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**Assessment – Research and Questioning**

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# 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 |  |  |  |  |
| PC’s |  |  |  |  |
| Server |  |  |  |  |
| EFTPOS |  |  |  |  |
| Telephone system |  |  |  |  |
| Website |  |  |  |  |

# Task 2: Identify stakeholders

Identify stakeholders related in D&K Books system

# 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.
2. Using the experiences described above please answer the following questions.
   1. What support aspects were professional and/or unprofessional?
   2. How long did the support process take?
   3. Were the steps logical?
   4. Did they solve your problem?
   5. Was the call deflected to another area?

# 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.
2. What is quantitative data and how can you use it.
3. What is qualitative data and how can you use it.
4. Give an example of how quantitative and qualitative data can be used in conjunction with each other
5. What sort of methods could you use to determine client requirements for a website design and key information sources?
6. Give some examples of client requirements for a website design

# Task 6: Multiple Choice Questions

1. Generally, how many points should a rating scale have?
   1. Five
   2. Four
   3. Ten
   4. Somewhere from 4 to 11 points

Reason:

The Likert scale is the most frequently used rating scale. Participants are provided with a scale and asked to select the most appropriate rating. Providing five to nine levels in the Likert scale is recommended. You may wish to provide anchors for every number, or anchor only the end points. You should also consider whether or not to allow a middle-position for users to settle on a neutral point. Some usability professionals prefer to remove the neutral point since they believe that people tend to gravitate towards neutral positions and they want to force respondents to come down on one side of the fence or the other. Be aware that if a participant truly does not have a preference one way or the other, forcing him/her to make a choice will introduce error into your results.  
Source :

https://www.sciencedirect.com/topics/computer-science/rating-scale

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

1. 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   
Reason:  
According to the fundamental principle of mixed research, the researcher should use a mixture or combination of methods that has complementary strengths and nonoverlapping weaknesses. This principle is important because it provides the researcher with a logic for mixing quantitative and qualitative research approaches.  
Source:

<https://www.sagepub.com/sites/default/files/upm-binaries/31987_Punch_Final_Proof.pdf>

1. According to the text, questionnaires can address events and characteristics taking place when?
   1. In the past (retrospective questions)
   2. In the present (current time questions)
   3. In the future (prospective questions)
   4. All of the above

Reason:

All of the option a, b and c are correct since every questionnaires could be used in many ways   
source: learner’s guide

1. Which of the following are principles of questionnaire construction?
   1. Consider using multiple methods when measuring abstract constructs
   2. Use multiple items to measure abstract constructs
   3. Avoid double-barrelled questions
   4. All of the above
   5. Only b and c

Reason:

Option b and c are the five basic of the principle of questionaire construction.

For option a, if we using multiple methods, the output will lead to another whole meaning.

Source:

https://norstatgroup.com/blog/five-basic-principles-for-writing-good-questionnaires

1. Which of these is not a method of data collection?
   1. Questionnaires
   2. Interviews
   3. Experiments
   4. Observations

Reason:

Experiment is not a method of data collection. Experiment is a procedure which can be repeated for indefinite times. It is also known as trial.

Source:

<https://www.toppr.com/ask/en-au/question/which-of-these-is-not-a-method-of-data-collection/>

1. Secondary/existing data may include which of the following?
   1. Official documents
   2. Personal documents
   3. Archived research data
   4. All of the above

Reason:

Data collected by someone else for some other purpose but being utilized by the investigator for another purpose is called secondary data. They are collected from published data by the state or central government, articles by local bodies, census data, magazines, periodicals, journals, publications by CSO, etc.

Source:

<https://www.toppr.com/ask/question/secondary-data-may-include-which-of-the-following/>

1. An item that directs participants to different follow-up questions depending on their response is called a \_\_\_\_\_\_\_\_\_\_\_\_.
   1. Response set
   2. Probe
   3. Semantic differential
   4. Contingency question

Reason :

Contingency question – A question that is answered only if the respondent gives a particular response to a previous question. This avoids asking questions of people that do not apply to them (for example, asking men if they have ever been pregnant).

Source:

<https://home.csulb.edu/~msaintg/ppa696/696qstin.htm>

1. 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

* 1. Secondary data
  2. Experimental data
  3. Field notes

Reason :

We should always remember that Secondary data is the term which describes data that we originally collected at an earlier time by a different person for a different purpose. The data is second-hand information since secondary data is not gathered by the user

Source :

<https://www.vedantu.com/question-answer/which-of-the-terms-best-describes-data-that-we-class-8-maths-cbse-60adcc87576d88681ac75984>

1. Researchers use both open-ended and closed-ended questions to collect data. Which of the following statements is true?
   1. Open-ended questions directly provide quantitative data based on the researcher’s predetermined response categories
   2. Closed-ended questions provide quantitative data in the participant’s own words
   3. Open-ended questions provide qualitative data in the participant’s own words
   4. Closed-ended questions directly provide qualitative data in the participants’ own words

Reason :

Open-ended questions are questions that do not provide participants with a predetermined set of answer choices, instead allowing the participants to provide responses in their own words. Open-ended questions are often used in qualitative research methods and exploratory studies. Qualitative studies that utilize open-ended questions allow researchers to take a holistic and comprehensive look at the issues being studied because open-ended responses permit respondents to provide more options and opinions, giving the data more diversity than would be possible with a closed-question or forced-choice survey measure. This entry expands on the many benefits of open-ended survey questions before examining the steps to writing well-constructed open-ended questions.

Source:

<https://methods.sagepub.com/reference/the-sage-encyclopedia-of-communication-research-methods/i14345.xml>

1. Open-ended questions provide primarily \_\_\_\_\_\_ data.
   1. Confirmatory data
   2. Qualitative data
   3. Predictive data
   4. None of the above

Reason

Open-ended questions are an integral part of Qualitative Market Research. This research technique depends heavily on open and subjective questions and answers on a given topic of discussion with room for further probing by the researcher, based on the answer given by the respondent. In a typical scenario, closed-ended questions are used to gather qualitative data from respondents.

Source:

<https://www.questionpro.com/blog/what-are-open-ended-questions/>

1. Which of the following is true concerning observation?
   1. It takes less time than self-report approaches
   2. It costs less money than self-report approaches
   3. It is often not possible to determine exactly why the people behave as they do
   4. All of the above

Reason :

Observation is way of gathering data by watching behavior, events, or noting physical characteristics in their natural setting. Observations can be overt(everyone knows they are being observed) or covert (no one knows they are being observed and the observer is concealed). The benefit of covert observation is that people are more likely to behave naturally if they do not know they are being observed. However, you will typically need to conduct overt observations because of ethical problems related to concealing your observation

Source

<https://www.cdc.gov/healthyyouth/evaluation/pdf/brief16.pdf>

1. Qualitative observation is usually done for exploratory purposes; it is also called \_\_\_\_\_\_\_\_\_\_\_ observation.
   1. Structured
   2. Naturalistic
   3. Complete
   4. Probed

Reason :

Qualitative observation enables the researcher to observe, interact and gain a rich picture of participants in their natural environment. This data collection method allows you to better understand the processes, culture, or people under study. Qualitative observations are usually used by social scientists, sociologists, and psychologists to gain a more comprehensive understanding of human and animal behavior.

Source: <https://delvetool.com/blog/qualobservation>

1. When constructing a questionnaire, it is important to do each of the following except \_\_\_\_\_\_.
   1. Use "leading" or "loaded" questions
   2. Use natural language
   3. Understand your research participants
   4. Pilot your test questionnaire

Reason:

Leading questions are intentionally or unintentionally framed queries that prompt a respondent to answer in a particular way. So, while these types of questions may result in respondents answering in the way the survey creator had hoped, it results in survey bias which impacts the validity of the survey

Source:

<https://www.surveylegend.com/survey-questions/leading-questions/#:~:text=Leading%20vs%20Loaded%20Questions,they%20may%20not%20agree%20with.>

1. Another name for a Likert Scale is a(n):
   1. Interview protocol
   2. Event sampling
   3. Summated rating scale
   4. Ranking

Reason:

Since after the questionnaire is completed, each item may be analyzed separately or in some cases item responses may be summed to create a score for a group of items. Hence, Likert scales are often called summative scales.

Source:

<https://en.wikipedia.org/wiki/Likert_scale#:~:text=Hence%2C%20Likert%20scales%20are%20often%20called%20summative%20scales.>

1. Which of the following is not one of the six major methods of data collection that are used by educational researchers?
   1. Observation
   2. Interviews
   3. Questionnaires
   4. Checklists

Reason :

These are 6 major methods of data collection used by educational researchers

* + 1. Interviews
    2. Questionnaires and surveys
    3. Observations
    4. Documents and records
    5. Focus groups
    6. Oral histories

Therefore option D is not one of them.

Source : <https://www.jotform.com/data-collection-methods/>

1. 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

* 1. The informal conversational interview
  2. A closed quantitative interview
  3. The standardized open-ended interview

Reason :

the guide approach is intended to ensure that the same general areas of information are collected from each interviewee; this provides more focus than the conversational approach, but still allows a degree of freedom and adaptability in getting information from the interviewee.

Source:

<https://managementhelp.org/businessresearch/interviews.htm>

1. Which one of the following in not a major method of data collection?
   1. Questionnaires
   2. Interviews
   3. Secondary data
   4. Focus groups
   5. All of the above are methods of data collection

Reason :

Since most of the major methods data collection based by quantity, therefore option b which focused on quality, are not in a major method of data collection

Source : <https://www.jotform.com/data-collection-methods/>

1. A question during an interview such as “Why do you feel that way?” is known as

a) Probe

* 1. Filter question
  2. Response
  3. Pilot

Reason:

Probing is asking follow-up questions when we do not fully understand a response, when answers are vague or ambiguous or when we want to obtain more specific or in-depth information

Source:

<https://fyi.extension.wisc.edu/programdevelopment/files/2016/04/Tipsheet34.pdf>

1. A census taker often collects data through which of the following?
   1. Standardized tests
   2. Interviews
   3. Secondary data
   4. Observations

Reason :

A census is a survey conducted on the full set of observation objects belonging to a given population or universe.

Source : <https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:Census>

1. 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

* 1. An observer-as-participant
  2. A participant-as-observer
  3. None of the above

Reason:

In this complete participant, the observer is fully engaged with participants. So, in the soccer study, the observer might join the team (assuming he/she has the necessary qualifications) and be involved in the team activities on and off the field

Source : <https://researchdesignreview.com/2017/10/19/the-five-observer-roles-in-ethnography/>

1. Which of the following is not a major method of data collection?
   1. Questionnaires
   2. Focus groups
   3. Correlational method
   4. Secondary data

Reason : same as question number 18, it’s not include in major method data collection since correlational methods are a form of research that include “quasi-experimental” designs such as survey research or naturalistic observations, in which different groups are compared, but cause and effect between variables cannot be determine.

Source: <https://www.alleydog.com/glossary/definition.php?term=Correlational+Methods#:~:text=Correlational%20Methods%20are%20a%20form,between%20variables%20cannot%20be%20determined.>

1. Which type of interview allows the questions to emerge from the immediate context or course of things?

a) Interview guide approach

* 1. Informal conversational interview
  2. Closed quantitative interview
  3. Standardized open-ended interview

Reason:

An Informational Interview (also known as an informational meeting, coffee chat, or more generically, networking) is a conversation in which a person seeks insights on a career path, an industry, a company and/or general career advice from someone with experience and knowledge in the areas of interest. Informational interviews are often casual and candid conversations where both parties are focused simply on acquiring and sharing knowledge

Source :

<https://en.wikipedia.org/wiki/Informational_interview>

1. When conducting an interview, asking "Anything else? What do you mean? Why do you feel that way?," etc, are all forms of:
   1. Contingency questions
   2. Probes
   3. Protocols
   4. Response categories

Answer:

Similar to question 19.

Probing is asking follow-up questions when we do not fully understand a response, when answers are vague or ambiguous or when we want to obtain more specific or in-depth information

Source:

<https://fyi.extension.wisc.edu/programdevelopment/files/2016/04/Tipsheet34.pdf>

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

Answer :

Option D are wrong, since multiple items are only used to measure abstract construct.

Source :

<https://www.sagepub.com/sites/default/files/upm-binaries/26101_7.pdf>

1. A customer-based Service Level Agreement structure includes:
   1. An SLA covering all Customer groups and all the services they use
   2. SLAs for each service that are Customer-focused and written in business language
   3. An SLA for each service type, covering all those Customer groups that use that Service
   4. An SLA with each individual Customer group, covering all of the services they use

Answer :

A Service Level Agreement (or SLA) is the part of a contract which defines exactly what services a service provider will provide and the required level or standard for those services. The SLA is generally part of an outsourcing or managed services agreement, or can be used in facilities management agreements and other agreements for the provision of services

Source:

<https://www.keystonelaw.com/keynotes/service-level-agreements>

1. Which of the following best describes the goal of Service Level Management?
   1. To maintain and improve IT service quality in line with business requirements
   2. 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
   3. To provide the highest possible level of service to Customers and continuously improve on this through ensuring all services operate at maximum availability
   4. To ensure that IT delivers the same standard of service at the least cost

Answer :

Service Level Management (SLM) aims to negotiate Service Level Agreements with the customers and to design services in accordance with the agreed service level targets. This ITIL process is also responsible for ensuring that all Operational Level Agreements and Underpinning Contracts are appropriate, and to monitor and report on service levels.

Source:

<https://wiki.en.it-processmaps.com/index.php/Service_Level_Management>

1. The process to implement SLAs comprises of the following activities in sequence:
   1. Draft SLAs, catalogue services, review underpinning contracts and OLAs, draft SLRs, negotiate, agree

SLAs

* 1. Draft SLAs, review underpinning contracts and OLAs, negotiate, catalogue services,
  2. Review underpinning contracts and OLAs, draft SLAs, catalogue services, negotiate, agree SLAs
  3. Catalogue services, establish SLRs, review underpinning contracts and OLAs, negotiate service levels, agree SLAs

Answer :

1. 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?
   1. The maximum response time to get the system operational should it fail.
   2. The minimum ‘up-time’.
   3. The types of information that will be provided as standard.
   4. All of the above.

1. 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

* 1. Service level agreements
  2. Formal provision agreements
  3. Delivery agreements

Answer :

A service-level agreement (SLA) defines the level of service expected by a customer from a supplier, laying out the metrics by which that service is measured, and the remedies or penalties, if any, should the agreed-on service levels not be achieved. Usually, SLAs are between companies and external suppliers, but they may also be between two departments within a company.

Source :

<https://www.cio.com/article/274740/outsourcing-sla-definitions-and-solutions.html>

# Search Index