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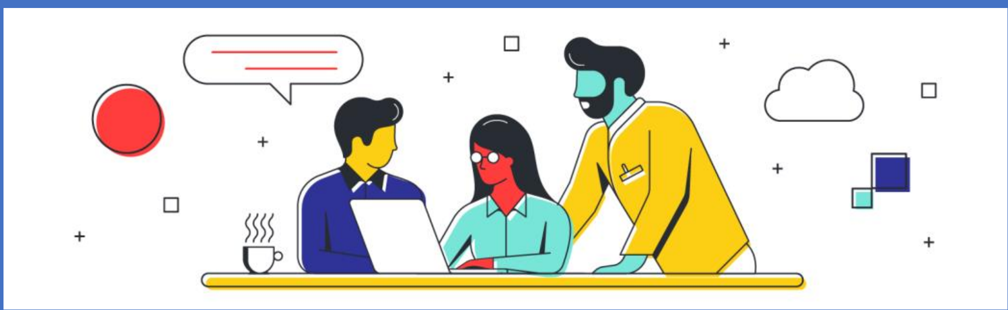
EVALUATE AND COMMUNICATE BUSINESS REQUIREMENTS



Jinwoong LEE

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Name of Student	Jinwoong LEE	ID	70415

Assessment – Research and Questioning

Contents

WEB SUPPORT PAGE: https://josephlee01.github.io/70415-t4-23/

Instructions:

This is an individual assessment. Answer all the questions on the document provided by your Trainer.

Duration:

Trainer will set the duration of the assessment.

Business Scenario

D&K Books Pty Ltd is a bookstore owned by Mr. Dean Kerr. The business occupies two levels of an office building connected by escalators and lifts. D&K Books employs approximately six sales staff, one operation manager, two administrative officers, a bookkeeper, and a marketing manager. They have an Ethernet network consisting of ten PCs (Intel I3 Desktop cloned), two switches, a router and three printers. They use the QuickBooks software to manage their entire business, including sales, inventory, ordering, accounts receivable, accounts payable, payroll and employee management. They also have two EFTPOS terminals one on each floor.

D&K Books has a Linux server that stores all of the data including the QuickBooks database. The server is backed up to tape regularly. They also have a website (hosted on an Australian ISP's server, dynamic and static pages using asp.net) on which customers can browse the product catalogue and view current specials. They also lease a telephone system from Live Telecoms. The PABX (phone system) consists of a main switchboard and five remote phones with three incoming lines and a message-on-hold queue system.

Task 1: Determine support areas

Identify information technology (HW and SW) and list the technology in use in D&K Books and consider the following:

- What sort of support does the technology require?
- Who is likely to provide this support?
- Does the support arrangement already exist?

Present your answer in a table such as the one below:

Technology	Description	Support Required	Provider	Support Already exists? (Yes/No)
QuickBooks Software	Manage entire business, including sales, inventory, ordering, accounts receivable, accounts payable, payroll and employee management.	Regular update	Software company	Yes
PC's	Connected with network	PC upgrade	PC Supplier	No
Server	Store all the data including the QuickBooks database	Regular backup	Network Supplier	Yes
EFTPOS	To get the payment	Stable service	Westpac Bank	Yes
Telephone system	Telecom in the office	Stable service	Live Telecom	Yes
Website	customers can browse the product catalogue and view current specials.	Update infomation	ISP provider Web developer	Yes

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Task 2: Identify stakeholders

Identify stakeholders related in D&K Books system

- Owner
- Employees
- Suppliers
- Customers
- Government

Task 3: Develop support procedures

1. Describe one positive and one negative experience you have had when seeking assistance from a telecommunications company, an ISP or a computer supplier. Your experience may be via telephone, email or even voice recognition.

   Positive experience – When I called to ISP company due to slow internet connection, they reset the internet signal. After that it works immediately.

   Negative experience – When I contacted network machine suppliers due to network connection failure, they couldn't find the problems on the phone. I asked the to visit and help to fix the problem, but they told me it will take around 2 weeks.

2. Using the experiences described above please answer the following questions.
   a. What support aspects were professional and/or unprofessional?
      Professional aspect- rapid response and solution
      Unprofessional aspect – lack of staff who can solve problems.
   b. How long did the support process take? 2 weeks
   c. Were the steps logical? Yes
   d. Did they solve your problem? Yes
   e. Was the call deflected to another area? No

Task 4: Assign Support Personnel

Classify the following into soft skills and technical skills. Your answer should take the form of a table shown below.

Skill	Soft skill	Technical skill
A knowledge of Linux		☑
The ability to work under pressure	☑	
The administration of Windows 2008 Server		☑
The ability to formulate network and IT policies	☑	
The ability to write network documentation	☑	
The ability to give presentations	☑	

Task 5: Short Answer Questions

1. Explain the relationship between data, information and knowledge.

   Data → Information → Knowledge

   In other words, data is the raw material that is used to create information, and information is the processed data that is used to create knowledge.

2. What is quantitative data and how can you use it.

   Quantitative data is information that can be counted or measured and given a numerical value.

   (e.g. age, income, sales figures, times of days, length, temperature)

   It can be used to describe facts and events, make decisions, and solve problems.

3. What is qualitative data and how can you use it.

   Qualitative data is information that cannot be counted or measured and is instead expressed in words, images, or symbols.

   It is often used to describe experiences, opinions, and beliefs. It is also used to explore complex issues that may not be easily quantifiable. Examples of qualitative data can include field notes from ethnographic research, interview transcripts, open-ended survey responses, and creative works such as poetry, paintings, and music.

4. Give an example of how quantitative and qualitative data can be used in conjunction with each other.

   *** Example: Understanding customer satisfaction**

   - Quantitative data: Customer satisfaction ratings, number of customer complaints, etc.

   - Qualitative data: Feedback from customers about their experiences with the product or service, reasons why customers are satisfied or not satisfied, etc.

5. What sort of methods could you use to determine client requirements for a website design and key information sources?

   Client interviews, Surveys, Focus groups, Card sorting, Usability testing, Competitive analysis, Industry research, Review of existing website

6. Give some examples of client requirements for a website design.

   - Visually appealing and consistent with brand identity
   - Use of white space and negative space
   - Easy-to-read fonts
   - Effective color palette
   - Mobile-friendly design

Task 6: Multiple Choice Questions

1) Generally, how many points should a rating scale have?
   a) Five
   b) Four
   c) Ten
   d) Somewhere from 4 to 11 points

Type of scale	Recommended number of points
Simple questions with a limited range of responses	5
More complex questions with a wider range of responses	7
Very precise measurements or situations with strong opinions	10

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2) What is the problem(s) with this set of response categories to the question "What is your current age?" ○ 1-5 ○ 5-10 ○ 10-20 ○ 20-30 ○ 30-40
   a) The categories are not mutually exclusive.
   b) The categories are not exhaustive
   c) Both a and b are problems
   d) There is no problem with the above set of response categories

- Use age ranges instead of specific ages. This will allow you to capture a broader group of people and avoid potential bias from specific age groups.
- Consider the purpose of your data collection.
If you are trying to understand the preferences of a particular age group, you may need to use more granular age ranges. For example, if you are surveying teenagers, you may want to use categories like 13-14, 15-16, and 17-18.
- Consider the target audience you are trying to reach. If you are surveying a general population, you may want to use broader age ranges. For example, you could use categories like 18-24, 25-34, 35-44, 45-54, 55-64, and 65+.

3) You should mix methods in a way that provides complementary strengths and no overlapping weaknesses. This is known as the fundamental principle of mixed research.
   a) True
   b) False
   reference: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5602001/

4) According to the text, questionnaires can address events and characteristics taking place when?
   a) In the past (retrospective questions)
   b) In the present (current time questions)
   c) In the future (prospective questions)
   d) All of the above

   - Past events: Questionnaires can be used to gather information about events that have already happened. For example, a questionnaire could be used to collect data about people's experiences with a natural disaster, their satisfaction with a product or service, or their attitudes towards a political issue.

   - Present characteristics: Questionnaires can also be used to collect data about people's current characteristics, such as their demographics, opinions, beliefs, and behaviors. This information can be used to understand the needs and preferences of a population, to evaluate the effectiveness of a program or intervention, or to make predictions about future behavior.

   - Future events: Questionnaires can also be used to collect data about people's expectations and plans for the future. This information can be used to forecast future demand for products or services, to identify potential risks or challenges, or to develop marketing campaigns.

5) Which of the following are principles of questionnaire construction?
   a) Consider using multiple methods when measuring abstract constructs
   b) Use multiple items to measure abstract constructs

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c) Avoid double-barrelled questions

d) All of the above

- Use a variety of question types, such as open-ended questions, closed-ended questions, Likert scale questions, and multiple-choice questions.
- Use visual aids, such as charts and graphs, to make the questionnaire more engaging.
- Use skip logic to skip questions that are not relevant to the respondent.
- Use a thank-you page at the end of the questionnaire to thank the respondent for their time.

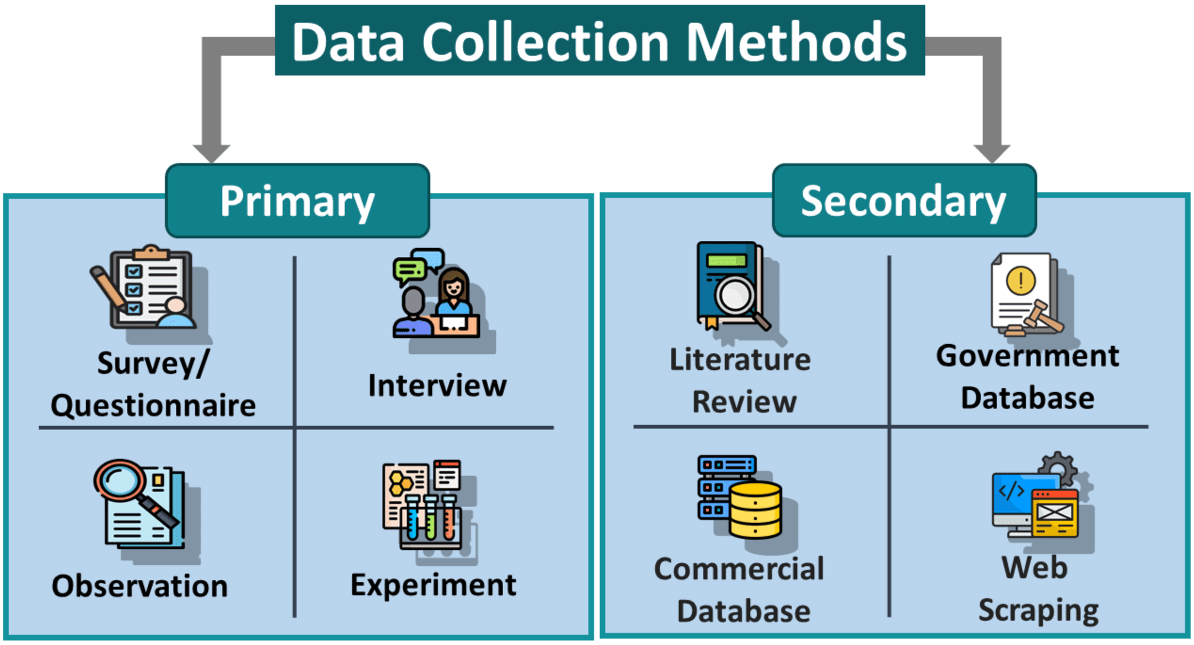
6) Which of these is not a method of data collection?

a) Questionnaires

b) Interviews

c) Experiments

d) Observations



7) Secondary/existing data may include which of the following?

a) Official documents

b) Personal documents

c) Archived research data

d) All of the above

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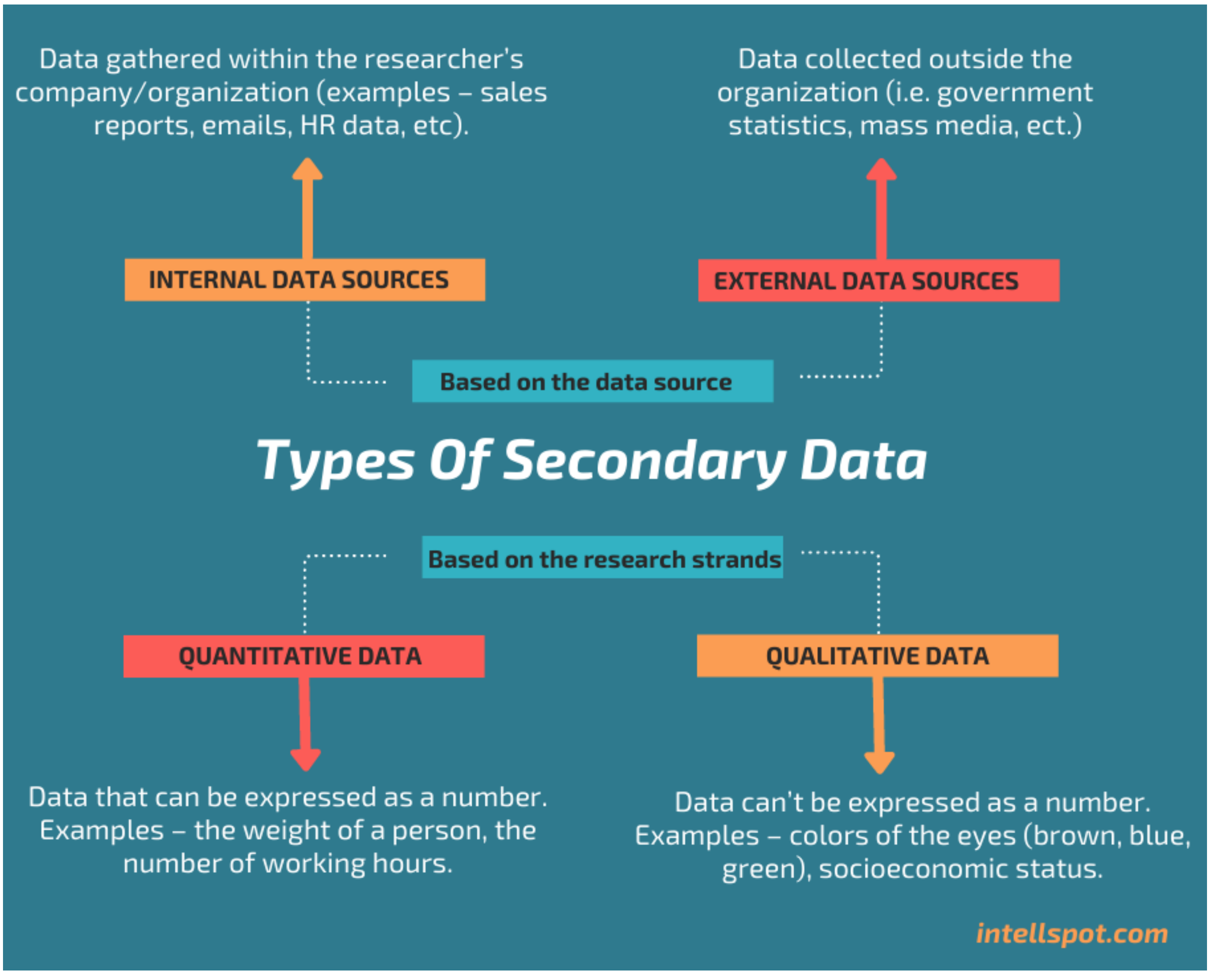


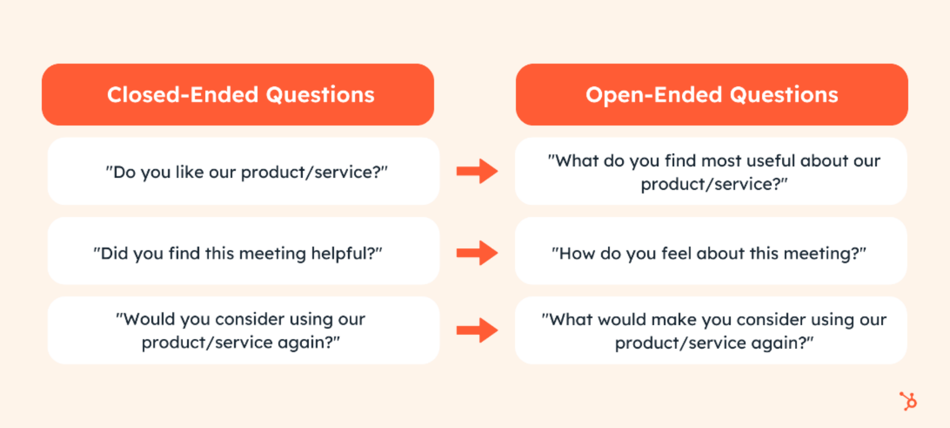
8) An item that directs participants to different follow-up questions depending on their response is called a ____________.

a) Response set
b) Probe
c) Semantic differential
d) Contingency question

Contingency questions are questions that are only to be answered by some subgroup(s) of respondents. For example, "If you own your home, how long have you owned it?" Contingency questions may have either closed-ended or open-ended response options.

9) Which of the following terms best describes data that were originally collected at an earlier time by a different person for a different purpose?
   a) Primary data
   b) Secondary data
   c) Experimental data
   d) Field notes

10) Researchers use both open-ended and closed-ended questions to collect data. Which of the following statements is true?
   a) Open-ended questions directly provide quantitative data based on the researcher's predetermined response categories
   b) Closed-ended questions provide quantitative data in the participant's own words
   c) Open-ended questions provide qualitative data in the participant's own words
   d) Closed-ended questions directly provide qualitative data in the participants' own words

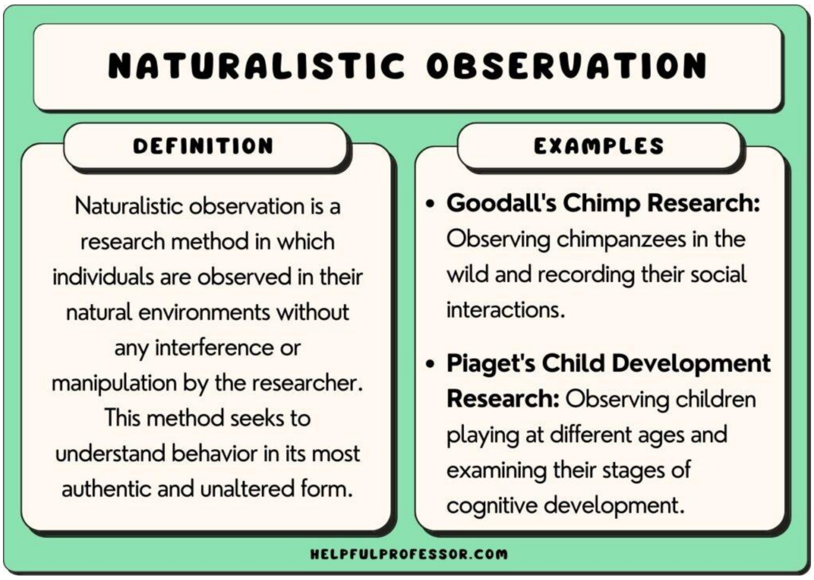


11) Open-ended questions provide primarily ______ data.
   a) Confirmatory data
   b) Qualitative data
   c) Predictive data
   d) None of the above

12) Which of the following is true concerning observation?
    a) It takes less time than self-report approaches
    b) It costs less money than self-report approaches
    c) It is often not possible to determine exactly why the people behave as they do
    d) All of the above

    Observation is a method of research that involves the careful and systematic study of phenomena in their natural context. It can be used to gather data on a wide range of topics, including human behavior, animal behavior, and natural phenomena.

13) Qualitative observation is usually done for exploratory purposes; it is also called ___________ observation.
    a) Structured
    b) Naturalistic
    c) Complete
    d) Probed



14) When constructing a questionnaire, it is important to do each of the following except ______.
    a) Use "leading" or "loaded" questions
    b) Use natural language
    c) Understand your research participants
    d) Pilot your test questionnaire

Reference: https://www.formassembly.com/blog/leading-loaded-questions/

15) Another name for a Likert Scale is a(n):
   a) Interview protocol
   b) Event sampling
   c) Summated rating scale
   d) Ranking

   A Likert scale is a rating scale used to measure opinions, attitudes, or behaviors. It consists of a statement or a question, followed by a series of five or seven answer statements. Respondents choose the option that best corresponds with how they feel about the statement or question.

16) Which of the following is not one of the six major methods of data collection that are used by educational researchers?
   a) Observation
   b) Interviews
   c) Questionnaires
   d) Checklists

Method	Description	Type of data
Surveys	Questionnaires that are used to collect data from a large group of people	Quantitative and qualitative
Interviews	In-depth conversations that are used to collect data from a small group of people	Qualitative
Observations	The act of watching and recording behavior	Quantitative and qualitative
Documents and records	Existing sources of information that can be used to collect data	Quantitative and qualitative
Focus groups	Small groups of people who are brought together to discuss a particular topic	Qualitative
Experiments	Controlled studies that are used to test a hypothesis	Quantitative

17) The type of interview in which the specific topics are decided in advance, but the sequence and wording can be modified during the interview is called:
   a) The interview guide approach
   b) The informal conversational interview
   c) A closed quantitative interview
   d) The standardized open-ended interview

An interview guide is a document that outlines the topics and questions that you plan to cover during an interview. It is typically composed of a series of open-ended and probing questions that are designed to elicit rich and detailed responses from participants.

18) Which one of the following in not a major method of data collection?
   a) Questionnaires
   b) Interviews
   c) Secondary data
   d) Focus groups
   e) All of the above are methods of data collection

Secondary data is existing data that has already been collected by someone else.

19) A question during an interview such as "Why do you feel that way?" is known as
    a) Probe
    b) Filter question
    c) Response
    d) Pilot

Web refer: https://uk.indeed.com/career-advice/interviewing/prompt-vs-probe-interview

20) A census taker often collects data through which of the following?
    a) Standardized tests
    b) Interviews
    c) Secondary data
    d) Observations

A census taker often collects data through a combination of methods, including:

Self-administered questionnaires: These are questionnaires that are mailed or distributed online to households. Respondents are asked to complete the questionnaires on their own and return them by mail or electronically.

In-person interviews: Census takers may also visit households in person to conduct interviews. This method is particularly useful for reaching households that may not have access to the internet or may be unable to complete the questionnaire on their own.

Phone interviews: In some cases, census takers may also conduct interviews by phone. This method is often used to reach households that are difficult to reach in person.

Administrative records: Census takers may also use administrative records, such as birth certificates, death certificates, and tax records, to collect data. This method is particularly useful for collecting data on individuals who may not be reached through other methods.

21) The researcher has secretly placed him or herself (as a member) in the group that is being studied. This researcher may be which of the following?
    a) A complete participant
    b) An observer-as-participant
    c) A participant-as-observer
    d) None of the above

Complete participation can be a valuable tool for researchers, but it is important to carefully consider the ethical implications of this approach. Researchers should be transparent about their purpose and obtain informed consent from participants whenever possible. They should also be mindful of the potential for harm and take steps to protect the privacy and confidentiality of participants.

22) Which of the following is not a major method of data collection?
    a) Questionnaires
    b) Focus groups
    c) Correlational method
    d) Secondary data

In research, the correlational method is a non-experimental technique used to investigate the relationship between two or more variables. It involves measuring the variables of interest and then using statistical techniques to determine the strength and direction of the relationship. Unlike experimental methods, the correlational method does not manipulate or control any variables. Instead, it simply observes and measures the variables as they occur naturally.

23) Which type of interview allows the questions to emerge from the immediate context or course of things?
   a) Interview guide approach
   b) Informal conversational interview
   c) Closed quantitative interview
   d) Standardized open-ended interview

Refer: http://www.qualres.org/HomeInfo-3631.html

24) When conducting an interview, asking "Anything else? What do you mean? Why do you feel that way?," etc, are all forms of:
   a) Contingency questions
   b) Probes
   c) Protocols
   d) Response categories

Probing interview questions are particularly useful in the following situations:
- When the interviewee is giving brief or ambiguous answers.
- When the interviewer wants to gain a deeper understanding of a particular topic.
- When the interviewer wants to identify areas for further exploration.

25) When constructing a questionnaire, there are 15 principles to which you should adhere. Which of the following is not one of those principles?
   a) Do not use "leading" or "loaded" questions
   b) Avoid double-barrelled questions
   c) Avoid double negatives
   d) Avoid using multiple items to measure a single construct

Web reference: https://www.qualtrics.com/blog/how-to-create-a-survey/

26) A customer-based Service Level Agreement structure includes:
   a) An SLA covering all Customer groups and all the services they use
   b) SLAs for each service that are Customer-focused and written in business language
   c) An SLA for each service type, covering all those Customer groups that use that Service
   d) An SLA with each individual Customer group, covering all of the services they use

Web reference: https://blog.hubspot.com/blog/tabid/6307/bid/34212/how-to-create-a-service-level-agreement-sla-for-better-sales-marketing-alignment.aspx

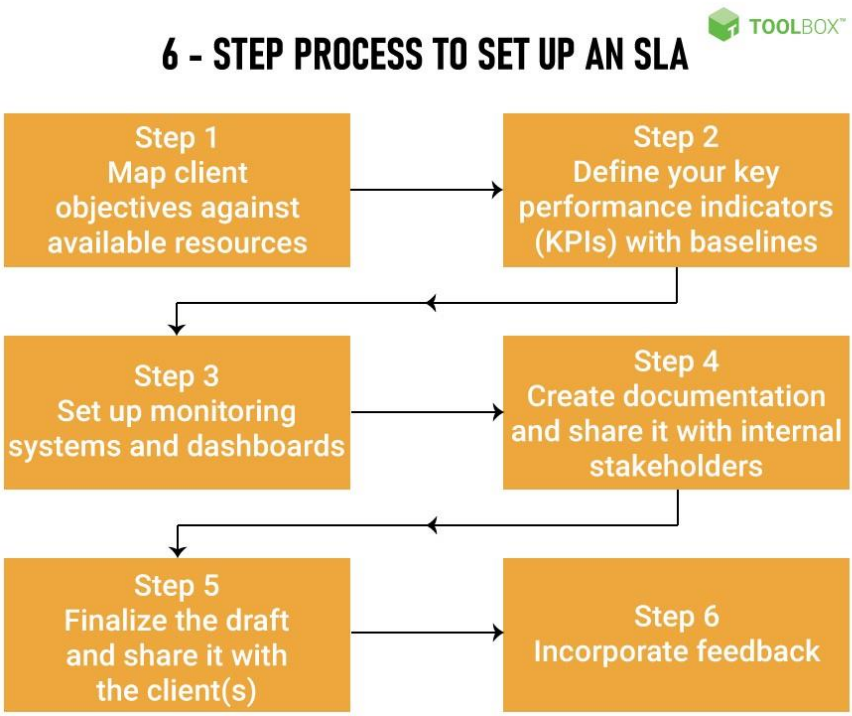
27) Which of the following best describes the goal of Service Level Management?
   a) To maintain and improve IT service quality in line with business requirements
   b) To provide IT services at the lowest possible cost by agreeing with Customers their minimum requirements for service availability and ensuring performance does not exceed these targets
   c) To provide the highest possible level of service to Customers and continuously improve on this through ensuring all services operate at maximum availability
   d) To ensure that IT delivers the same standard of service at the least cost

Web Reference: https://uk.indeed.com/career-advice/career-development/service-level-management

28) The process to implement SLAs comprises of the following activities in sequence:
   a) Draft SLAs, catalogue services, review underpinning contracts and OLAs, draft SLRs, negotiate, agree SLAs
   b) Draft SLAs, review underpinning contracts and OLAs, negotiate, catalogue services,
   c) Review underpinning contracts and OLAs, draft SLAs, catalogue services, negotiate, agree SLAs
   d) Catalogue services, establish SLRs, review underpinning contracts and OLAs, negotiate service levels, agree SLAs

29) Which of the following is an example of a service level agreement (SLA) between an information systems support unit and a research unit in the laboratories of a large company?
   a) The maximum response time to get the system operational should it fail.
   b) The minimum 'up-time'.
   c) The types of information that will be provided as standard.
   d) All of the above.

30) Some organisations bring a degree of formality to the internal customer concept by encouraging (or requiring) different parts of the operation to agree on:
   a) Internal service agreements
   b) Service level agreements
   c) Formal provision agreements
   d) Delivery agreements



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