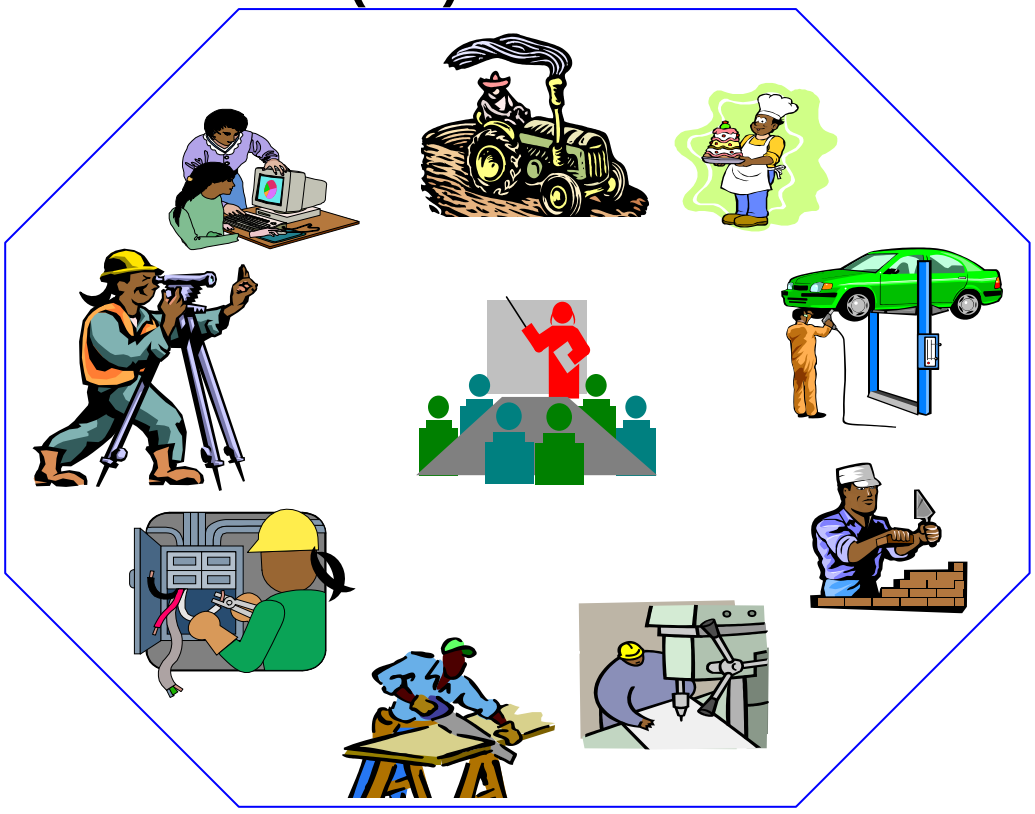
# Database Administration Level III

## Based on August, 2011 Version 3 Occupational standards(OS) and Curriculum



## Module Title: Gathering Data on Business Requirements

## LG CODE: EIS DBA3 M04 1220 LO (1-4) LG (13-16)

## TTLM Code: EIS DBA3 TTLM 1220 V1

December 2020

Bishoftu, Ethiopia

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**Instruction sheet**

This learning guide is developed to provide you the necessary information regarding the following content coverage and topics:

- Identifying information repositories
- Reviewing current organizational documentation
- Ensuring information gathering techniques
- Developing critical questions to elicit information

This guide will also assist you to attain the learning outcomes stated in the cover page. Specifically, upon completion of this learning guide, you will be able to:

- Identify information repositories
- Review current organizational documentation
- Ensure information gathering techniques
- Develop critical questions to elicit information

**Learning Instructions:**

Read the specific objectives of this Learning Guide.

1. Follow the instructions described below.
2. Read the information written in the “Information Sheets”. Try to understand what are being discussed. Ask your trainer for assistance if you have hard time understanding them.
3. Accomplish the “Self-checks” which are placed following all information sheets.
4. Ask from your trainer the key to correction (key answers) or you can request your trainer to correct your work. (You are to get the key answer only after you finished answering the Self-checks).
5. If you earned a satisfactory evaluation proceed to “Operation sheets
6. Perform “the Learning activity performance test” which is placed following “Operation sheets” ,
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8. If your performance is unsatisfactory, see your trainer for further instructions or go back to “Operation sheets”.

## Information Sheet 1: Identifying information repositories

### Introduction

**Information** is organized or classified data, which has some meaningful values for the receiver. Information is the processed data on which decisions and actions are based.

For the decision to be meaningful, the processed data must qualify for the following characteristics:-

- **Timely** Information should be available when required.
- **Accuracy** Information should be accurate.
- **Completeness** Information should be complete

### Source of Information

Information Source is a source of information for somebody, i.e. anything that might informs a person about something on provide knowledge to somebody. Information sources may be observations, people speeches, documents, pictures, organizations etc.

Types of information sources:

Information sources can be divided into two broad categories.

1. Documentary Sources
2. Non-Documentary Sources

- **Documentary sources:-** These are generally published or recorded documents of knowledge. Documentary sources may be as under:-

✓ **Primary Sources of Information:-** Primary sources of information are the first published records of original research and development or description of new application or new interpretation of an old theme or idea. There are original documents representing unfiltered original ideas.

These constitute the latest available information. A researcher producing new information can make it available to the particular community through the primary sources.

Primary sources are unorganized sources, which are rather difficult to use by them, the secondary sources helps us to use these.

Primary source is a term used in a number of disciplines to describe source material that is closest to the person, information, period or idea being studied.

Primary source (also called original source) is an artifact, a document, a recording, or other source of information that was created at the time under study. If created by a human source then a source with direct personal knowledge of the events being described. It serves as an original source of information about the topic

A primary source can be a person with direct knowledge of a situation or a document created by such a person. Primary sources are distinguished from secondary sources, which cite, comment on, or build upon primary sources.

Example-:

- ➢ Books
- ➢ Periodicals
- ➢ Conference Papers
- ➢ Research/ Thesis
- ➢ Research Reports
- ➢ Patents
- ➢ Standards
- ➢ Industrial and trade literature

✓ **Secondary Sources of Information**

Secondary sources of information are those which are either compiled from or refer to primary sources of information. The original information having been casually modified selected or reorganized so as to serve a definite purpose for group of users. Such sources contain information arranged and organized on the basis of some definite plan. These contain organized repackaged knowledge rather than new knowledge. Information given in primary sources is made available in a more convenient form. Due to their very nature, secondary sources are more easily and widely available than primary sources. These not only provide digested information but also serve as bibliographical key to primary sources of information. The primary sources are the first

to appear, these are followed by secondary sources. It is difficult to find information from primary sources directly.

**Types of Secondary Sources of Information:**

Divided into three types

- Index Type:
  - ✓ Index
  - ✓ Bibliography
  - ✓ Indexing periodical
  - ✓ Abstracting Periodicals
- Survey Type:
  - ✓ Review
  - ✓ Treatise/thesis
- Reference Type:
  - Encyclopedia
  - Dictionary
  - Hand book, Manual
  - Critical Tables

**Non-documentary sources:**

Non documentary sources of information form a substantial part of communication especially in science and technology. User's studies have underlined the importance of such sources. These sources provide information which other sources do not.

**Types:-** There are two kinds of sources:-

- **Formal Sources**
  - ✓ Research Organization
  - ✓ Societies
  - ✓ Industries
  - ✓ Govt. Dept.
  - ✓ Universities
  - ✓ Consultants

- **Informal Sources**

✓ Conversation with colleges

✓ Visitors

✓ Attendance at Professional Meetings.

## 1.1. Information Repository

In information a repository is a central place in which an aggregation of data is kept and maintained in an organized way, usually in computer storage. The term is from the Latin |"repositorium", a vessel or chamber in which things can be placed, and it can mean a place where things are collected. It is also known as a data library or data archive. This is a general term to refer to a data set isolated to be mined for data reporting and analysis. The data repository is a large database infrastructure several databases that collect, manage, and store data sets for data analysis, sharing and reporting.

Examples

● A **data warehouse i**s a large data repository that aggregates data usually from multiple sources or segments of a business, without the data being necessarily related.

● a **data** lake is a large data repository that stores unstructured data that is classified and tagged with metadata.

● Data **marts** are subsets of the data repository. These data marts are more targeted to what the data user needs and easier to use. Data marts also are more secure because they limit authorized users to isolated data sets. Those users cannot access all the data in the data repository.

| Self-Check 1 | Written Test |
|---|---|

**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page: If you answer 4 questions correctly your result will be satisfactory

1. When information is packaged or used for understanding or doing something, it is known as _____

   A. data
   B. knowledge
   C. information
   D. All

2) What is those found within the organisation; for example, annual reports, sales figures and employees.

   A. External sources
   B. Internal sources
   **C.** information
   D. All

3) Which one is sources outside the organisation such as statistical information, standards documentation, or research conducted by external organisations.

   A. External sources
   B. Internal sources
   **C.** information
   D. All

4) Which one is not Information Repository

   A) data warehouse
   B. Data lake
   C. Data marts
   D. None

5) Which of the following is not informal source

   A) Informal Sources
   B) Conversation with colleges
   C) Visitors
   D) Attendance at Professional Meetings
   E) None

***Note:*** **Satisfactory rating -100%**

You can ask you teacher for the copy of the correct answers.

Score = _____
Rating: _____

## Information Sheet 2: Reviewing current organizational documentation

### 2.1. Documents and information

An organisation stores a large number of documents such as policy documents, finance statements, annual reports and mission statements. These documents can provide valuable information when analysing user requirements. For example, mission statements may provide information regarding organisational goals. You may be required to review these documents to identify the kind of information they contain. The contents may be useful in the business requirements analysis

### 2.2. Review Documents

Reviewing documents is the process of searching, finding and extracting information from documents which have been created by authors.

An organisation stores a large number of documents such as policy documents, finance statements, annual reports and mission statements. These documents can provide valuable information when analysing user requirements.

**Example**

The mission statements may provide information regarding organisational goals. You may be required to review these documents to identify the kind of information they contain. The contents may be useful in the business requirements analysis.

Example of organization documents

- Reviewing Business forms
- Reviewing Policy documents
- Reviewing Financial statements
- Reviewing Performance reports
- Reviewing Annual reports

- ✓ **Business Form** A business document that contains some predefined data and may include some areas where additional data are to be filled in. An instance of a form is typically based on one database record.
- ✓ **Report** A business document that contains a passive document used only for reading and viewing. A report typically contains data from many unrelated records or transactions.
- ✓ **Policy document** is a formal document that is regarded as a legally binding document.
- ✓ **Financial Statement** (is a document reporting business financial performance and resources. It is a formal record of the financial activities of a business, person, or other entity.

  **Example**

  - ✓ A balance sheet, showing a business's assets, liability, and owner's equity or retained earnings.
  - ✓ An income statement, showing the sales and expenses of a business over a period of time.
  - ✓ A cash flow statement, showing the cash in and out of a business over a period of time.

- **Performance report** is a report on the performance of something. It is a statement that displays measurements of actual results of some person or entity's activity over some time period. Such reports also will contain performance indicators which measure the achievements of the organization and its programmers
- A**nnual report** is a comprehensive report on a company's activities throughout the preceding year. The contents of annual report provide information about how well the business is doing financially, upcoming changes projected for the next year, and the management staff of the company.
- **Research Reports** research report is a report (such as the technical background report that presents information gained largely from printed or online information sources or from other sources such as interviews or direct observation.

**Research Reports** research report is our name for that kind of report that presents original research data—no matter whether that data was generated in a laboratory or out in the "field." A secondary research report then would be a report (such as the technical background report) that presents information gained largely from printed or online information sources or from other sources such as interviews or direct observation

**Literature Reviews** A literature review summarizes what is known about a specific research topic, narrates the milestones of the research history, indicates where current knowledge conflicts, and discusses areas where there are still unknowns.

| Self-Check 2. | Written Test |
|---|---|

**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page: If you answer 2 questions correctly your assessment result will be satisfactory

1) _____ a large number of documents such as policy documents, finance statements, annual reports and mission statements.

A. organization stores
B. Reviewing documents
C. All
D. None

2) _____ is comprehensive report on a company's activities throughout the preceding year.

A) Literature Reviews
B) Research Reports
C) Annual report
D) Performance report
E) None

3) which one is a business asset

A) Literature Reviews
B) Performance report
C) Balance sheet
D) Reviewing documents
E) None

4) _____ A business document that contains some predefined data and may include some areas where additional data are to be filled

**A)** Balance sheet
**B)** ) Research Reports
**C)** Organization stores
**D)** Business Form

***Note:*** **Satisfactory rating 100%**

You can ask you teacher for the copy of the correct answers.

Score = _____
Rating: _____

## Information Sheet 3: Developing Critical Questions

### Introduction

A critical question is A general question and refining it to get relevant information might play out in a professional situation The answer of such questions what can a human services organization do to stop a continual turnover of staff?

### 3.1. Creating a critical question

Start with your personal narrative! Your personal narrative is a good place to start for questions about your chosen field of study that matter to you. “Will I be a good teacher?” or “What kinds of jobs will I be able to get with a degree in Psychology?” are questions of great personal importance; however, they are not questions of critical inquiry. At the same time, they can serve as a starting point for developing a good critical inquiry question

When completing a research survey, being interviewed for a job or working on a homework assignment, you might find yourself presented with a series of closed-ended or open-ended questions. Closed-ended questions are those which can be answered by a simple "yes" or "no," while open-ended questions are those which require more thought and more than a simple one-word answer.

- **Closed-Ended Questions**

Closed-ended questions are those which can be answered by a simple "yes" or "no," while open-ended questions are those which require more thought and more than a simple one-word answer.

Examples of closed-ended questions are:

- ✓ Are you feeling better today?
- ✓ May I use the bathroom?
- ✓ Is the prime rib a special tonight?

Closed-ended questions should not always be thought of as simple questions that anyone can quickly answer merely because they require a yes or no answer. Closed-ended questions can also be very complicated.

**For example**, "Is 1 in binary equal to 1 in counting numbers?" is a closed-ended question that not everyone would be able to quickly answer.

Closed-ended questions can be answered in only one word or with a short, specific piece of information. Closed-ended questions can also be used in the situations mentioned above, although they have the potential to end the conversation.

- Open-Ended Questions

Open-ended questions are ones that require more than one word answers. The answers could come in the form of a list, a few sentences or something longer such as a speech, paragraph or essay

Examples of open-ended questions:

- ✓ What were the most important wars fought in the history of the United States?
- ✓ What are you planning to buy today at the supermarket?
- ✓ How exactly did the fight between the two of you start?

Open-ended questions require an answer with more depth and a lengthier response. Open-ended questions are also helpful in finding out more about a person or a situation, whether it's during an interview, at a party, or when getting to know a new friend.

- **The question is open to research.**

This means you should be able to find some answers to the question by doing research. An understanding of the question can be obtained within the scope of the course. “Who

am I?” may be difficult to find an answer to through research, although you could adapt this question to make it open to research

- **The question will have multiple possible answers from multiple sources**

The question should not be answered by a simple yes/no. The question should not be answered by going to only one source of information. You should be looking for multiple perspectives.

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| Self-Check 3 | Written test |
|---|---|

**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page: If you answer 2 questions correctly your assessment result will be satisfactory

1) _____ questions are those which can be answered by a simple "yes" or "no,

A) Research.
**B)** Open-Ended Questions
C) critical question
D) Close-ended question
E) None

2) Example of close ended question is

A. What were the most important wars fought in the history of the United States?
B. What are you planning to buy today at the supermarket?
C. May I use the bathroom?
D. None

***Note:*** **Satisfactory rating 100%**

You can ask you teacher for the copy of the correct answers.

Score = _____
Rating: _____

## Information Sheet 4- Ensuring Information Gathering techniques

### 4.1. Data gathering

Data collection is the process of gathering and measuring information on variables of interest, in an established systematic fashion that enables one to answer stated research questions, test hypotheses, and evaluate outcomes. The data collection component of research is common to all fields of study including physical and social sciences, humanities, business, etc.

#### 4.1.1. Benefit of data collection

- Integrity of the Research
- Reduce the likelihood of errors
- Decision Making
- Save Cost and Time
- To support a need for a new idea, change and/or innovation

1.1 Methods of Data Collection

Data collection tools refer to the devices/instruments used to collect data, such as a paper questionnaire or computer-assisted interviewing system. Case Studies, Checklists, Interviews, Observation sometimes, and Surveys or Questionnaires are all tools used to collect data. There are many methods of collecting information these are:-

1. Interviews
2. Questionnaires
3. Survey
4. Observation

## Interviews

An **interview** is a planned meeting during which you obtain information from another person. The personal interview is often the preferred information gathering technique when developing business and user requirements. The interviewer can contextualise the response by observing body language. Body language is all of the non-verbal information being communicated by an individual. Part of body language is facial disclosure. Facial disclosure can sometimes enable you to understand how people feel by watching the expressions on their faces. Many common emotions have easily recognizable facial expressions.

### Determining the people to interview

### Establishing objectives for the interview

Need to be clear about what your objectives are for the interview. To do this, you should determine the general areas to be discussed, then list the facts that you want to gather.

Examples of goals can be found in the topic “Gather data through formal processes.”

### Developing the interview questions

Creating a list of questions helps you keep on track during the interview. It is appropriate to include open and closed questions during the body of the interview. Extended discussion on questions can be found in the topic “Gather data through formal processes.”

### Preparing for the interview

Preparation is the key to a successful interview. It is often easy to detect an unprepared interviewer. The interviewee is providing their valuable time, so you, as the interviewer, must be prepared. The interviewer should book and confirm their appointment times and venue. In addition, the goals or subject matter of the interview should be communicated to the interviewee.

**Conducting the interview**

An interview can be characterised as having three phases: the **opening**, the **body** and the **conclusion**.

During the interview **opening**, the interviewer should explain the reason for the interview, what the interviewer expects to get out of the interview, and motivate the interviewee to contribute to the interview.

The interview **body** represents the most time-consuming phase where you obtain the interviewee's responses to your questions and focus on your well-defined objectives.

The interview **conclusion** allows you to summarise your understanding of the data gathered during the interview.

**Documenting the interview**

It is important that you write down your notes into a format that allows you to understand the information gained at the interview.

Sometimes, inexperienced interviewers do not capture the interview in writing until sometime after the interview. In these cases, the interviewer may lose many of the valuable facts gained in the interview. Some interviewees request copies of the interview transcript. This can be helpful in prompting the interviewee to volunteer information inadvertently omitted in the interview.

**Evaluating the interview**

It is important to review your notes and transcript to identify any areas of problem, bias or errors. The review may prompt further questions that need to be answered.

**Advantage**

- In-depth information
- Freedom of flexibility
- Accurate data.

**Disadvantage**

- Time-consuming
- Expensive to collect

**Questionnaires**

A questionnaire is a research instrument consisting of a series of questions and other prompts for the purpose of gathering information from respondents. Although they are often designed for statistical analysis of the responses, this is not always the case. Questionnaires have advantages over some other types of surveys in that they are cheap, do not require as much effort from the questioner as verbal or telephone surveys, and often have standardized answers that make it simple to compile data. As a type of survey, questionnaires also have many of the same problems relating to question construction and wording that exist in other types of opinion polls.

Questionnaires are sometimes called surveys. A questionnaire involves questions written onto a form. The respondent provides their response in the form.

Two common formats for questionnaires are **free-format** and **fixed-format**. A single questionnaire often includes both formats.

- **Free-format questionnaires** offer the respondent greater latitude in their answer. A question is asked, and the respondent records the answer in the space provided after the question.
- **Fixed-format questionnaires** contain questions that require the selection of predefined responses from individuals.

**Example**

The QAT (Questionnaire authoring tool) is used to author the computer-based questionnaires. It is an online editor that allows a user to add, delete, or edit a question in a specific questionnaire of their choosing. When users open the QAT editor, they are presented with a view of the structure of an entire questionnaire.

**Advantage**

- Can be administered in large numbers and is cost-effective.
- It can be used to compare and contrast previous research to measure change.
- Easy to visualize and analyze.
- Questionnaires offer actionable data.
- Respondent identity is protected.
- Questionnaires can cover all areas of a topic.
- Relatively inexpensive.

**Disadvantage**

- Answers may be dishonest or the respondents lose interest midway.
- Questionnaires can't produce qualitative data.
- Questions might be left unanswered.
- Respondents may have a hidden agenda.
- Not all questions can be analyzed easily.

**Survey**

A survey is a research method used for collecting data from a predefined group of respondents to gain information and insights into various topics of interest. They can have multiple purposes, and researchers can conduct it in many ways depending on the methodology chosen and the study's goal.

The data is usually obtained through the use of standardized procedures to ensure that each respondent can answer the questions at a level playing field to avoid biased opinions that could influence the outcome of the research or study. The process involves asking people for information through a questionnaire, which can be either online or offline.

**Online survey**

An online survey is a set of structured questions that the respondent completes over the internet, generally through filling out a form. It is a more natural way to reach out to the respondents as it is less time consuming than the traditional way of gathering information through one to one interaction and less expensive. The data is collected and stored in a database, which is later evaluated by an expert in the field

**Good survey design**

A good surveying design has the following attributes

- **Define objective**: The survey would have no meaning if the aim and the result unplanned before deploying it.
- **The number of questions**: The number of questions used in a market research study is dependent on the end objective of the research. The length of the questionnaire has to be dictated only by the core data metrics that have to be collected.
- **Simple language**: One factor that can cause a high survey dropout rate is if the respondent finds the language difficult to understand. Therefore, it is imperative to use easily understandable text in the survey.
- **Question types**: There are several types of questions that can go into a survey. It is essential to use the question types that offer the most value to the research while being the easiest to understand and answer to a respondent.

  Using close-ended questions like multiple-choice questions help increase the survey response rate.

- **Consistent scales**: If you use rating scale questions, make sure that the scales are consistent throughout the research study.
- **Survey Logic**: Logic is one of the most critical aspects of the survey design. If the logic is flawed, respondents will not be able to continue further or the desired way. Logic has to be applied and tested to ensure that on selecting an option, only the next logical question shows up.

- **Observation:** This is a data collection method by which information on a phenomenon is gathered through observation. The nature of the observation could be accomplished either as a complete observer, an observer as a participant, a participant as an observer or as a complete participant. This method is a key base of formulating a hypothesis.

**Advantage**

- Easy to administer.
- There subsists a greater accuracy with results.
- It is a universally accepted practice.
- It diffuses the situation of an unwillingness of respondents to administer a report.
- It is appropriate for certain situations.

**Dis**adv**antage**

- Some phenomena aren't open to observation.
- It cannot be relied upon.
- Bias may arise.
- It is expensive to administer.
- Its validity cannot be predicted accurately.

| Self-Check 4 | Written Test |
|---|---|

**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. What of the following is NOT usually regarded as a step of the interview process?
   A. determine the people to interview
   B. develop interview questions
   C. close the interview
   D. All
   E. None
2. Which a question is asked, and the respondent records the answer in the space provided after the question.
   A. Free-format questionnaires
   B. Fixed-format questionnaires
   C. Close question
   D. All
   E. None
3. What interview is most common step that takes place during the interviewing process?
   A. conduct the interview B.Establishing objectives for the interview
   E. Developing the interview questions D. All E. None
4. _____is a technique that enables the analyst to view how processes and activities are being done in the context of the business.
   A. Workshops
   B. Observation
   C. Brainstorming
   D. All
   E. None

***Note:*** **Satisfactory rating 100%**

You can ask you teacher for the copy of the correct answers.

Score = _____
Rating: _____

| LG # 14 | LO2 Gather data through formal and informal processes |
|---|---|

**Instruction sheet**

This learning guide is developed to provide you the necessary information regarding the following content coverage and topics:

- Conducting information gathering workshops and interviews
- Reviewing reports and other data sources
- Confirming business-critical factors
- Analyzing group and individual responses

This guide will also assist you to attain the learning outcomes stated in the cover page. Specifically, upon completion of this learning guide, you will be able to:

- Conduct information gathering workshops and interviews
- Review reports and other data sources
- Confirm business-critical factors
- Analyze group individual responses

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| Information Sheet 1 | Conducting Information gathering |
|---|---|

## 1.1. Conducting Information gathering

Data collection is one of the most important stages in conducting a research. You can have the best research design in the world but if you cannot collect the required data you will be not be able to complete your project. Data collection is a very demanding job which needs thorough planning, hard work, patience, perseverance and more to be able to complete the task successfully.

Data collection starts with determining what kind of data required followed by the selection of a sample from a certain population. After that, you need to use a certain instrument to collect the data from the selected sample.

### 1.1.1. Types of Interviews

- **Informal, Conversational interview**

No predetermined questions are asked, in order to remain as open and adaptable as possible to the interviewee's nature and priorities; during the interview the interviewer 'goes with the flow'.

- **General interview guide approach**

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 the information from the interviewee.

- **Standardized, open - ended interview**

The same open-ended questions are asked to all interviewees; this approach facilitates faster interviews that can be more easily analysed and compared.

- **Closed, fixed - response interview**

All interviewees are asked the same questions and asked to choose answers from among the same set of alternatives. This format is useful for those not practiced in interviewing. This type of interview is also referred to as structured**.**

### 1.1.2. INTERVIEWS METHOD

Interviewing involves asking questions and getting answers from participants in a study. Interviewing has a variety of forms including: individual, face-to-face interviews and face-to-face group interviewing. The asking and answering of questions can be mediated by the telephone or other electronic devices (e.g. computers). Interviews can be

- Structured,
- Semi-structure or
- Unstructured.

- **Structured Interview**

Characteristics of the Structured Interview:

- ✓ The interviewer asks each respondent the same series of questions.
- ✓ The questions are created prior to the interview, and often have a limited set of response categories.
- ✓ There is generally little room for variation in responses and there are few open-ended questions included in the interview guide
- ✓ Questioning is standardized and the ordering and phrasing of the questions are kept consistent from interview to interview.
- ✓ The interviewer plays a neutral role and acts casual and friendly, but does not insert his or her opinion in the interview.
- ✓ Self-administered questionnaires are a type of structured interview.

- **Semi-structured Interviews**

Characteristics of Semi - structured Interviews

- ✓ The interviewer and respondents engage in a formal interview.
- ✓ The interviewer develops and uses an 'interview guide'. This is a list of questions and topics that need to be covered during the conversation, usually in a particular order.
- ✓ The interviewer follows the guide, but is able to follow topical trajectories in the conversation that may stray from the guide when s/he feels this is appropriate.

- **Unstructured Interviews**

  Characteristics of Unstructured Interviews

  - ✓ The interviewer and respondents engage in a formal interview in that they have a scheduled time to sit and speak with each other and both parties recognize this to be an interview.
  - ✓ The interviewer has a clear plan in mind regarding the focus and goal of the interview. This guides the discussion.
  - ✓ There is not a structured interview guide. Instead, the interviewer builds rapport with respondents, getting respondents to open-up and express themselves in their own way.
  - ✓ Questions tend to be open-ended and express little control over informants' responses. Ethnographic, in depth interviews are unstructured. Fontana and Frey (1994) identify three types of in depth, ethnographic unstructured interviews – oral history, creative interviews and

## 1.2. Preparation and Process of Conducting Interviews

In the activities, you will be required to convert open questions to closed questions and closed questions to open questions

- **Preparation**

**Role of the Interviewer**: The interviewer is really the 'jack-of-all-trades' in survey research. The interviewer's role is complex and multifaceted. It includes the following tasks – Locate and enlist cooperation of respondents: The interviewer has to find the respondent. In door to-door surveys, this means being able to locate specific addresses. Often, the interviewer has to work at the least desirable times (like immediately after dinner or on weekends) because that's when respondents are most readily available.

- **Motivate respondents to do good job**

If the interviewer does not take the work seriously, why would the respondent? The interviewer has to be motivated and has to be able to communicate that motivation to

the respondent. Often, this means that the interviewer has to be convinced of the importance of the research.

- **Observe quality of responses**

the interviewer is in the best position to judge the quality of the information that is being received. Even a verbatim transcript will not adequately convey how seriously the respondent took the task, or any gestures or body language that were evident.

- **Conduct a good interview**:

The interviewer has to conduct a good interview! Every interview has a life of its own. Some respondents are motivated and attentive, others are distracted or disinterested. The interviewer also has good or bad days. Assuring a consistently high-quality interview is a challenge that requires constant effort.

| Self-Check 1 | Written Test |
|---|---|

**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next:

1. page Which one is an example of a Problem Statement**:**
   A. The XXX Company cannot efficiently update records to their database.
   B. The XXX Company would like to increase sales through an e–commerce website.
   C. Tell me what happens when the work request form comes in?
   D. All
   E. None
2. What is the key word may used the Opportunity Statements
   A. Cannot, will not and unable to*.*
   B. would like to, leverage *and* evolve toward*.*
   C. All D. None
3. Which one is an example of a Opportunity Statement**:**
   A. The XXX Company cannot efficiently update records to their database.
   B. The XXX Company would like to increase sales through an e–commerce website.
   C. Tell me what happens when the work request form comes in?
   D. All E. None
4. What is the key word may used the problem Statements
   *A.* Cannot, will not and unable to*.*
   *B.* would like to, leverage and evolve toward*.*
   C. All
   D. None

***Note:*** **Satisfactory rating – 100%**

You can ask you teacher for the copy of the correct answers.

Score = _____
Rating: _____

## Information Sheet 2: Reports and data sources

### 2.1. REPORT

A report is a document that presents information in an organized format for a specific audience and purpose. Although summaries of reports may be delivered orally, complete reports are almost always in the form of written documents.

It is written for a clear purpose and to a particular audience. Specific information and evidence are presented, analyzed and applied to a particular problem or issue. The information is presented in a clearly The report brief may outline the purpose, audience and problem or issue that your report must address, together with any specific requirements for format or structure. This guide offers a general introduction to report writing; be sure also to take account of specific instructions provided by your department.

Reports are the backbone to the thinking process of the establishment and they are responsible, to a great extent, in evolving an efficient or inefficient work environment.

The significance of the reports includes:

- Reports present adequate information on various aspects of the business.
- All the skills and the knowledge of the professionals are communicated through reports.
- Reports help the top line in decision making.
- A rule and balanced report also helps in problem solving.
- Reports communicate the planning, policies and other matters regarding an organization to the masses. News reports play the role of ombudsman and levy checks and balances on the establishment.

### 2.1.1. **Writing Reports**

Report writing is an integral part of every employee's task. It comprises of the details of the tasks completed by him, goals met and the benefits brought in to the company. Thus, it is always a great idea to look into some report writing specimens to get the format right. Here are some tips that would also be of help.

- It is important that you determine the purpose of the report, such that you can draft it accordingly.
- Try to maintain an active tone such that it seems conversational to the readers.
- The length of a report really matters. It should neither be too long nor too short. You may also see interview report examples.
- A report should be clear and crisp. Unnecessary information should be avoided
- .Make sure to write the executive summary at the end of the report.
- Proofread and edit the report before sending it to the officials concerned. You may also see research report examples.

## Standard Report Structure Writing

### The structure of a report

Unless you have been given specific instructions, it's a good idea to follow the generally accepted standard structure. Alternatively, you may be given a 'house-style' to follow. This is often the case in employment, where organisations have evolved formats which suit their purpose. Either way, the information needs to be organised logically.

The standard structure has these sections, in this order:

- title page
- summary
- contents page
- introduction
- main body of text (with sections/chapters to suit your material)
- conclusion
- recommendations
- bibliography, if appropriate
- appendix/appendices

### Page layouts

- A report looks more professional if word-processed
- pay attention to headings/sub-headings, margins and spacing of sections
- avoid decorative fonts – even on the title page

### Standard report structure

If you have not been given other instructions, this is suitable for student reports. The main sections are listed below, in the right order:

**Title page**
Show report title, author's name, date, the person/organisation for whom the report has been written.
If the title is not set, create one which is brief, straightforward and factual.

If there is a limited readership – (a business report may be confidential) – it should say so on the title page.

**Summary**
Put the summary at the beginning of the report, to be easily accessible.

Write it as a precis, or abstract, of the whole report (including the conclusion and recommendations) – so it cannot be written until last.

Table 1. **Research Report**

## Internship Weekly Report Form

*For Instructions on completing your Weekly Report, please refer to instructions and examples under Lessons.*

| I. COVER PAGE INFORMATION | |
|---|---|
| Student's Name: Sally Smith | |
| WEEKLY REPORT # 2 | |
| From: March 5 To: March 12 *(specify the dates that the weekly report covers)* | |
| Today's Date: March 13, 2008 | |
| Name of Agency: Centre Region Parks and Recreation | |
| Number of Hours Worked this Week: 42 | |
| Cumulative # Hours to Date: 335 | |
| **II. WEEKLY SUMMARY** | |
| **Responsibilities** *(please type or print below):* | **% Time Spent** |
| *Assisted supervisor with registration for summer programs (greeted registrants, recorded information, answered questions)* | 25 |
| *Worked front desk answering phones referring inquiries to proper person and filing registration materials.* | 20 |
| *Supervised evening weightlifting class.* | 15 |
| *Attended CPR – First Aid Certification class* | 5 |
| *Updated database with addresses and telephone numbers of new members* | 10 |
| *Worked on developing slide show presentation for Pennsylvania Recreation and Park Society (PRPS) Conference.* | 10 |
| *Developed press kits for the upcoming arts and crafts festival* | 10 |
| *Met with supervisor regarding problems with coach and referee absenteeism* | 5 |
| | |
| | |
| **Total** | **100%** |

### 2.1.2. **Research Report**

Whether you have researched to write an article or to study about rural development, you must compile a proper research report which you can then submit to the higher officials. A lot of educational institutions also encourage their students to write a research report post a study tour. Here is how you can write such a report.

- ✓ Start with the introduction where you need to give a brief account of the topic.
- ✓ This should be followed by abstract description of the topic with all the samples and designs furnished. You may also see report writing formats.
- ✓ Next talk about the methodologies and techniques used by you to conduct the research.
- ✓ This should be followed by the result that you deduced from the research. You may also see technical reports.
- ✓ In the end, discuss the topic of offering information from every point of view. Conclude the report with a summary. You may also see formal reports.

### 2.1.3. **Benefits of Report Writing Format Templates**

These templates are necessary so that you do not face any submission and presentation problems after its completion. They will benefit you greatly because using them is the only way to write a good report. Without the right format and guidelines, the report will end up being shabby, with either too much content or too little. You may also see formal reports.

The viewer will not be able to read it and judge properly. When you use these templates, you will have a clear idea about what needs to be done and how it should be done. It will increase the chances of your report approval. You can also see shift report templates.

In all these templates we have maintained the important points to be followed like, presentation of information in an organized manner, usage of formal tone, format,

fonts, line spacing, etc. They can be used for any of your reports and you can download them easily. These templates are designed keeping in mind the report requirements. Check the format that suits best for your project and download it right away. You may also see report writing format examples

### 2.2. **Data source**

A data source is the location where data that is being used originates from. A data source may be the initial location where data is born or where physical information is first digitized, however even the most refined data may serve as a source, as long as another process accesses and utilizes it. Concretely, a data source may be a database, a flat file, live measurements from physical devices, scraped web data, or any of the myriad static and streaming data services which abound across the internet.

Databases remain the most common data sources, as the primary stores for data in ubiquitous relational database management systems (RDBMS). In this context, an important concept is the Data Source Name (DSN). The DSN is defined within destination databases or applications as a pointer to the actual data, whether it exists locally or is found on a remote server (and whether in a single physical location or virtualized.) The DSN is not necessarily the same as the relevant database name or file name, rather it is in an address or label used to easily reach the data at its source.

**Fig. 1 show data sources**

### 2.2.1. **Data source types**

- Machine data sources
- File data sources

- **Machine Data source**

Machine data sources have names defined by users, must reside on the machine that is ingesting data, and cannot be easily shared. Like other data sources, machine data sources provide all the information necessary to connect to data such as relevant software drivers and a driver manager, but users need only ever refer to the DSN as shorthand to invoke the connection or query the data.

- **File data sources**

File data sources contain all of the connection information inside a single, shareable, computer file (typically with a .dsn extension). Users do not decide which name is assigned to file data sources, as these sources are not registered to individual applications, systems, or users, and in fact do not have a DSN like that of machine data sources. Each file stores a connection string for a single data source.

- **The purpose of a data source**

Ultimately, data sources are intended to help users and applications connect to and move data to where it needs to be. They gather relevant technical information in one place and hide it so data consumers can focus on processing and identify how to best utilize their data.

- **How data sources work**

Data sources are used in a variety of ways. Data can be transported thanks to diverse network protocols, such as the well-known File Transfer Protocol (FTP) and Hypertext Transfer Protocol (HTTP), or any of the myriad Application (APIs) provided by websites, networked applications, and other services

Many platforms use data sources with FTP addresses to specify the location of data needed to be imported. For example, in the Adobe Analytics platform, a file data source is uploaded to a server using an FTP client, then a service utilizes this source to move and process the relevant data automatically

| Self-Check 2 | Written Test |
|---|---|

**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next Page

1. This following question is An example of _____

   "Do you put a job number on the work request form"

   A. Closed questions
   B. open questions
   C. All
   D. None

2. This following question is An example of _____

   "Tell me what you do about work requests."

   A. Closed questions
   B. open questions
   C. All
   D. None

3. One of the following is true about Goals

   A. Questions should be used to achieve well–defined goals
   B. Without goals, an analyst may lose focus and waste time
   C. Without goals, incomplete data may be gathered.
   D. All
   E. None

***Note:*** **Satisfactory rating 100%**

You can ask you teacher for the copy of the correct answers.

Score = _____
Rating: _____

## Information Sheet 3 : Confirming Business critical factors

The Critical Success Factor is basically the main system to achieve successes in a company, but to make that possible is necessary to put together the Key Success Factor that needs to be personalized depending on the department, each role has their own Key Success Area. These systems try to achieve success for the company based in standards and rules that need to be followed step by step to guarantee a better service for the clients or partners

The following are some o the measures of business critical success factors

- **Bias**

  From time to time, lobby groups bias questions in order to achieve a desired result. An example of an intentionally biased question may be the following:
  "Are you in favour of educational institutions requiring that all lecturers join a union, thus raising educational costs?"
  In this theoretical question, the information gatherer is not interested in getting an unbiased opinion; the question is loaded with non–neutral wording.

- **Sensitivity**

  The wording in a question may unduly influence responses. In the following questions, it is clear that political sensitivity can influence the results!

  Table 1: Political sensitivity

| | |
|---|---|
| 'Do you think the US was right or wrong in sending American troops to stop the Communist Invasion of South Korea?' (Opinion Research Centre, January 1951) | Wrong 36%<br>Right 55%<br>Don't Know 9% |
| 'Do you think the US made a mistake in deciding to defend Korea, or not?' (Gallup, January 1951) | Mistake 49%<br>Not a Mistake 38%<br>Don't Know 13% |

- **Plasticity**

Plasticity is the degree to which questions may be affected by the context and by previous questions asked. Many questions will be answered very differently by the same person according to the context of the questions, including where they are placed amongst other questions.

Table 2: Schuman and Presser's questions

| Order | Question | Result 1 | Result 2 |
|---|---|---|---|
| A | Do you think a Communist country like Russia should let American newspaper reporters come in and send back to America the news as they see it? | 82% Yes | 64% Yes |
| B | Do you think the United States should let Communist newspaper reporters from other countries come in and send back to their papers the news as they see it? | 75% Yes | 55% Yes |

Implement questions

One method of gathering information to identify functional requirements and constraints is by implementing a questionnaire.

There are many software programs and techniques that can be used to create questionnaires. The activities in the next sections demonstrate some simple techniques for implementing questionnaires.

**Functional requirements**

Once the problem has been identified, the next step is to do the following:

- Understand the problem, including the cause and effect
- Understand any constraints that may limit the solution.

Defining the functional requirements requires a significant proportion of information gathering, then an analysis of the information gathered.

Define functional requirements as:

"A *functional requirement* is a *function* or *feature* that must be included in an information system in order to satisfy the *business need* and be acceptable to the users."

Functional Requirements are actions, therefore a verb(s) should be included in the statement. In addition, functional requirements can be either mandatory or desirable. The use of ***Must*** or ***May*** will identify the strength of the requirement. Functional requirements may become the Acceptance Criteria at the end of the project - that is, your project success is measured on the attainment of the Functional Requirements.

e.g.

- The system must associate non–stock purchases of raw materials to a specified customer order.
- The system must associate design work as well as production work to customer special orders.
- The system may track the completion status of customer special orders.
- The system must provide a users' guide for products.
- The system must capture customer details online.
- The system may have password protection for a members' only section.

In the above functional requirements the word ***"system"*** can be replaced by a more meaningful descriptive word. Here are some examples:

- The website may have password protection for a members only section.

The database must retain customer details. Non–Functional requirements

define non–functional requirements:

*"A* non–functional requirement *is a* description *of the features, characteristics, and attributes of the system as well as any* constraints *that may limit the* boundaries *of the proposed solution"*

Some authors use the term "constraints" to identify non–functional requirements.

**Note:** Non–functional requirements are less important to the Business Requirements report – but highly important to the Technical Requirements report.

Table 3: shows Non–functional requirements

| **Requirement** | **Explanation** |
|---|---|

| type | |
|---|---|
| Performance | Performance requirements represent the performance the system is required to exhibit to meet the needs of users.<br>What is the maximum download time for web pages?<br>What is the acceptable throughput rate?<br>What is the required response time? |
| Information | Information requirements represent the information that is pertinent to the users in terms of content, timeliness, accuracy and format.<br>What are the necessary inputs and outputs? When must they happen?<br>Where is the required data to be stored?<br>How current must the information be?<br>What are the interfaces to the external systems? |
| Economy | Economy requirements represent the need for the system to reduce costs or increase profits.<br>What are the areas of the system where costs may be reduced?<br>How much cost should be reduced or profits should be increased?<br>What are the budgetary limits?<br>What is the timetable for development? |
| Control (and Security) | Control requirements represent the environment in which the system must operate, as well as the type and degree of security that must be provided.<br>Must access to the system or information be controlled?<br>What are the privacy requirements?<br>Does the criticality of the data necessitate the need for special handling (backups, off–site storage, etc) of the data? |
| Efficiency | Efficiency requirements represent the system's ability to produce outputs with minimal waste.<br>Are there duplicate steps in the process that must be eliminated?<br>Are there ways to reduce waste in the way the system uses its resources? |

| | |
|---|---|
| Service | Service requirements represent needs in order for the system to be reliable, flexible and expandable.<br>Who will use the system and where are they located?<br>Will there be different types of users?<br>What are the appropriate human factors?<br>What training devices and training materials are to be included in the system?<br>What training devices and training materials are to be developed and maintained separately from the system, such as stand–alone computer–based training (CBT) programs or databases?<br>What are the reliability/availability requirements?<br>How should the system be packaged and distributed?<br>What documentation is required? |

### 2.3. Verifying Response time

Response time, in the context of computer technology, is the elapsed time between an inquiry on a system and the response to that inquiry. Used as a measurement of system performance, response time may refer to service requests in a variety of technologies. Low response times may be critical to successful computing

Accounting for time demands made on a computer system can take many different forms. In computer networking, for instance, response times between two systems can be measured and viewed using such commands as ping or traceroute (“tracert” from the Windows command prompt). These diagnostic tools make use of the Internet Control Message Protocol (ICMP).

Many people use the terms "response time" and "latency" interchangeably. However, latency has more to do with the time delay between a particular cause and effect. Response time deals with the total time between a request for service and the fulfillment of that request. While some nuances exist in attempting to define the term, response time is generally a sum of the service time and the wait time required to process the request.

### 2.3. **Verifying scalability**

It is a performance measure for the execution of the software that refers to its ability to accommodate expanding traffic measures like number of users, activity of each user and so on In telecommunications and software engineering, scalability is a desirable property of system, network, process which indicates its ability to either handle growing amounts of work in a graceful manner or to be readily enlarged. For example, it can refer to the capacity of the system to increase total throughput under an increased load when resources are added.

Scalability is generally difficult to define and in some case we define the specific requirements for scalability on some important dimensions. It is a highly significant issue in database, routers and networking.

Scalable system is the system whose performance improves after adding hardware proportional to the capacity added is called scalable system. An algorithm, design, networking protocol, program or other system is sad to scale if it is suitably efficient and practical when applied to large situations. If the design fails when the quantity increases then it does not scale.

### 2.4. **Data traffic management**

**Data traffic**

Network providers can only process traffic data:

- to manage billing or traffic;
- to handle customer enquiries;
- to prevent or detect fraud.

Service providers can also process traffic data:

- to market electronic communication services (with consent);
- to provide a 'value-added service' (with consent).

**Customer information**

You must give the relevant subscriber or user information about the type of traffic data you will be processing for billing, marketing or value-added services, and how long you will keep it.

### 2.5. Validating security issues

The security and privacy-related challenges in cloud computing. There are numerous security issues for many technologies including networks, databases, operating systems, virtualization, resource scheduling, transaction management, load balancing, concurrency control and memory management.

Therefore, security issues for many of these systems and technologies are applicable to cloud computing. For example, the network that interconnects the systems in a cloud has to be secure. Furthermore, virtualization paradigm in cloud computing leads to several security concerns.

For example, mapping the virtual machines to the physical machines has to be carried out securely. Data security involves encrypting the data as well as ensuring that appropriate policies are enforced for data sharing. In addition, resource allocation and memory management algorithms have to be secure.

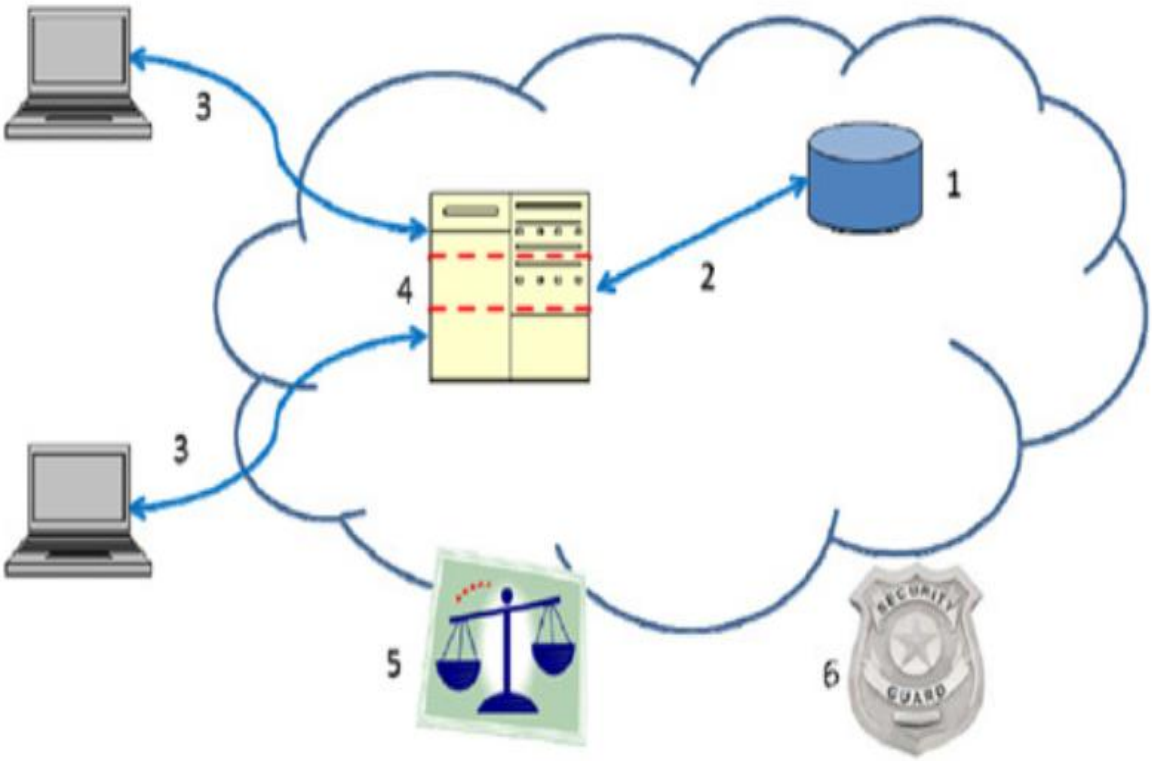


**Fig 1 Validating security issues**

| Self-Check 3 | Written Test |
|---|---|

**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. This following question is An example of _____

"Are you in favour of educational institutions requiring that all lecturers join a union, thus raising educational costs?"

A. Bias

B. Sensitivity

C. Plasticity

D. All

E. None

2. One of the following is true about plasticity

A. The wording in a question may unduly influence responses.

B. It is the degree to which questions may be affected by the context and by previous questions asked.

C. From time to time, lobby groups bias questions in order to achieve a desired result.

D. All

E. None

3. This following question is an example of _____

"Do you the ink the US was right or wrong in sending American troops to stop the Communist Invasion of South Korea ?'"

A. Bias B. Sensitivity C. Plasticity D. All E. None

| LG #15 | LO3 Ensure analysis is accurate and complete |
|---|---|

**Instruction sheet**

This learning guide is developed to provide you the necessary information regarding the following content coverage and topics:

- Analyzing and evaluating information gathered
- Gathering document conflicts in information
- Resolving conflicts in information or points of view with stakeholder**s**

This guide will also assist you to attain the learning outcomes stated in the cover page. Specifically, upon completion of this learning guide, you will be able to:

- Analyze and evaluate information gathered
- Gather document conflicts in information
- Resolve conflicts in information or points of view with stakeholder**s**

**Learning Instructions:**

Read the specific objectives of this Learning Guide.

1. Follow the instructions described below.
2. Read the information written in the “Information Sheets”. Try to understand what are being discussed. Ask your trainer for assistance if you have hard time understanding them.
3. Accomplish the “Self-checks” which are placed following all information sheets.
4. Ask from your trainer the key to correction (key answers) or you can request your trainer to correct your work. (You are to get the key answer only after you finished answering the Self-checks).
5. If you earned a satisfactory evaluation proceed to “Operation sheets
6. Perform “the Learning activity performance test” which is placed following “Operation sheets” ,
7. If your performance is satisfactory proceed to the next learning guide,
8. If your performance is unsatisfactory, see your trainer for further instructions or go back to “Operation sheets”.

**Information Sheet 1: Analyse and evaluate accurate information**

## 1.1. Analyse and evaluate accurate information

You should already know about identifying key information sources and gathering data through formal processes. This resource will help you to ensure analysis is accurate and complete within an information technology environment.

In this topic you will learn how to:

- analyse and evaluate information gathered for accuracy and consistency
- document conflicts in information gathered
- resolve conflicts in information or points of view with stakeholders

When to Analyze

Broadly speaking, you will analyse data as you collect it and/or once it has been collected.

Analyzing when collecting data

During an interview or workshop, you may be collecting and analysing data at the same time. Often you ask a question that prompts a second or third question. In this situation, you are attempting to clarify or classify the initial response received. The follow-up questions are usually either probing questions or classification questions.

Workshops typically involve data collection and analysis in real time.

Analysing data already collected

Data collected from several interviews and/or data collected from questionnaires need to be aggregated and collated into meaningful information. The analysis technique involves identifying similarities and disparities between data.

## Organizing and Summarizing

Once you have classified data into meaningful categories, it should be documented in tables and summarised in a paragraph. Often data in tables can be visually represented through the use of charts. You need to carefully select the type of chart to match your data.

**Example**

In this example, the survey data from Opinion Research Centre and Gallup has been classified and collated in an attempt to better represent the opinions of US citizens.

Table 1: Political sensitivity

| | |
|---|---|
| **'Do you think the US was right or wrong in sending American troops to stop the Communist Invasion of South Korea?** (Opinion Research Centre, January 1951) | Wrong 36%<br>Right 55%<br>Don't Know 9% |
| **'Do** you think the US made a mistake in deciding to defend Korea, or not?' (Gallup, January 1951) | Mistake 49%<br>Not a Mistake 38%<br>Don't Know 13% |

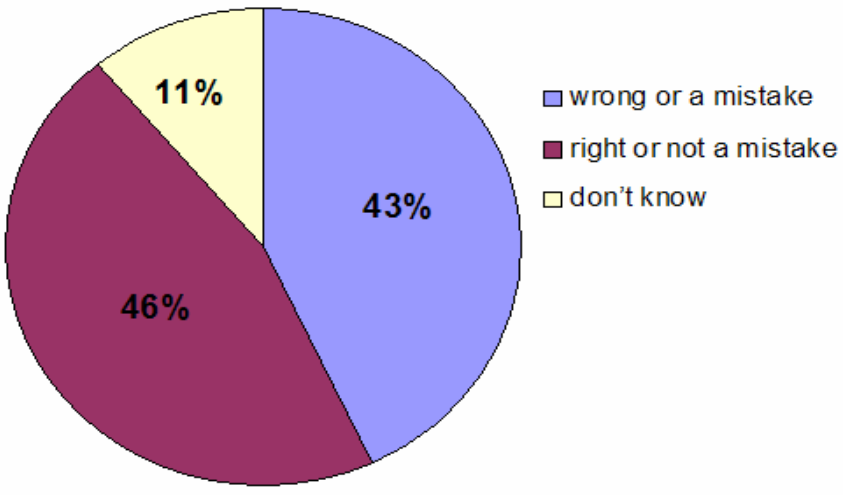


Fig. 2 the figures presented are the average of the two surveys.

Generally, **42.5%** of the population believe that it was **wrong** or a **mistake** to defend Korea. **46.5%** of the population believe it was **right** or **not a mistake** to defend Korea. And **11%** of the population **did not know** if it was right or wrong to defend Korea.

The results can be supported with a **pie chart**.

| Self-Check 1: | Written Test |
|---|---|

Name: _____ Date: _____

**Directions:** Answer all the questions listed below. Use the Answer sheet provided in the next page:

1. Which analyzing is “During an interview or workshop, you may be collecting and analysing data at the same time.”

A. Analyzing data already collected
B. Analyzing when collecting data
C. Organizing and Summarizing
D. All
E. None

2. Which analyzing is “Data collected from several interviews and/or data collected from questionnaires need to be aggregated and collated into meaningful information’.

A. Analyzing data already collected C. Analyzing when collecting data
B. Organizing and Summarizing D. All E. None

3. Which analyzing is “Once you have classified data into meaningful categories, it should be documented in tables and summarised in a paragraph.”

A. Analyzing data already collected
B. Analyzing when collecting data
C. Organizing and Summarizing
D. All E. None

***Note:*** **Satisfactory rating 100%**

You can ask you teacher for the copy of the correct answers.

Score = _____
Rating: _____

| Information Sheet 2 : | Gathering document conflicts in information |
|---|---|

## 2.1. Prioritizing requirements

Once you have classified data into categories, you have completed the first stage of analysis. We are interested in business requirements; therefore, the output from the first stage of analysis should be a list of business requirements (or functional requirements). The next stage is to rank the importance of each requirement. Consider a website, for example. Are each of the requirements below equal in importance?

**The system must**

- conduct transactions over the Internet
- display products on screen
- provide an animation of the production process
- display a privacy policy
- link Internet sales to the inventory system
- display a returns policy
- enable a "contact us" facility
- enable customers to check delivery and production status
- provide "about us" information
- display customer satisfaction testimonies
- provide a user's guide for products
- capture customer details online
- have password protection for a "members only" section
- display correct pricing - especially for customers with discounts
- describe products
- accept multiple payment methods.

You may have noticed that some requirements are dependent on others. For example, as soon as you capture customer details of any kind, you must have a privacy policy - this is a requirement under Australian law (with a few exceptions). You cannot display delivery and production status unless you enable customers to key their details into the system.

Given the dependencies within the requirements list, you should order the list for importance. But your ranking is just that - ***your*** ranking! You also need to establish the organisation's ranking of importance. The easiest way to receive feedback on the importance of business requirements is to present the key stakeholders with a list of requirements and ask them to rank the list by importance.

A little caution needs to be taken when collating and analysing the results of the ranked list. You need to consider who responded to the request and their importance within the organisation. For example, if the distribution list included five from sales and marketing yet only one from finance, the results may skew toward sales. As another example, the business owner may want their response to be weighted three times the strength of their management team. The examples above could be extreme, but it is prudent to discuss the distribution list and respondents' relative weighting with the project sponsor.

The **absolute ranking** is important, but **relative ranking** is also important. To use the example above, where there are 16 items listed, it should not be inferred that the item on the top of the list is 16 times more important than the item on the bottom of the list. Perhaps the item on the bottom of the list is only 50% less important. For this reason, a **relative importance** should be allocated to the requirement. A scale of 5-10 is frequently used when allocating the relevant importance of a business requirement. The reason for a relative scale becomes apparent in the next section: "Capability Analysis".

**Considering available resources**

Once you have ranked and rated the requirements by importance, you have completed the second analysis stage**.** By now you should have a list of business requirements (functional requirements), and you should know how important they are to the organisation.

*Question:*
*Should we implement all of them?*
*Answer:*
*"All things are possible given enough time and money."*
The answer to these questions requires the application of **the** third stage of analysis: Capability Analysis.

Capability analysis

In order to estimate the ease of realisation, you need to know the following:

- your capability
- the capability of your client
- the capability of your organisation
- the capability of any other organisations that you may incorporate into the project
- the capability of the tools that will be used to develop the solution for the client

Often a specialist or project manager who has experience in the field will rate the ease of realisation for a given business requirement. A simple method of applying capability to business requirements is to simply rate the ease of realisation between 5 and 10, where 10 is the easiest and 5 is the hardest. Once you have the ease of implementation, multiply it by the relative importance of the requirement.

**Summarizing business requirements**

By now, you should have a list of requirements that has been ordered by importance and ease of realization. The final stage is to estimate how many of the requirements can be implemented given the available time and money. Again, there are various techniques to establish the boundaries, but put simply, you need to draw a line through the requirements list and identify what you can achieve and what you cannot achieve. The requirements that you can achieve become mandatory functional requirements and retain the verb **"**MUST***".*** The requirements that you cannot achieve become optional or desirable functional requirements and the verb "must" changes to **"**MAY". For example:

- The system ***must*** display products on screen.
- The system ***may*** enable customers to check delivery and production status.

| Self-Check 2 | Priority check |
|---|---|

**DIRECTION: Order following in accordance with their priorities**

**ORDER OF PRIORITY**

1) describe products
2) capture customer details online
3) enable a "contact us" facility
4) display products on screen
5) accept multiple payment methods
6) display a privacy policy

**Answer sheet**

1_____
2_____
3_____
4_____
5_____
6_____

**Information Sheet 3: Resolving conflicts in information or point of views**

## 3.1. CONFLICT

A conflict is: 'a process which begins when one party perceives that another has frustrated, or is about to frustrate, some concern of his'

When we consider the means by which information affects efforts to overcome organizational conflicts, we must use such techniques as the extrapolation of trends, prediction of changes, control by weak signals, selection of central strategic positions and the grading of strategic tasks.

It is thus evident that the role of information in strategies of conflict resolution is confined to the maximum focus on opportunities, not on tasks. In the context of organizational environment, it is appropriate to pay particular attention to ideal projective structures.

It has already been noted that one of the essential tasks of strategic modeling is to obtain and propagate timely factual information, both within the network and from the external part of the organizational environment. Without this information, the integral process of administration can be treated merely as a subjective opinion.

In terms of management, information processes need ordering via the formation of a special corporate culture based on procedures for the treatment of information, that is, information acquisition, intelligent information processing and the use of information to carry out an entire corporate strategy. Thus, organization will avoid previous mistakes or repeated invention of long-tested methods of administration.

Along with the importance of understanding the differences in the axiological aspects of participants in communicative processes as one of the causes of the emergence of conflicts, it is necessary to recognize that the main catalyst for organizational tension is the unsatisfactory information exchange. In that sense, we will examine mediation as the key technology for conflict resolution and implementation of IT programs as the essential

technologies harmonizing communicative processes based on the most productive use of information.

While considering scenarios of conflict management, one should focus on analysis of IT programs for computerized automation of communication processes as it was presented . By adopting information technologies, information is retrieved from its abstract storage area, processed and returned in a new form; as a result, entire administrative discourses can be gradually modified minimizing emergence of organizational conflicts.

This allows considering several types of information technologies that are thought to be efficient when applied to reduce advanced development risks in communicative fiel

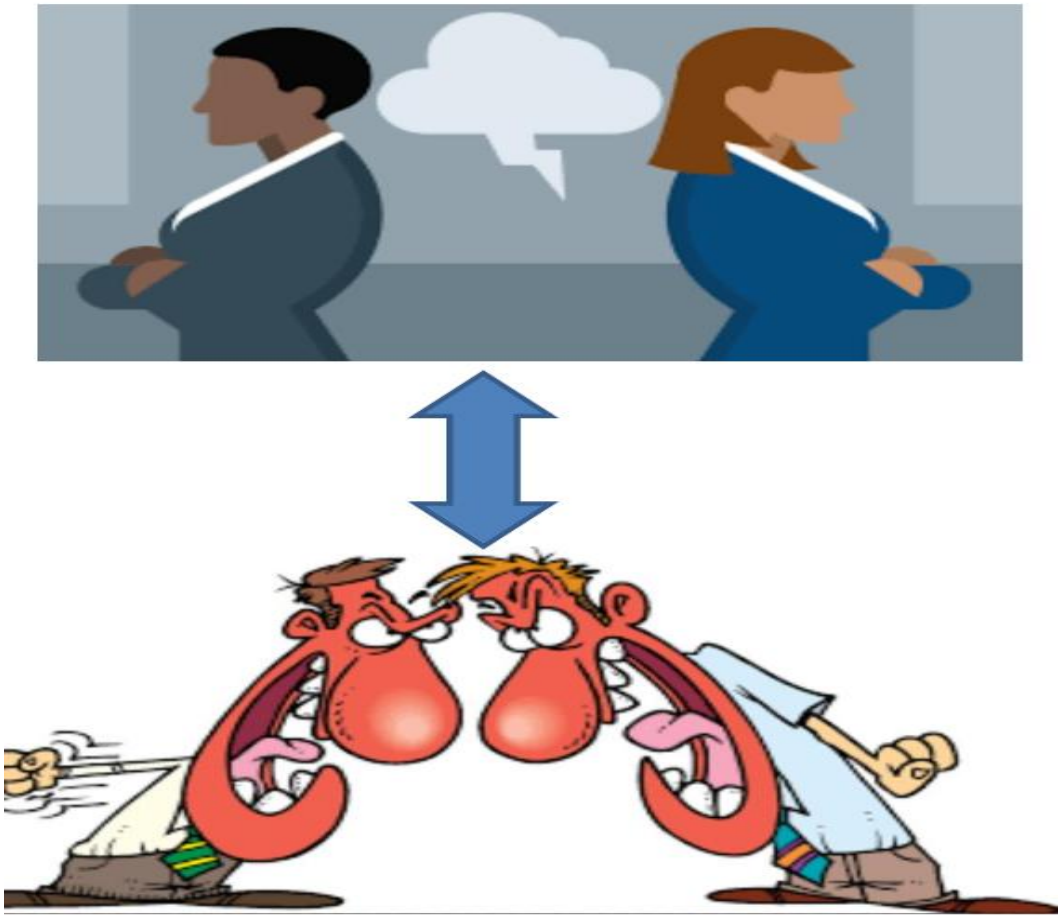

Fig 1. Shows Conflict between two people

**Conflicts are**

- Disagreement among parties
- Interdependence
- Perceived incompatible goals
- Interference

IIT conflict Consistent with pluralist perspective on information systems Inconsistent with the guitarist (harmonious) view.

Within a pluralist view, participants have their own legitimate goals. IS are related to social and political processes. IS can affect the balance of power.

Causes of Information technology conflict

- emerge from mandatory systems
- emerge from systems that transcend units, departments, or organizations and establish horizontal or vertical links
- arise from systems that aim to standardize, enforce discipline, and monitor

Information Technology conflicts emerge in case of contradictory structures embedded in org's and IS

| | | |
|---|---|---|
| Standardization | vs | Customization |
| Disciplinarization | vs | Autonomy |
| Centralization | vs | Decentralization |
| Bureaucracy | vs | Adhocracy |
| Top down | vs | Bottom up |
| Big bang | vs | Incremental |

How can managers deal with IS conflicts**?**

- Identify conflict types and resistance potential of projects at an early stage
- Communicate in early stages with relevant groups
- Follow small steps in high conflict contexts
- Attention for social organizational dimensions of IS
- Communications in various logics / languages
- Preparedness to negotiate, to adapt, to change, to slow down

### 3.1.1. Conflict resolution

Conflict resolution ability is an alternative to these two extremes in ego-centric behavior and is expressed through a set of motivational, cognitive, emotional, will-power, behavioral and communicative characteristics: either perceiving a wide range of conflict manifestations: emotions, images, words, actions “both in yourself and other people” as soon and as clear as possible

| Self-Check 3 | Written test |
|---|---|

**Direction : answer the following questions**

1) Explain about conflict (3point)

2) Mention at least three points about how managers deal with conflict (4 points)

3) Mention at least two courses of IT conflicts (3 points)

***Note:*** **Satisfactory 100%**

You can ask you teacher for the copy of the correct answers.

Score = _____

Rating: _____

| LG #16 | LO4 Submit analysis and gain agreement |
|---|---|

**Instruction sheet**

This learning guide is developed to provide you the necessary information regarding the following content coverage and topics:

- Preparing detailed document according to documentation standards and organizational template
- Writing document
- Communicating with client on the gathered data

This guide will also assist you to attain the learning outcomes stated in the cover page. Specifically, upon completion of this learning guide, you will be able to:

- Prepare Detailed document according to standards and organizational templates are prepared
- written document be appropriate to the audience
- communicated to client to gain consensus and agreement on business requirements

**Learning Instructions:**

Read the specific objectives of this Learning Guide.

1. Follow the instructions described below.
2. Read the information written in the “Information Sheets”. Try to understand what are being discussed. Ask your trainer for assistance if you have hard time understanding them.
3. Accomplish the “Self-checks” which are placed following all information sheets.
4. Ask from your trainer the key to correction (key answers) or you can request your trainer to correct your work. (You are to get the key answer only after you finished answering the Self-checks).
5. If you earned a satisfactory evaluation proceed to “Operation sheets
6. Perform “the Learning activity performance test” which is placed following “Operation sheets” ,
7. If your performance is satisfactory proceed to the next learning guide,
8. If your performance is unsatisfactory, see your trainer for further instructions or go back to “Operation sheets”.

## Information Sheet 1: Preparing detailed document

### Overview

You should already know about identifying key information sources, gathering data through formal processes, and ensuring that the analysis is accurate and complete. This resource will help you to submit an analysis and gain agreement within an information technology environment.

### 1.1. Detailed Document

Detailed document should be written by taking the following sequences in to account

- Cover letter
- Title Page
- Table of Contents
- Abstract or Executive Summary
- Introduction
- Discussion(body)
- Conclusions
- Recommendations
- References
- Appendices

Table 1. Summarizes the main headings used to outlines the purpose of each section

| Section | Purpose |
|---|---|
| **Title Page**<br>(Not part of the word count) | Gives the title of the report, the student name/number, the name of the person the report is being submitted to, and the completion date. |
| **Table of Contents**<br>(Not part of the word count) | Shows the sections of the report.<br>Gives the headings, subheadings and page numbers. |
| **Abstract or Executive Summary** | Gives a summary of the whole report.<br>Outlines the report's purpose, methodology, findings, main conclusions and recommendations.<br>Mainly written in past tense, and prepared last. |
| **Terms of Reference** | Briefly states the purpose and scope of the report. This includes who requested the report, the main issues or problems to be identified, the reason for undertaking the report and the due date of the report. |
| **Procedure** | Outlines the methods used to collect information e.g. interviews, questionnaires, observations and/or |

| | |
|---|---|
| | research. |
| **Introduction**<br>(May be used instead of the Terms of Reference and Procedure) | Outlines the context, background and purpose of the report.<br>Defines terms and sets limits of the investigation.<br>The reader/audience can easily identify what the report is about, how information was gathered, and why the report is needed.<br>Mainly uses past tense and can be written last – but is presented first. |
| **Findings and/or Discussion**<br>For this section, avoid using the headings "Findings" or "Discussion". Instead, create headings and sub-headings that identify the main issues or problems. | Findings: What was found during the research or investigation.<br>Gives the facts only – no interpretation by the writer of the report.<br>Tables, graphs or diagrams can be used.<br>Must be relevant to the issues and problems identified in the Terms of Reference.<br>Arranged in a logical order with headings and sub-headings.<br>Discussion: You may also be required to analyse, interpret and evaluate the findings. The discussion draws together different parts of the findings and may refer to findings of other studies and/or theories. |
| **Conclusions** | Brief statements of the key findings of the report (full explanation is given in the Findings and/or Discussion).<br>Arranged so the major conclusions come first.<br>Should relate directly to the objectives set out in the Terms of Reference or Introduction. |

| | |
|---|---|
| | Follow logically from the facts in the Findings and/or Discussion.<br>Must be complete enough for recommendations to be made from them. |
| **Recommendations**<br>(note: not all reports give recommendations) | The opinions of the writer of the report about possible changes, or solutions to the problems, including who should take action, what should be done, when and how it should be done. |
| **References**<br>(Not part of the word count) | A list of the sources that are used in and referred to in the report.<br>Use APA referencing style. |
| **Bibliography**<br>(Not always required) | Lists any sources that were read for the research but were not cited in the report. (Bibliography is not included in the word count). |
| **Appendices**<br>(Not always required) | Additional relevant information. May include interview questions, surveys, glossary etc. (Appendices are not included in the word count). |

**The main part of this document consists of**

- Introduction
- Body(discussion)
- Recommendation and conclusion

| Self-Check 4.1 | Written test |
|---|---|

Name: _____ Date: _____

**DITRCTION:** answer the following questions

1) What are the main parts of a document? ( 2 points)
2) Explain about Title Page (4 points)
3) Discuss about the Recommendation section of a document (4 points)

***Note:*** **Satisfactory rating – 100%**

You can ask you teacher for the copy of the correct answers.

**Answer Sheet**

Score = _____
Rating: _____

**Information Sheet 2: Writing document**

## 2.1. TECHNICAL WRITING

Most technical writing in day-to-day business involves the preparation of various “reports” Writing reports is common for many technical people because reports are a major part of the development and application of technology.

Very few companies pay technical professionals a salary without written words to implement and evaluate what has been worked on or developed.

For example,

if an engineer spends a year developing a new transmission for a car, several types of reports are needed for the design, evaluation, and implementation of the new component. Engineering must also report to management on the viability of design, costs,

Writing an email to a friend is not the same as writing in a job-related context. Although at this point we are just scratching the surface, you should be aware of what readers will expect your documents to look like. You should then be competent enough and deploy

### 2.1.1. THE WRITING PROCESS

Try to remember the last time you had to write a more or less formal (academic or professional) document. With the help of the questions below, reflect on your usual writing habits and their usefulness.

Did you do anything before beginning to write (for example, mentally scan the main ideas you wanted to transmit and/or jot them down, look for information, schedule your work in terms of time, outline before or after your first draft)?

What did you do when writing (simply sit in front of the computer, create a new document and begin writing your final version, write several drafts?

What did you do once you had completed your first version (allow for thorough revision, quickly scan for any mistakes, print it and hand it in)?

Beginning to write may be a hard task for most people as ideas come mixed up in a disorderly manner.

In trying to get started, many different aspects come into mind: content, style, grammar, etc. and it may be difficult to cope with them all at the same time:

In order to seek guidance and to acquire confidence, the writer may find it useful to resort to some kind of systematic and integrative approach which takes into consideration the most important aspects of writing.

At this point it is useful to clarify that the three approaches mentioned above will be combined into one by subsuming the product and the genre approach under the process approach which, in turn, will serve as the guide to organizing the information in the following chapters. However, the writing approach presented below is by no means intended to be prescriptive. Instead it has been designed to provide guidance allowing enough room for maneuver so that writers can adapt these guidelines to their own writing preferences and style.

We view writing as a non-linear and recursive process composed of three main stages:

- **Pre-writing.** Before beginning to write you should invest some time planning what to write and how to transmit the information. In order to do this you should consider (a) *audience and purpose* (who you are writing to and why), (b) *tone and sty*le (how you transmit the information), (c) *gathering of information* (brainstorming, analyzing sources of information, etc.) and (d) *outlining* (organization of information).
- **Writing.** Once you have gathered and organized the information, you can begin writing a first draft. At this stage, it is important to consider the main parts of the text, paragraph development and coherence as well as genre conventions.

As you revise and consider all these aspects, it may be helpful to use representative models as a reference.

- **Post-writing**. The final stage of the writing process involves (a) revising content and
  organization, (b) checking for grammatical accuracy (c) editing for style and (d) proofreading and peer review. These steps will help you spot any inconsistencies in your document so as to produce a flawless final version

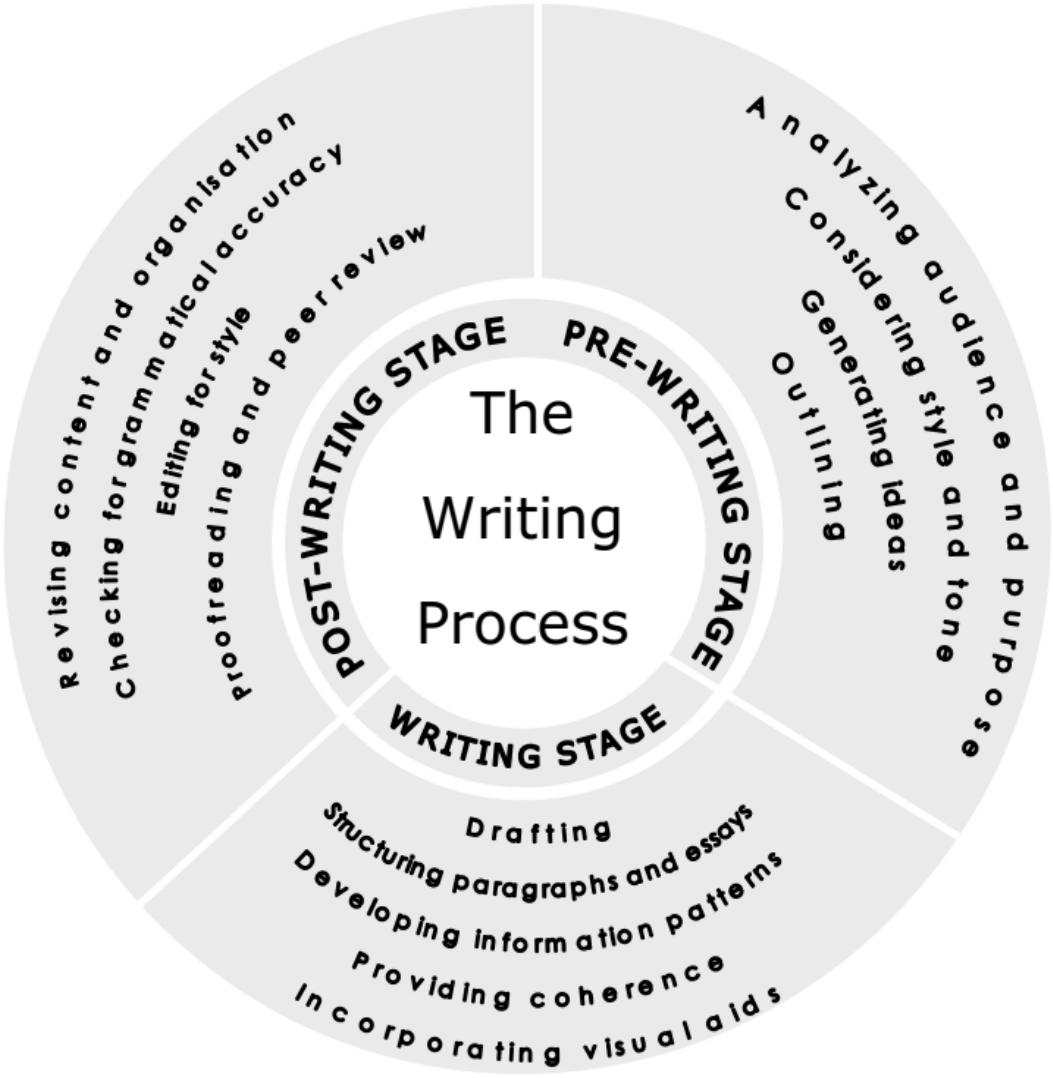


**Fig.1 shows three main stages of the writing process**

| Self-Check .2 | Written test |
|---|---|

**DIRECTION:** answer the following questions

1) What is content knowledge? Explain your answer (5 points)

2)Explain about writing process knowledge (5 points)

***Note:*** **Satisfactory rating 100%**

You can ask you teacher for the copy of the correct answers.

Score = _____

Rating: _____

## Information Sheet 3: Communicating with client

### 3.1. COMMUNICATION

Communication basically is exchange of information and is vital in all aspects life While communication with your loved ones may come fairly naturally (hopefully, at least),

**Effective client communication** takes a good deal of practice and effort.

Whether you're writing a client an email, talking with them on the phone, or having an in-person conversation with them, there are some communication tactics that you should abide by in order for that relationship to really last. The business analyst may use prompting questions such as:

Financial experts excel at communicating by providing data and information, which is often inconsistent with the style and approach needed for optimal communication.

What feels like open communication to you may be ineffective and even offensive to clients with different behavioral styles?

Moreover, the problem is exacerbated when most communication comes in written form – reports, newsletters, etc. – when in excess of 90% of the population learns and understands new information by non-written means.

When we ask advisors how they are communicating, they often say "we talk to our clients all the time." While advisors solicit information from clients from time to time, they usually do it through a general survey. It yields "data," but your clients don't feel heard.

When it comes to effective communication, don't assume you are doing it "right" by the client's measurement. Ask them what kind of interaction they want and need. Present information differently to different clients, giving them different avenues for dialogue with you. And of course, always stay

**Key points for effectively communicating with your client**

- **Pay Attention to Your Tone of Voice-** "It's not what you say, but how you say it." Surely you have heard that phrase about a million times before.
- **Be Friendly-** Whether you have a super upbeat and energetic personality or are more calm and laid-back doesn't really matter.
- **Say "No" the Right Way-** Nobody likes to hear the word "no." Try to avoid this word in your client communication at all costs. If you have exhausted all other alternatives and "no" is the only option left, at least phrase the "no" in a more positive way.
- **Practice Active Listening-** A huge part of what makes a great conversationalist is someone who really *listens.*
- **Be Consistent-** You also want to make sure that you are consistent in your messaging and the way that you communicate with your clients. From their very first interaction with you, your clients will develop certain expectations.
- **Speak Their Language-** Part of great communication is adapting your style to the person that you are speaking with. If your client uses a very formal tone, respond in a formal tone.
- **Pay Attention to Formatting-** When styling your emails or documents, pay close attention to the formatting. To make your message more readable, create lists whenever possible.
- **Be Clear & Concise-** Be as clear and specific as possible in your delivery. And don't be verbose. Cut to the chase and say what you have to say in as few words as possible.
- **Always Say Please and Thank You -** Sometimes, it's the basic, little things that mean the most. So if they aren't already, make "please" and "thank you" a part of your vocabulary—and don't be afraid to overuse them.

- **Make Things Easy for Them-** Like I said, your client is short on time. So when you're communicating with your client, you want to make things as easy as possible
- **Anticipate Questions-** Before getting into each meeting, be prepared for the questions that you will probably be asked

and know how you would respond to each one

- **Ask Questions as Needed-** On that note, don't be shy about asking questions yourself. It's always better to ask too many questions than to not ask any and end up more confused
- **Pay Attention to Non-Verbal's-** Verbal and written communication isn't the only thing that matters—non-verbal communication is just as important.
- **Paraphrase/Summarize-** admit that there have definitely been a few times that I've been conversing with someone on my team and, after summarizing the main points that were discussed and the next action steps, we found that there was some miscommunication.
- **Proofread-** Lastly, in all of your written communication, proofread, proofread and proofread some more! The quickest way to undermine your credibility is to send out an email or document ridden with spelling mistakes or grammatical errors. So make sure that everything you send out is error-free.
- **Conclusion -** The way that you communicate with your clients can determine whether those relationships are long-lasting or short-lived. So be intentional about your communication. Follow these tactics, and I've got a hunch that your client relationships will go the distance

| Self-Check 3 | Written test |
|---|---|

DIRECTION: Answer the following questions

1) What is communication? (4 points)
2) Mention at least four key points and explain for effectively communicating with your client (6points)

***Note:*** **Satisfactory rating – 100%**

You can ask you teacher for the copy of the correct answers.

**Answer Sheet**

Score = _____
Rating: _____

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# Acknowledgement

We wish to extend thanks and appreciation to the MoSHE, FTA, Oromia TVET bureau, and different college instructors, academic and government agencies that took vital role and donated their expertise and resource for the developments of this TTLM.

We would like also to express our appreciation to the Experts from different organizations with in the line MoSHE and FTA that made the developments of this TTLM possible in terms of financing and supporting technically.

The development of this TTLM held on December 2020 at Bishoftu, Ethiopia.

**The trainers and Experts who are participated technically on the development of this TTLM**

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This TTLM was developed under TVET program for Database Administration level III on the **December 2020** at **Bishoftu**, Ethiopia

# Database Administration LEVEL-III

# ANSWER KEYS

## LO 1: Identify key information sources

| NO | SELF CHECK-1 | SELF CHECK-2 | SELF CKECK-3 |
|---|---|---|---|
| 1 | **B** | **B** | X=2 |
| 2 | **B** | **C** | Y=19 |
| 3 | **A** | **D** | Z=60 |
| 4 | **D** | | W=20 |
| 5 | **E** | | I=100 |
| | | | |
| | | | |

## LO2: Gather data through formal and informal processes

| NO | SELF CHECK-1 | SELFCHECK-2 | SELF CHECK-3 | SELF CHECK-4 |
|---|---|---|---|---|
| 1 | **A** | **A** | **A** | **D** |
| 2 | **B** | **B** | **D** | **D** |
| 3 | **B** | **D** | **B** | **D** |
| 4 | **A** | | | **C** |
| 5 | | | | |

# LO3: Ensure analysis is accurate and complete

| NO | SELF-CHECK-1 | SELF-CHECK-2 |
|---|---|---|
| 1 | B | A |
| 2 | A | A |
| 3 | C | C |
| 4 | | |

### SELF CHECK -1 RATIO BASED QUESTION

**A=200 B=200 C=200 D=400**

# LO4: Submit analysis and gain agreement

| NO | SELF CHECK-1 |
|---|---|
| **1** | A |
| **2** | B |
| **3** | D |
| **4** | B |