# BUSINESS REPORT WRITING NOTES

UNIT I

## DEFINITION OF BUSINESS COMMUNICATION

The sharing of information between people within an enterprise that is performed for the commercial benefit of the organization. In addition, **business communication** can also refer to how a company shares information to promote its product or services to potential consumers.

## PROCESS OF COMMUNICATION

The communication is a dynamic process that begins with the conceptualizing of ideas by the sender who then transmits the message through a channel to the receiver, who in turn gives the feedback in the form of some message or signal within the given time frame. Thus, there are Seven major elements of communication process:



1. **Sender:** The sender or the communicator is the person who initiates the conversation and has conceptualized the idea that he intends to convey it to others.
2. **Encoding:** The sender begins with the encoding process wherein he uses certain words or non-verbal methods such as symbols, signs, body gestures, etc. to translate the information into a message. The sender’s knowledge, skills, perception, background, competencies, etc. has a great impact on the success of the message.
3. **Message:** Once the encoding is finished, the sender gets the message that he intends to convey. The message can be written, oral, symbolic or non-verbal such as body gestures, silence, sighs, sounds, etc. or any other signal that triggers the response of a receiver.
4. **Communication Channel:** The Sender chooses the medium through which he wants to convey his message to the recipient. It must be selected carefully in order to make the message effective and correctly interpreted by the recipient. The choice of medium depends on the interpersonal relationships between the sender and the receiver and also on the urgency of the message being sent. Oral, virtual, written, sound, gesture, etc. are some of the commonly used communication mediums.
5. **Receiver:** The receiver is the person for whom the message is intended or targeted. He tries to comprehend it in the best possible manner such that the communication objective is attained. The degree to which the receiver decodes the message depends on his knowledge of the subject matter, experience, trust and relationship with the sender.
6. **Decoding:** Here, the receiver interprets the sender’s message and tries to understand it in the best possible manner. An effective communication occurs only if the receiver understands the message in exactly the same way as it was intended by the sender.
7. **Feedback:** The Feedback is the final step of the process that ensures the receiver has received the message and interpreted it correctly as it was intended by the sender. It increases the effectiveness of the communication as it permits the sender to know the efficacy of his message. The response of the receiver can be verbal or non-verbal.

**Note:** The Noise shows the barriers in communications. There are chances when the message sent by the sender is not received by the recipient.

## BARRIERS TO COMMUNICATION

Communication is the key factor in the success of any organization. When it comes to effective communication, there are certain barriers that every organization faces. People often feel that communication is as easy and simple as it sounds. No doubt, but what makes it complex, difficult and frustrating are the barriers that come in its way.

Here are a few of the most commonly-found barriers in communication in an organization:

1. **Perceptual Barriers:** The most common problem faced these days is that of the difference in opinion between two people. The varied perceptions of every individual give rise to a need for effective communication.
2. **Emotional Barriers:** Another main barrier is the fear and mistrust that form the roots of our emotional barrier which stop us from communicating effectively with our co-workers.
3. **Language Barriers:**Language that describes what we would want to express and communicate to others, may at times, serve as a barrier to them. In today’s global scenario, the greatest compliment we can pay to another person is by speaking and effectively communicating to them in their local language. We need to understand that the native language of employees can be different from anyone else’s.
4. **Cultural Barriers:** The world is made up of diverse cultures. A cultural barrier arises when two individuals in an organization belong to different religions, states or countries.
5. **Physical Barriers:** Research shows that one of the key factors in building strong and integrated teams is proximity. Most offices have closed doors and cabins for those at higher levels of the organizational ladder while the large working areas are physically placed far apart. This kind of barrier forbids team members from effective interaction with each another.

The only way one can improve effective organizational communication is by changing one’s thoughts and feelings with one’s colleague. In this way, we don’t just break down communication barriers, but also build relationships that work successfully for long.

Therefore, overcoming communication barriers in organizations is very important. Communication is much more than just trading words. It also encompasses the emotions and intentions of the people involved. Overcoming communication barriers can be achieved through proper training interventions. These include programs to improve listening and written skills, build conversational skills, trainings on verbal and non-verbal communications skills, giving and receiving feedback, negotiation skills, etc.

## ROLE/IMPORTANCE OF COMMUNICATION IN BUSINESS

Effective Communication is significant for managers in the organizations so as to perform the basic functions of management, i.e., Planning, Organizing, Leading and Controlling.

Communication helps managers to perform their jobs and responsibilities. Communication serves as a foundation for planning. All the essential information must be communicated to the managers who in-turn must communicate the plans so as to implement them. Organizing also requires effective communication with others about their job task. Similarly leaders as managers must communicate effectively with their subordinates so as to achieve the team goals. Controlling is not possible without written and oral communication.

Managers devote a great part of their time in communication. They generally devote approximately 6 hours per day in communicating. They spend great time on face to face or telephonic communication with their superiors, subordinates, colleagues, customers or suppliers. Managers also use Written Communication in form of letters, reports or memos wherever oral communication is not feasible.

Thus, we can say that “**effective communication is a building block of successful organizations**”. In other words, communication acts as organizational blood.

**The importance of communication in an organization can be summarized as follows:**

1. Communication **promotes** [**motivation**](https://managementstudyguide.com/importance_of_motivation.htm) by informing and clarifying the employees about the task to be done, the manner they are performing the task, and how to improve their performance if it is not up to the mark.
2. Communication is a **source of information** to the organizational members for decision-making process as it helps identifying and assessing alternative course of actions.
3. Communication also plays a crucial role in **altering individual’s attitudes**, i.e., a well informed individual will have better attitude than a less-informed individual. Organizational magazines, journals, meetings and various other forms of oral and written communication help in moulding employee’s attitudes.
4. Communication also **helps in socializing**. In todays life the only presence of another individual fosters communication. It is also said that one cannot survive without communication.
5. As discussed earlier, communication also assists in **controlling process**. It helps controlling organizational member’s behaviour in various ways. There are various levels of hierarchy and certain principles and guidelines that employees must follow in an organization. They must comply with organizational policies, perform their job role efficiently and communicate any work problem and grievance to their superiors. Thus, communication helps in controlling function of management.

An effective and efficient communication system requires managerial proficiency in delivering and receiving messages. A manager must discover various [barriers to communication](https://managementstudyguide.com/communication_barriers.htm), analyze the reasons for their occurrence and take preventive steps to avoid those barriers. Thus, the primary responsibility of a manager is to develop and maintain an effective communication system in the organization.

## AUDIENCE ADAPTATION

### Overview

Audience analysis involves identifying the audience and adapting a speech to their interests, level of understanding, attitudes, and beliefs. Taking an audience-centered approach is important because a speaker’s effectiveness will be improved if the presentation is created and delivered in an appropriate manner. Identifying the audience through extensive research is often difficult, so audience adaptation often relies on the healthy use of imagination.

As with many valuable tools, audience analysis can be used to excess. Adapting a speech to an audience is not the same thing as simply telling an audience what they want to hear. Audience analysis does not mean ‘grandstanding’ or ‘kowtowing’ to a public. Rather, adaptation guides the stylistic and content choices a speaker makes for a presentation. Audience adaptation often involves walking a very fine line between over-adapting and under-adapting – a distinction that can be greater appreciated by understanding the general components of this skill.

### Factors in Audience Analysis

**Audience expectations.** When people become audience members in a speech situation, they bring with them expectations about the occasion, topic, and speaker. Violating audience expectations can have a negative impact on the effectiveness of the speech. Imagine that a local politician is asked to speak at the memorial service for a beloved former mayor. The audience will expect the politician’s speech to praise the life and career of the deceased. If the politician used the opportunity to discuss a piece of legislation, the audience would probably be offended and the speaker would lose credibility. Of course, there may be some situations when violating the audience’s expectations would be an effective strategy. Presenters that make political statements at the Academy Awards do so precisely because the message’s incongruity with the occasion increases the impact of the proclamation.

**Knowledge of topic.** Audience knowledge of a topic can vary widely on any given occasion; therefore, communicators should find out what their audience already knows about the topic. Never overestimate the audience’s knowledge of a topic. If a speaker launches into a technical discussion of genetic engineering but the listeners are not familiar with basic genetics, they will be unable to follow your speech and quickly lose interest. On the other hand, drastically underestimating the audience’s knowledge may result in a speech that sounds condescending. Try to do some research to find out what the audience already knows about the topic. Giving a brief review of important terms and concepts is almost always appropriate, and can sometimes be done by acknowledging the heterogenous audience and the importance of ‘putting everyone on the same page.’ For example, even if the audience members were familiar with basic genetics, a brief review of key term and concepts at the beginning of a speech refreshes memories without being patronizing.

**Attitude toward topic.** Knowing audience members’ attitudes about a topic will help a speaker determine the best way to reach their goals. Imagine that a presenter is trying to convince the community to build a park. A speaker would probably be inclined to spend the majority of the speech giving reasons why a park would benefit the community. However, if they found out ahead of time that most neighbors thought the park was a good idea but they were worried about safety issues, then the speaker could devote their time to showing them that park users would be safer in the park than they currently are playing in the streets. The persuasive power of the speech is thus directed at the most important impediment to the building of a park.

**Audience size.** Many elements of speech-making change in accordance with audience size. In general, the larger the audience the more formal the presentation should be. Sitting down and using common language when speaking to a group of 10 people is often quite appropriate. However, that style of presentation would probably be inappropriate or ineffective if you were speaking to 1,000 people. Large audiences often require that you use a microphone and speak from an elevated platform.

**Demographics.** The demographic factors of an audience include age, gender, religion, ethnic background, class, sexual orientation, occupation, education, group membership, and countless other categories. Since these categories often organize individual’s identities and experiences, a wise speaker attends to them. Politicians usually pay a great deal of attention to demographic factors when they are on the campaign trail. If a politician speaks in Day County, Florida (the county with the largest elderly population) they will likely discuss the issues that are more relevant to people in that age range – Medicare and Social Security. Communicators must be careful about stereotyping an audience based on demographic information – individuals are always more complicated than a simplistic identity category. Also, be careful not to pander exclusively to interests based on demographics. For example, the elderly certainly are concerned with political issues beyond social security and Medicare. Using demographic factors to guide speech-making does not mean changing the goal of the speech for every different audience; rather, consider what pieces of information (or types of evidence) will be most important for members of different demographic groups.

**Setting.** The setting of a presentation can influence the ability to give a speech and the audience’s ability and desire to listen. Some of these factors are: the set-up of the room (both size and how the audience is arranged), time of day, temperature, external noises (lawn mowers, traffic), internal noises (babies crying, hacking coughs), and type of space (church, schoolroom, outside). Finding out ahead of time the different factors going into the setting will allow a speaker to adapt their speech appropriately. Will there be a stage? Will there be a podium or lectern? What technology aids will be available? How are the seats arranged? What is the order of speakers? While these issues may appear minor compared to the content of the speech and the make-up of the audience, this foreknowledge will soothe nerves, assist in developing eye contact, and ensure that the appropriate technology, if necessary, is available. Take into account the way that the setting will affect audience attention and participation. People are usually tired after a meal and late in the day. If scheduled to speak at 1:00 PM, a speaker may have to make the speech more entertaining through animation or humor, exhibit more enthusiasm, or otherwise involve the audience in order to keep their attention.

**Voluntariness.** Audiences are either voluntary, in which case they are genuinely interested in what a presenter has to say, or involuntary, in which case they are not inherently interested in the presentation. Knowing the difference will assist in establishing how hard a speaker needs to work to spark the interest of the audience. Involuntary audiences are notoriously hard to generate and maintain interest in a topic (think about most people’s attitudes toward classes or mandatory meetings they would prefer to not attend.)

**Egocentrism**. Most audience members are egocentric: they are generally most interested in things that directly affect them or their community. An effective speaker must be able to show their audience why the topic they are speaking on should be important to them.

### Tips for analyzing an audience

**Define target audience.** In most audiences there will be a mix of opinions about any topic. There are usually some people who agree with a speaker’s claim, some people who are strongly opposed, others who are undecided, and still others that are apathetic. Conventional wisdom maintains that a communicator does not need to focus on the people who already agree with them and the people who strongly disagree with them will probably not be persuaded by one speech. Therefore, generally the target audience is composed of those people who fall between the two extremes – they are the ones that a speaker should be primarily concerned with. Composing a speech with them in mind enables a speaker to have their greatest impact. Of course, the conventional wisdom is just that—conventional. Some speakers are so dynamic (or terrible) that they can transform beliefs of the audience that falls outside the ‘undecided’ category.

**Research**. At times, a presenter may be able to learn about their audience by researching in the library or on the internet. This can be especially helpful when speaking to members of a distinct organization. For example, if asked to speak to the local chapter of the Sierra Club, visiting their web page and finding out about the goals and beliefs of the organization would reveal publically stated goals. Obtaining brochures or other literature from the organization or group will enhance audience analysis. At the very least, the person(s) who arranged the speaking engagement should be able to give some information about the audience that will be attending. Asking them about the audience’s expectations of the event, the setting of the speech, and other key questions about the different elements will make audience analysis more productive.

**Survey.** Conducting a survey is one way to find out about the values, beliefs, and knowledge of an audience. Surveys allow a speaker to gain specific information from a large number of people. With access to the audience before a speech, an orator may be able to give brief written surveys to all audience members. Surveys may include open-ended questions (“How do you feel about animal research?”) and close-ended questions (“Do you approve of animal research?”). Here are some tips for constructing a survey:

1. Keep the survey short. Get the information you need in as few questions as possible.
2. Keep questions short and focused.
3. Choose the wording carefully and make questions concise.
4. Avoid leading or loaded questions.

**Interview.** Learning about an audience by conducting interviews is the most helpful but usually most unrealistic way to understand an audience. Unlike surveys that can obtain information from many people in a short amount of time, interviews are much more time consuming. Interviewing all members of the audience is often impossible or unreasonable. A possible alternative is to converse with a representative sample of the audience. A representative sample is a small subset of the audience that maintains the demographic proportions of the whole audience. For example, if speaking to a group that was 90% female, making sure that interviewees were also about 90% female would establish a representative sample.

Reminders so nice they need mentioning twice:

**Avoid stereotyping**. Although thorough audience analysis demands taking demographic factors into account, such analysis does not legitimate stereotyping. Stereotypes are fixed beliefs or opinions about people in a particular group. Stereotyping neglects individual differences and often causes people to make decisions based on flawed reasoning. The best way to avoid stereotyping is to learn as much as possible about an audience using the above techniques instead of relying on preconceived notions of a group.

**Do not simply tell the audience what they want to hear.** The oldest and most common criticism of rhetoric, especially persuasive speech, is that it is mere flattery; a way for an advocate to pander to an audience. Politicians are often accused of doing just this—changing their stance on an issue to please different audiences that they address. To prevent this behavior, begin the planning of every speech with a clear goal to accomplish (i.e. “To inform my audience about online education” or “To persuade my audience that my research project deserves funding”). This goal should remain constant regardless of the specific audience being addressed. Audience analysis should be used to discover the best available means to reach that goal. Be true to this purpose, but tailor the speech to the audience.

**Continue to analyze the audience.** Audience analysis continues even after beginning to speak. As a speaker, pay attention to the feedback that audience members give. If a presenter notices that several people look confused, then they may have overestimated their audience’s knowledge of the topic. Take the time to clarify terms and give necessary background information. If an audience looks bored, then figure out how to spice up the speech—either with more audience involvement or more excitement. The speech will have the greatest opportunity for success if the speaker treats their audience members as active agents in the speaking process.

UNIT – 3

**THE BASIC ELEMENTS OF THE INFORMAL REPORTS**

The informal report has five basic elements, arranged in a fairly standard form. You can adapt it to many situations – from presenting background to recommending and proposing. The form has five parts:

Introduction
Summary
Background
Conclusions and Recommendations
Discussion

**Informal Introductions**

The object of an introduction is to orient the reader to the ·contents. Depending on’ the situation, you can choose one of four types of introductions:

* State the objective.
* State the context.
* Alert the reader to a problem.
* Use a preprinted form if one exists.

State the Objective The basic informal introduction is a one-sentence statement of the purpose of the report.

Objective: To report the results of the investigation of delays at Work Station 3.

Many reports start with this method; it is very common. State the Context: “An introduction that states the context provides enough information to orient a reader to the rest of the report~This common type of introduction, which will fit most situations, is an excellent
way to begin almost all memos, [letters](http://www.technicalreportwriting.org/letters-3448), and informal reports. To use an introductlon that states context, include four pieces of infor-
.mation: cause, credibility, purpose, and preview. Follow these guidelines:

* Tell what caused you to write. Perhaps you are reporting back on an assignment, or you have discovered something the recipient needs to know.
* Explain why you are credible in the situation. You are credible either because at your actions or YOUl po$lUOI’l
* Name the-report’s purpose. Use one clear sentence: “Tlus report explains why Work Station 3 is inefficient.”
* Preview the contents. List the main heads that will follow.

Two sample introductions that use these guidelines follow.

**INTRODUCTION: EXAMPLE]**

Lam responding :0’your recent request thatl research the types of writing tasks that will be required in the course of my data processlnq career. In gathering this information, I interviewed John Broderick, the Data Processing Manager Stephen Thomas and Associates, an architectural firm in Lexington, Kentucky.This report explains the writing responsibilities Purpose of a Data Processing Manager. These responsibilities consist of program descriptions, documentation, instruction sets, Preview and proposals.

**INTRODUCTION: EXAMPLE 2**

In response to your request that I recommend an integrated t software program for our office system, I have investigated two programs, Microsoft Works and Incredible Jack. I have read several detailed reviews and have talked to several current users O! eBen. The I1I ItAO presents mv recommendation an9 the reasons for it. The decision is based on three criteria a: cost, documentation, and expandability

Alert the Reader to a Problem To alert the reader to a problem, you focus attention on it. To help the reader, set up a contrast between a positive and a negative, making the problem clear. Use one of the following methods:

* Contrast a general truth (positive) wilh the problem (negative)
* Contrast the problem (negative) with a proposed solution (positive)

In either case, you should point out the significance of the problem or the solution. If you cast the problem as a negative, show how it violates some expected norm. If you are proposing a solution, point out its positive significance,

**EXAMPLE 1**

The products we sell must reach our retailers in satisfactory General truth condition. To do so, the. products must remain tightly packed
in their corrugated boxes. Recent complaints from trucking firms that deliver our products indicate that the flaps on our corrugated boxes are constantly opening during normal transport. The loose flaps present a serious safety threat to our products and jeopardize relations with our retailers

**EXAMPLE 2**

Posting financial data on our balance sheets and on the forms derived from them has always been a tedious task. It is a costly, inefficient method; it is so difficult that comparative figures have often not been available for pricing decisions. Anew spreadsheet program based on Lotus 1·2·3 could completely eliminate the tedious recopying and allow us to have many versions of the figures available for major decisions. Use a Preprinted Form Some organizations commonly use a preprinted form for informal report introductions. Figure 11.1 shows such a preprinted form entitled “Technical Report Summary.” The form contains spaces for content information and blanks for information management details. The content information is labeled Current Objective and Abstract. The information management details include department number; report number, employee number, security level, special information on chemicals and a key-word glossary. Information managers use these key words to code the report into a data base so that other researchers can find and use it as needed, thus avoiding needless duplication of effort.

**Summary**

The summary  also called “Abstract,” or sometimes “Executive Summary”  is a one-to-one miniaturization of the discussion section” If the
discussion section has three partsf the summary has three statements,’each giving the major point of one of the sections~In the Galaxy Foods example op pp. 243-244, notice that both the summary and the discussion’ contain two sections. Each statement in the summary presents the-major point of  the corresponding section in the discussion

**Background**

The background statement gives the reader a context by explaining the project’s methodology or history. If the report has only an objective statement, this section orients the reader to the material of the report. In the Galaxy Foods example, the background section orients the reader to the topic.

**Conclusions and Recommendations**

Informal reports often have a section called “Conclusions and Recommendation.” As shown in the Galaxy Foods example (pp. 243-244), this section usually provides information that differs from the summary. Sometimes, however, this section can replace the summary. In the example on p. 230, no summary appears because the Conclusions and Recommendation section serves the same function.

GUIDELINES FOR DEVELOPING INFORMAL REPORTS

There are some guidelines which help you to plan your report. These are:

1) DEFINING THE PROJECT

It is the beginning of the report that explains the purpose (definition) of the report. This ismostly one line sentence that describes the readers about what the report is about.

2) GATHHERING DATA

A good report is based on facts that are verified. The sources of data gathering may include the company records, observations, surveys, questionnaires and inventories, interviews and research work.

3) DEVELOP AN APPROPRIATE WRITING STYLE

Like other businesses report can range from informal to formal depending on the purpose, and audience. Reports from consultants to their clients or a report to your boss would be written in different styles.

4) USE OF EFFECTIVE HEADINGS

Good headings are helpful to both reader and writer. For a reader it serves as an outline which highlights main ideas and headings. For a writer, headings force organizing the data into meanings blocks.

5) BEING OBJECTIVE

Reports are convincing when the facts are believable and the writer is credible. Both sides of an issue should be presented and personal opinions should not be included in facts.



  KINDS OF INFORMAL REPORTS

There are six types of informal reports written in business environment. These are:

1) INFORMATION REPORTS

In these reports we collect and organize information. They may include routine activities like daily, weekly or monthly reports. These reports just provide information they do not analyse that information and do not provide any conclusion. This report contains three main parts. Introduction, body and conclusion.

2) PROGRESS REPORTS

These reports include the unusual or non-routine activities. Such reports usually answer three questions. is the project on schedule? Are corrective measures needed? And what activities are next? These reports may be external (customer) or internal (management). It describes the progress or status of the ongoing project.

3) JUSTIFICATION\RECOMMENDATION REPORTS

These are just like information reports but they also offer analysis in addition to data. They tend to solve problems by evaluating options and offering recommendations. These reports are being directed by the management to be made. It also discusses the pros and cons and cost of a project and also describes the benefits of the recommendation.

4) FEASIBILITY REPORTS

A report that is made when a company needs to decide whether to proceed with the planof action or not. It examines the practicality of implementing the proposal. These reports aremostly formed by out sourced consultants. In short it describes whether the plan is going to work or not.

5) MINUTES OF MEETING

The records of the proceedings of the meeting are called as minutes of the meeting. Itsummarizes the record of old and new business and announcements. It provides the name of thegroups, the date, time and place of meeting. It is concluded with the name and signature of the person who is recording the minutes.

6) SUMMARIES

A summary condenses the primary idea, conclusions and recommendations of a longer report, business plan or proposals. It omits all the examples, illustrations and references. Itincludes the overall evaluation of the document. It is mostly needed by the top management toget an overview of the problem and saves precious time.

## OBJECTIVES AND FUNCTIONS OF INFORMAL REPORTS

The following points highlight the objectives and functions of informal reports:

* Saves Time
* Reduces the Barriers to Communication.
* Helps in Timely Appraisal
* Helps in sharing day to day information.
* Avoids information loss.

## UNIT-4

# ****Data****

The facts and figures which can be numerically measured are studied in statistics. Numerical measures of same characteristic is known as observation and collection of observations is termed as data. Data are collected by individual research workers or by organization through sample surveys or experiments, keeping in view the objectives of the study. The data collected may be:

1. [**Primary Data**](http://itfeature.com/statistics/primary-and-secondary-data-in-statistics#primarydata)
2. [**Secondary Data**](http://itfeature.com/statistics/primary-and-secondary-data-in-statistics#secondarydata)

# ****Primary and Secondary Data in Statistics****

The difference between **primary** and **secondary data** in Statistics is that **Primary data** is collected firsthand by a researcher (organization, person, authority, agency or party etc) through experiments, surveys, questionnaires, focus groups, conducting interviews and taking (required) measurements, while the **secondary data** is readily available (collected by someone else) and is available to the public through publications, journals and newspapers.

## **Primary Data**

**Primary data** means the raw data (data without fabrication or not tailored data) which has just been collected from the source and has not gone any kind of statistical treatment like sorting and tabulation. The term **primary data** may sometimes be used to refer to first hand information.

### **Sources of Primary Data**

The sources of **primary data** are primary units such as basic experimental units, individuals, households. Following methods are used to collect data from primary units usually and these methods depends on the nature of the primary unit. Published data and the data collected in the past is called **secondary data**.

* **Personal Investigation**
The researcher conducts the experiment or survey himself/herself and collected data from it. The collected data is generally accurate and reliable. This method of collecting **primary data** is feasible only in case of small scale laboratory, field experiments or pilot surveys and is not practicable for large scale experiments and surveys because it take too much time.
* **Through Investigators**
The trained (experienced) investigators are employed to collect the required data. In case of surveys, they contact the individuals and fill in the questionnaires after asking the required information, where a ***questionnaire*** is an inquiry form having a number of questions designed to obtain information from the respondents. This method of collecting data is usually employed by most of the organizations and its gives reasonably accurate information but it is very costly and may be time taking too.
* **Through Questionnaire**
The required information (data) is obtained by sending a questionnaire (printed or soft form) to the selected individuals (respondents) (by mail) who fill in the questionnaire and return it to the investigator. This method is relatively cheap as compared to “through investigator” method but non-response rate is very high as most of the respondents don’t bother to fill in the questionnaire and send it back to investigator.
* **Through Local Sources**
The local representatives or agents are asked to send requisite information who provide the information based upon their own experience. This method is quick but it gives rough estimates only.
* **Through Telephone**
The information may be obtained by contacting the individuals on telephone. Its a Quick and provide accurate required information.
* **Through Internet**
With the introduction of information technology, the people may be contacted through internet and the individuals may be asked to provide the pertinent information. Google survey is widely used as online method for data collection now a day. There are many paid online survey services too.

It is important to go through the **primary data** and locate any inconsistent observations before it is given a statistical treatment.

## **Secondary Data**

Data which has already been collected by someone, may be sorted, tabulated and has undergone a statistical treatment. It is fabricated or tailored data.

### **Sources of Secondary Data**

The **secondary data** may be available from the following sources:

* **Government Organizations**
Federal and Provincial Bureau of Statistics, Crop Reporting Service-Agriculture Department, Census and Registration Organization etc
* **Semi-Government Organization**
Municipal committees, District Councils, Commercial and Financial Institutions like banks etc
* **Teaching and Research Organizations**
* **Research Journals and Newspapers**
* **Internet**

## **Organising and Summarising Data**

Data can be organised and summarised using the following techniques :

* Frequency Tables
* Graphical Representation
	+ Bar Chart
	+ Graphs
	+ Pie Chart etc.

## Analysis of Data

Analysis of data can be done using statistical tools like –

* Measureas of Central Tendency – Mean, Median, Mode, Quartiles etc.
* Measures of Dispersion – Standard Deviation, Quartile Deviation etc.
* Analysis using Time Series
* Hypothesis Testing – Z-test, T-test, F-test etc.

The method of analysis depends on the result that is desired and the data set available.

## DRAWING AND SUPPORTING CONCLUSIONS AND RECOMMENDATIONS

Give recommendations based on the results of the study. What practical steps can educators take to implement the key findings of the research study? **Remember, these recommendations must be supported by the statistical findings from the data analysis.** If the statistical results found that a new teaching program improves mathematical exam scores, then the only valid recommendation that can be made is that the new teaching program should be implemented in order to improve exam scores. However, if the data analysis found that the new teaching program does not improve mathematical exam scores, then the researcher cannot conclude that the new teaching program should be implemented, because the program was found to be ineffective in improving exam scores.

Educators can only change their own behavior; they cannot change the government. Therefore, the most beneficial recommendations will be ones that educators themselves can implement.

Below is a sample recommendation. Notice how the first sentence provides the empirical support for the recommendation.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | *This study found that there is considerable variation in thestudents' judgments of acceptability of ethical study practices, providing evidence that university students are not certain about the right way to study. Thus, teachers need to spend class time educating students about positive, effective study skills. Few students understand and use good study practices without explicit instruction (Weinstein, Meyer, Husman, Van Mater Stone, & McKeachie, 2006). Therefore, direct instruction in study skills is necessary. For example, teachers should instruct their students on how to set goals for their educationlearning as well as instruction on specific study practices such as effectively reading textbooks and studying notes for the exam. When teachers spend the time necessary for teaching study skills, then students will not be uncertain about ethical study practices and will be more prepared for their exams. As Murdock and Anderman (2006) note, students who are confident in their abilities engage in less cheating behaviors.*The final section of the paper is the Conclusion section. Briefly summarize the overall conclusion of the data analysis based on the purpose of the study. Also explain the importance of the major finding to educational practice. An example conclusion is given below.

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|  | *Literacy is a fundamental human right (UNESCO, 2006). However, learning how to read is a difficult endeavor that requires competent instructors. This study provided evidence that primary school teachers in Nigeria need additional professional development to improve their beliefs about literacy development so they can be more effective literacy instructors. Only competent, well trained teachers will help Nigerian children develop a high level of literacy that is necessary for being effective in today's world.*FORMAT OF FORMAL REPORTS FORMATThe following format should be used in the Major Written Reports. TITLE Give the title with the Authors name(s) ABSTRACTGive a short synopsis of the experiment and results. Include the values and the error associated with it. INTRODUCTIONWhy was the experiment done? What results were you trying to obtain? METHOD(s)How was the experiment designed? What equipment was used and how was it used. (If it is published a reference to where to find it, is sufficient.) Procedure used. RESULTS AND DATA ANALYSISThis should be calculations and results of calculations. The errors should be included. DISCUSSION OF RESULTS AND CONCLUSIONA discussion of the results and how the errors effect them should be done as well as improvements for the experiment should be done here. ACKNOWLEDGEMENTS AND BIBLIOGRAPHY UNIT 5 The Importance of Visual Aids in Communication[?](http://google.com/%2B1/button) Effective communication can be quite challenging, especially when making a presentation or giving a speech. In order for the communication to be effective, you must keep the attention of the listeners and deliver the information in such a way that it is fully understood. One of the most effective ways to get your message across and make it memorable is with visual aids.1. Memory Retention
	* The Office of Training and [Education](http://www.ehow.com/education/) of the U.S. Occupational Safety and [Health](http://www.ehow.com/health/) Administration has reported that psychologists and educators have found that use of visual tools led to a retention of information rate three days after a meeting or other event that was six times greater than when information is presented by the spoken word alone. Visual aids allow the speaker to use verbal and nonverbal communication to solidify the message and provide a point of reference for the mind.

Attention Span* + Everyone has a limited attention span. Once this capacity is spent, the mind will decrease its ability to retain information and listen effectively. Using visual aids refreshes the mind and engages it in a different way, renewing the attention span. Visual aids keep the mind entertained and therefore sharp and ready to receive information.

Organizing Communication* + Visual aids can be used to organize communication, making it easier to remember points made in a presentation. The introduction of a different visual aid for each point of a speech or presentation helps the mind to separate messages into smaller chunks of information. The visual aids also create a point of reference for the mind to quickly refer to when attempting to retrieve information. For example, the use of icons or labels helps trigger messages in the mind. When you see the McDonald's restaurant golden arches logo along an interstate highway, your mouth may begin to water because of they represent eating a meal.

Comprehension* + Not everyone understands concepts and information at the same rate. Some people can understand messages quickly while others need help to grasp what is being said. Visual aids are a way of further explanation. If some people are more visual than audio learners, the visual aids may be necessary for comprehension. Visual aids create repetition and the more repetition in communication, the greater the chances that your audience will understand and remember effectively.

Create a Focal Point* + Visual aids help a speaker stay on track. If there is one central visual aid that the speaker can use, then the speaker's thoughts and the audience's attention will stay on course. There's nothing worse than listening to a speaker ramble and lose the audience. Visual aids assist in avoiding such a scenario.

Types of Visual Aids Models[?](http://google.com/%2B1/button) People speak to audiences every day in schools, offices and meeting halls. Using visual aids helps a speaker to illustrate points to the audience more easily and effectively. For an audience, visual aids can make speeches easier to follow and more interesting.1. Posters
	* You can craft a poster in a variety of ways. For example, tape or paste a hand-drawn picture on poster board, or use pictures from other sources. Mount posters on either a chalkboard or an easel to keep your hands free while you're speaking.

Slide Shows* + A slide show effectively illustrates the points you make during a speech. Practice with the equipment and check to be certain that each slide is in the proper order beforehand. Keep the slide show short so that it doesn't become the main focus of your speech.

Models* + A three-dimensional model also provides a very effective visual aid. If your speech concerns a house, [animal](http://www.ehow.com/pets-and-animals/) or car, for example, you can bring in a smaller version of what you're talking about. Use the model to help the audience understand your key points better. Your model should be large enough for people in the back row to see it.

Videos* + Showing a video can also help an audience to visualize the ideas you present in a speech. The video, however, should probably be short. You should also be familiar with the video equipment used during your speech. Cue up the video to the proper starting place before you begin.

Presentation Software* + Software programs designed for presentations currently constitute a popular visual aid for speakers. Presentation software allows you to show the audience a series of pictures with text, accompanied by music or other audio. Some audiences find this more interesting than other types of visual aids.

Handouts* + Your audience can use handouts to follow along with your speech. This type of visual aid has the advantage of allowing the audience can take the handout with them after the speech. They can then review the speaker's key points later, which isn't possible with other types of visual aids.

Transparencies* + [School](http://www.ehow.com/education/) and office presentations commonly use overhead projectors and transparencies. If you use more than one transparency, check to make sure they're in the proper order. Using this type of visual aid also allows you to write on the transparency to illustrate your points during the speech

Definition of Visual Aids[?](http://google.com/%2B1/button) Visual aids are an important tool because different people respond to different learning modalities. Visual aids also add interest to a discussion. In order to effectively use visual aids, one must learn from experience what will and won't work for an audience or group of students. Visual aids can take many forms and be presented in many formats. They may be used in different settings, from classrooms to board rooms, and anywhere that information is relayed to audiences on a regular basis.1. Definition
	* A visual aid is an object or representation that may be used to clarify or enhance understanding of a concept or process. The best way to ensure success in learning is to present information in different formats for different learners.

Representational* + Visual aids may take the form of graphs, charts, tables or photographs pertaining to the information being presented. In demonstrations and group discussions, visual aids may be projected onto a screen, pasted to a board on an easel or displayed on a television. Visual aids may appear in texts and in handouts.

Literal* + Visual aids do not have to be flat or representational. They may also be the object of a discussion. For example, if a staff member at a zoo is talking to an audience about the different stages of a turtle's life cycle, he may have different turtles on hand for the audience to look at and even handle. This type of visual aid can impact the audience by taking the subject out of abstraction and adding a dimension of reality that would otherwise be missing.

Preparation* + To appropriately use a visual aid in a talk, a discussion leader, presenter or instructor must prepare far in advance. The discussion may be written verbatim or loosely outlined to allow for the discussion to flow organically. However, visual aids are ready, and the discussion leader knows when and how she will use them to carry the talk forward. A skilled presenter allows a discussion to take on its own direction while still managing to hit on all the points she planned to make.

Presentation* + Interactive visual aids (such as the turtle at the zoo) often only work in group discussions of 20 or fewer people. In larger groups, the audience can become distracted waiting for their chance to handle, [pet](http://www.ehow.com/pets-and-animals/) or hold the object. Likewise, it is important for the instructor to know the audience when making visual aid choices. Again in the example of the turtle at the zoo, if the audience is primarily composed of very young children, and if there are too many of them, touching a turtle may turn to chaos or arguments over turns. This would slow down the talk, thus detracting from the effectiveness of the aid. Meanwhile, smaller groups of the same age group may find the turtle engaging, making the turtle an effective tool that would extend the attention span of the audience and enhance their learning experience.

Oral Communication - Meaning, Advantages and LimitationsOral communication implies communication through mouth. It includes individuals conversing with each other, be it direct conversation or telephonic conversation. Speeches, presentations, discussions are all forms of oral communication. Oral communication is generally recommended when the communication matter is of temporary kind or where a direct interaction is required. Face to face communication (meetings, lectures, conferences, interviews, etc.) is significant so as to build a rapport and trust.

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| Advantages of Oral Communication* There is high level of understanding and transparency in oral communication as it is interpersonal.
* There is no element of rigidity in oral communication. There is flexibility for allowing changes in the decisions previously taken.
* The feedback is spontaneous in case of oral communication. Thus, decisions can be made quickly without any delay.
* Oral communication is not only time saving, but it also saves upon money and efforts.
* Oral communication is best in case of problem resolution. The conflicts, disputes and many issues/differences can be put to an end by talking them over.
* Oral communication is an essential for teamwork and group energy.
* Oral communication promotes a receptive and encouraging morale among organizational employees.
* Oral communication can be best used to transfer private and confidential information/matter.
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Disadvantages/Limitations of Oral Communication* Relying only on oral communication may not be sufficient as business communication is formal and very organized.
* Oral communication is less authentic than written communication as they are informal and not as organized as written communication.
* Oral communication is time-saving as far as daily interactions are concerned, but in case of meetings, long speeches consume lot of time and are unproductive at times.
* Oral communications are not easy to maintain and thus they are unsteady.
* There may be misunderstandings as the information is not complete and may lack essentials.
* It requires attentiveness and great receptivity on part of the receivers/audience.
* Oral communication (such as speeches) is not frequently used as legal records except in investigation work.
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