficult to understand; affect data quality

Part B

A3	Telemedicine training should be given to all healthcare practitioners, medical students and patients.	Strongly disagree	1	2	3	4	5	6	7	Strongly agree
A4	Telemedicine limit effective patient-doctor communication.	Strongly disagree	1	2	3	4	5	6	7	Strongly agree
A5	Telemedicine is readily available and practiced in the hospital that I visit.	Strongly disagree	1	2	3	4	5	6	7	Strongly agree
A15	Given a scale from 1 to 7, how far is your intention to consider telemedicine as an alternative way of receiving healthcare in the future?	Very low intention	1	2	3	4	5	6	7	Very strong intention

Part B

A3	Telemedicine training should be given to all healthcare practitioners, medical students and patients.	Strongly disagree	1	2	3	4	5	6	7	Strongly agree
A4	Telemedicine limit effective patient-doctor communication.	Strongly disagree	1	2	3	4	5	6	7	Strongly agree
A5	Telemedicine is readily available and practiced in the hospital that I visit.	Strongly disagree	1	2	3	4	5	6	7	Strongly agree
A15	Given a scale from 1 to 7, how far is your intention to consider telemedicine as an alternative way of receiving healthcare in the future?	Very low intention	1	2	3	4	5	6	7	Very strong intention

Refined version

Question is not placed in the most appropriate section; effect the measurement and data quality

A3	Telemedicine training should be healthcare practitioners, medical patients.	disagree		2	3	4	5	6	7	Strongly agree
A4	Telemedicine limit effective patient-doctor communication.	Strongly disagree	1	2	3	4	5	6	7	Strongly agree
A5	Telemedicine is readily available and practiced in the hospital that I visit.	Strongly disagree	1	2	3	4	5	6	7	Strongly agree
A15	Given to con receiv far is your intention alternative way of ure?	Very low intention	1	2	3	4	5	6	7	Very strong intention

Wrong formatting @ numbering

PART C: PRACTICE OF TELEMEDICINE SERVICE(S)

We would like to know your practice of Telemedicine Service(s). Given response options from 1 to 7, please circle one answer for every question asked.

No	Questions	Response options							
P1	I have previously used telemedicine to receive healthcare services.	Strongly disagree	1	2	3	4	5	6	7	Strongly agree

Part C

PART C: PRACTICE OF TELEMEDICINE SERVICE(S)

We would like to know your practice of Telemedicine Service(s). Given response options from 1 to 7, please circle one answer for every question asked.

No	Questions	Response options								
P1	I have previously used telemedicine to receive healthcare services.	Strongly disagree	1	2	3	4	5	6	7	Strongly agree

Refined version

PART C: PRACTICE OF TELEMEDICINE SERVICE(S)

We would like to know your practice of Telemedicine Service(s). Given response options from 1 to 7, please circle one answer for every question asked.

No	Questions	Response options Please **circle** your answers.								
P1	I have previously used telemedicine to receive healthcare services.	Strongly disagree	1	2	3	4	5	6	7	Strongly agree

Clear instruction; improve data quality

Part C

P2	I am currently using telemedicine to receive healthcare services.	Strongly disagree	1	2	3	4	5	6	7	Strongly agree
P3	I have seen telemedicine practiced in hospitals/clinics.	Strongly disagree	1	2	3	4	5	6	7	Strongly agree
P4	Telemedicine will improve access to specialized health care for people who live in rural and suburban areas.	Strongly disagree	1	2	3	4	5	6	7	Strongly agree
P5	I will be able to claim when receiving healthcare through telemedicine via the insurance company.	Strongly disagree	1	2	3	4	5	6	7	Strongly agree

Part C

P2	I am currently using telemedicine to receive healthcare services.	Strongly disagree	1	2	3	4	5	6	7	Strongly agree
P3	I have seen telemedicine practiced in hospitals/clinics.	Strongly disagree	1	2	3	4	5	6	7	Strongly agree
P4	Telemedicine will improve access to specialized health care for people who live in rural and suburban areas.	Strongly disagree	1	2	3	4	5	6	7	Strongly agree
P5	I will be able to claim when receiving healthcare through telemedicine via the insurance company.	Strongly disagree	1	2	3	4	5	6	7	Strongly agree

Refined version

Question is not placed in the most appropriate section; effect the measurement and data quality

P2	I am currently usin healthcare services.	Strongly disagree	1	2	3	4	5	6	7	Strongly agree
P3	I have seen telemedicine practiced in hospitals/clinics.	Strongly disagree	1	2	3	4	5	6	7	Strongly agree
P4	Telemedicine will improve access to specialized health care for people who live in rural and suburban areas.	Strongly disagree	1	2	3	4	5	6	7	Strongly agree
P5	I will be able to claim when receiving healthcare through telemedicine via the insurance company.	Strongly disagree	1	2	3	4				

Layout difficult to understand; affect data quality

Part D

PART D: DEMOGRAPHIC (*Please tick (√) in the box that describes yourself and fill in the blank)*

D1. Gender: []1 Female []2 Male

D2. Age:
[]1 ≤17 years old
[]2 18-39 years old
[]3 40- 59years old
[]4 ≥60 years old

D3. Ethnic: []1 Malay []2 Chinese []3 Indian

D4. Personal monthly income: (Malaysia Ringgit)_____

Part D

PART D: DEMOGRAPHIC (*Please tick (√) in the box that describes yourself and fill in the blank)*

D1. Gender: []1 Female []2 Male

D2. Age:
[]1 ≤17 years old
[]2 18-39 years old
[]3 40- 59years old
[]4 ≥60 years old

D3. Ethnic: []1 Malay []2 Chinese []3 Indian

D4. Personal monthly income: (Malaysia Ringgit)____

Refined version

PART D: DEMOGRAPHIC (*Please tick (√) in the box that describes yourself and fill in the blank)*

D1. Gender: []1 Female []2 Male

D2. Age:
[]1 ≤17 years old
[]2 18-39 years old
[]3 40- 59years old
[]4 ≥60 years old

D3. Ethnic: []1 Malay []2 Chinese []3 Indian []4 Others, please specify:_____

D4. Personal monthly income: (Malaysia Ringgit)____

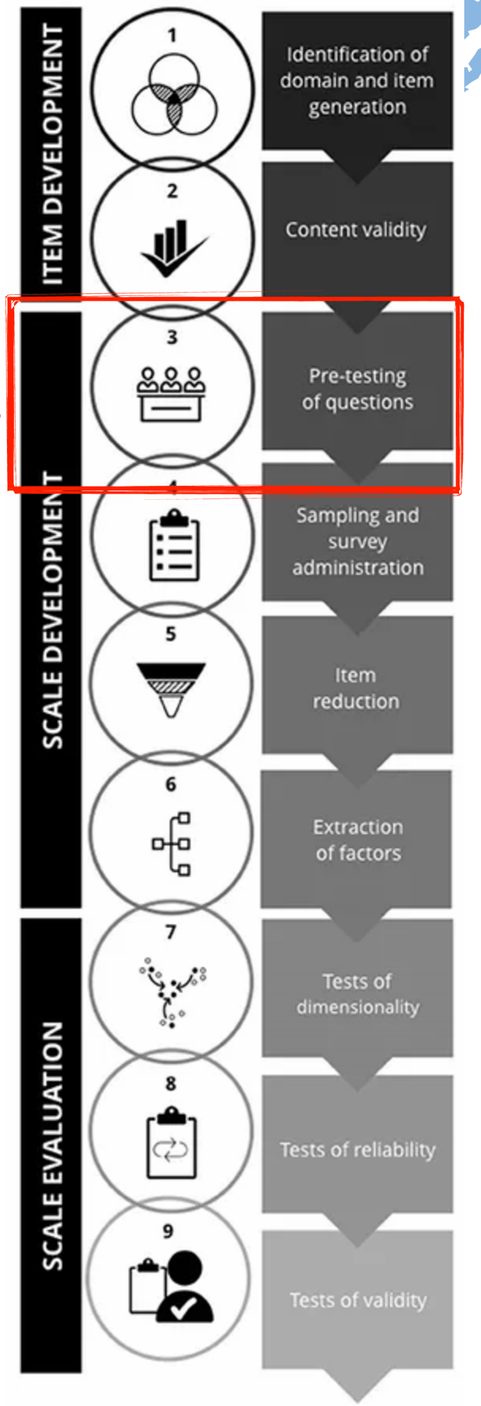
Skip pattern problem; missing instruction for looping question

Incomplete response options

Sensitive question; may effect the response and data quality

Important key points:

- Pre-testing occurs early in the questionnaire development process before full-scale data collection begins [1].
- There is **no gold standard** on how many rounds we should conduct the pre-testing - it's up to the researcher's judgment.
- **Balance** between the quality of the questionnaire and your daily workload.
- Most importantly, **clear objectives** and the right questions/items to answer the objectives before pre-testing the questionnaire.



Source:
[1] Boateng GO, Neilands TB, Frongillo EA, Melgar-Quiñonez HR and Young SL (2018) Best Practices for Developing and Validating Scales for Health, Social, and Behavioral Research: A Primer. Front. Public Health 6:149. doi: 10.3389/fpubh.2018.00149

Thank you

KEMENTERIAN KESIHATAN MALAYSIA
INSTITUT KESIHATAN NEGARA

Vision

To position NIH as a leading health research organisation towards enhancing the health and wellbeing of the nation.

Mission

- To conduct effective and high impact health related research, training and consultancy to improve quality of life.
- Govern and manage research in the country to address national health priorities.

INSTITUTE FOR HEALTH SYSTEMS RESEARCH

Mission

To provide high quality evidence and expertise in health policy and systems research.

Goal

Advancing nation's health through health policy and systems research.

Get in touch with us!

Dr Sarah Nurain Mohd Noh
sarahnurain.mn@moh.gov.my
Centre for Health Equity Research, IHSR





Pn Suhana Jawahir
suhana.j@moh.gov.my
Centre for Health Equity Research, IHSR

KONVENSYEN
QA KEBANGSAAN
KALI KE-12
"Compassionate Co-production"
8 – 10 OKTOBER 2024 | KLANA RESORT, SEREMBAN

KEMENTERIAN KESIHATAN MALAYSIA
INSTITUT PENYELIDIKAN SISTEM KESIHATAN

KEMENTERIAN KESIHATAN MALAYSIA
JABATAN KESIHATAN NEGERI SEMBILAN

MSQH

BORANG PENILAIAN SIMPOSIUM

SILA IMBAS KOD QR UNTUK BORANG PENILAIAN SIMPOSIUM

SCAN ME

Sembang Kualiti

ANDA TANYA HAKIM JAWAB

KONVENSYEN QA KEBANGSAAN
KALI KE-12
"Compassionate Co-production"
8 - 10 OKTOBER 2024 | KLANA RESORT, SEREMBAN

"Biar Jelas, Jangan Was-was"

10 Oktober 2024 | 9:00 - 10:00 pagi



Mr (Dr) Azmi Alias
Ketua Hakim
(Kategori Lisan)



Dr Cheah Wee Kooi
Ketua Hakim
(Kategori Poster)



Dr Nor Azila Mohd Isa
Ketua Hakim
(Kategori Video Seminit)



Dr Mohammad Helmee Mohamad Noor
Ketua Hakim Saringan
(Kategori Lisan)



Dr Azza Omar
Ketua Hakim Saringan
(Kategori Poster)

Moderator Anda:



Dr Amin Sah



Dr Tengku Norita

MSQH