Rai Technology University

ENGINEERING MINDS

Research Methods For Library Science

Subject: RESEARCH METHODS FOR LIBRARY SCIENCE **Credits: 4**

SYLLABUS

Meaning of Research; Objectives of Research; Types of Research; Research Approaches; Significance of Research; Research and Scientific Method; Importance of knowing how Research is done; Research Process; Problems Encountered by Researchers in India; Meaning of Research Design; Need for Research Design; Important Concept Relating to Research Design; Different Research Designs; Basic Principles of Experimental Designs; Developing a Research Plan.

Need for Sampling; Important Sampling Distributions; Sampling Theory; Interpretation; Why Interpretation; Techniques of Interpretations; Precaution in Interpretation; Report Writing; Interviewing Techniques; Understanding Surveys; Questionnaire Design; Receiving Completed Questionnaires; Data Gathering and Analysis Techniques; Collection of Data; Evaluate and Analyze the Data.

Content Analysis: Analysis and Size; Questioning the Content; Qualitative and Quantitative Analysis; Anatomy of an on-line Focus Group; Affinity Groups; Internet Audience Research Analyzing Online Discussions: Ethics; Data and Interpretation; Reporting the Findings.

Suggested Readings:

1. Media and Communication Research Methods: an Introduction to Qualitative and Qualitative Methods; Arthur A; Sage Publications.

2. Mass Media Research: An Introduction ; Roger D. Wimmer; Joseph R. Dominick; CengageBrain.com

3. Media Research Techniques; Arthur Asa Berger; Sage Publications.

CONTENT

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LESSON 1:
INTRODUCTION - WHAT IS RESEARCH

Topics Covered

Meaning, Nature, Objectives, Significance, Importance, Overview

Objectives

Upon completion of this Lesson, you should be able to:

- Understand what is research
- Identify the Objectives and Functions of Research
- Identify the Significance and importance of research

We will first ask what research is and whether, you ought to be doing it anyway. After this, and forming the bulk of the document, we shall look at the process of research itself.

Research?

- what is it?
- should you be doing it?
- how do you do it?

Pause for a moment, think of the word 'research' - what images come into your mind? Don't try to define it, just think about what it means to you. Write down a few ideas below.

My images of research

Definitions of research

"Systematic investigation towards increasing the sum of knowledge"
(Chambers 20th Century Dictionary)

"an endeavour to discover new or collate old facts etc. by the scientific study of a subject or by a course of critical investigation."
(The Concise Oxford Dictionary)

Look at the two dictionary definitions above. Which one, if either, is closest to your images of research? The first is more lofty - looking for totally new knowledge. The Oxford definition also includes the collation of existing knowledge. The image, which immediately springs to my mind when I think of research although not what I do) is of Brains on Thunderbirds - the white-coated scientist bent over a bubbling test tube. This fits well the Chambers definition. In contrast, the 'collate old facts' definition suggests heads bent over old manuscripts in the British Library Reading Room.

These are just two types of research, we'll consider a few more ideas, but you may have thought of something different again.

The first of this list , the scientist, is perhaps the archetypal image of experimental research. Of course, the white coated technician is less well respected today than in the late 60's when Thunderbirds was first screened. A more acceptable modern image might be the botanist in the Amazonian rain forest, observing and discovering new creatures before they fall under the axe and are consumed by fire. Behavioural and experimental psychologists would also fall under this general heading.

The social scientist's methods are different from the laboratory (although quite similar to the botanist). They include interviews, observation and the collection of data. All of which will be needed at very least during your requirements elicitation from your client. Notice how the world of the social scientist is far less controlled than that of the laboratory or even the botanist. You can put a beetle in a 'bug box' and examine it, but social situations collapse when dissected too closely. The ecologist has similar problems.

Historical research corresponds to the British Library image, reading original sources and other peoples books and papers. Of course it does not stop there. The aim of the historian is to understand the historical processes as well as to record it. One of the key things a historian has to recognise is that all the sources are biased - written from a particular perspective by a particular person for some particular purpose. You will be faced with similar issues, albeit from modern sources.

Types of research

- the scientist
- the social scientist
- the historian
- the journalist
- R & D

Journalists operate in a somewhat similar fashion. They do not expect to generate new knowledge (although they may occasionally generate fiction). Instead, they cull from exiting sources: people, books, other newspaper articles etc., in order to write about their chosen subject. Note the range of sources they must draw on. Also note that they will not attempt to thoroughly understand the subject they are writing about, nor do they attempt total coverage of the area. They have a goal, to write an article, and they find out just enough to do that job. The academic must take a deeper and wider perspective than this,

but do not underestimate the skill of the journalists. When some event happens they have to find out enough within a few hours to be able to write cogently about it.

Finally we have industrial Research and Development. What is the research element in it? Well, some firms do have 'blue skies' research laboratories whose job is to find exciting new things, rather like (but better resourced) than a University research atmosphere. However, most do not have sufficient spare resources to use for this sort of enterprise. Instead, the job of the commercial researcher is to draw on existing knowledge and bring it to bear on a particular problem. This may involve creating something new, but usually by some adaptation of an existing solution. Like the journalist, the industrial researcher is very goal directed, but has to do more. The journalist merely has to gather enough information to write the article, the industrial researcher must understand the information in order to apply it to a new situation, that is, the product under development.

Clearly, the R & D situation is closest to your project as you too have a client and a product to produce. However, the situation is not identical. Your aim is not only to produce a product, but also to obtain a degree. Although your time may hardly seem leisurely, you do in fact have more 'leisure' to reflect upon the work you are doing, taking a more academic angle. In particular, this might mean being somewhat broader in your searches for information and considering more alternatives to a problem, even after you have found a solution, which works.

So, given these definitions of research and examples of researchers, should you be doing research in your project, or should that be left to the PhD students and academics. And, if you should be doing research, which of the above types should it be.

The project

- integrative
- independent
- interesting
- intellectually challenging
- ? innovative
  not necessary but good

Let's think about your project in terms of some 'I' words. First it should be integrative, bringing together knowledge from different areas. In most of your courses you consider some particular aspect of computing, business or mathematics. In your project you must use knowledge from a variety of areas and sources. Some things you may already know from a course you have done. Other things might need further investigation.

The project is an independent piece of work which is interesting to you. As it is YOU doing the work, you are only expected to produce what is reasonable for a final year undergraduate.

However, as it as an academic project, part of an honours degree, it must also be intellectually challenging. Again, not the minimal solution to a problem, but one that involves significant academic work before hand and analysis of your results after. One would hope that this will also contribute to making the project interesting.

To be integrative and intellectually challenging the project must clearly involve research in the sense of 'collating old facts'. That is, aspects of the British Library image combined with the focused attitude of industrial R & D.

But, the crunch, should the project be innovative - breaking new ground, extending the sum of human knowledge, generating new and novel solutions?

Well, it would obviously be nice to develop some new algorithm or discover some new fact about IT, and the best projects will involve some level of innovation, but this is an undergraduate and not a research degree, so it is not necessary. On the other hand, it would be hard to apply even standard techniques to a new problem without there being something novel about it. Every situation is slightly different and you will have to use a level of ingenuity (another 'I' word) in dealing with it.

So, given you should be doing some research, how do you go about it? You all know the old saying: "you should learn from your mistakes". Indeed, this will be an important part of your final report. You will have to reflect upon what did and did not work. You will be expected to diagnose your problems and learn from them. However, you do not have enough time to make too many mistakes, so you should avoid as many as possible.

it is wise to learn from
your own mistakes

it is shrewd to learn from
other people's mistakes

How do you avoid making your own mistakes? Well although it is good to learn from your own mistakes, it is shrewd to learn from other peoples mistakes. Find out what other people have done right and done wrong before making the same mistakes or even working hard to discover the same good things.

To do this you must study other people's work before embarking on your own - that is, more research. But it is not all of the British Library kind.

Other people's work

- what they write
  books, articles, manuals
- what they say
  interviews, discussion
- what they make
  software, organisations

You obviously need to read what other people have written: books, academic papers, newspaper articles etc. In addition you need to consider what they say by interviews, discussions etc. Finally, examine what they make - in your context primarily software, but also possibly the organisational structures, paper based systems etc.

Assumptions of scientific method David Easton has laid down certain assumptions and objectives of scientific method. They are regularities, verification, techniques, quantification, values systematisation, pure science, and integration.

1. Regularities

Scientific method believes that the world is regular and phenomena occur in patterns. Further there are discernible uniformities in political and social behaviour which can8be expressed as generalisation which are capable of explaining and predicting political and social phenomena.

2. Verification

Scientific method presupposes that knowledge should consist of propositions that have been subjected to empirical tests, and that all evidence must be based on observation.

3. Techniques

Scientific method attaches a great deal of importance to the adoption of correct techniques for acquiring and interpreting data. In order to make the research self conscious and critical about the methodology, there is a need for the use of sophisticated tools-like multivariate analysis, sample survey and mathematical models, simulation and so on.

4. Quantification

Science necessarily involves mathematical formulas and measurements. Theories are not acceptable if they are not expressed in mathematical language. All observations must ‘be quantified because quantification has advantages in terms of precision and manageability.

5. Values

Values and facts are. two separate things. Science, it is claimed, is value free. It is not concerned with what is “good”, “right”, “proper” “desirable” etc. “Good” and “bad” is the concern of philosophers. Scientific enquiry to be objective, therefore, must be value free.

6. Systematisation

Scientific study demands that research should be systematic. it means that it must be theory-oriented and theory directed. The theory and research should form interrelated parts of a coherent and orderly body of knowledge.

7. Pure Science

Scientific minded social scientists insist on pure science approach. They agree that theoretical understanding may lead to an application of this knowledge to problems of life. Both the theory and its application are parts of.scientific enterprise.

8. Integration

Finally, there is the question of integration of each social science with other social sciences. The behaviouralists agree that man is a social animal and while one may try to draw boundary lines between the social, political, economic, cultural and other activities, none of these activities can be understood without placing them in the wider context of his entire life.

In experimental design, the researcher can often exert a great deal of control over extraneous variables and thus ensure that the stimuli in the experimental conditions are similar. In a laboratory experiment, one has the opportunity to vary the treatment in a systematic manner, thus allowing for isolation and precise specification of the important difference.

Assignments

1. The task of defining the research problem often follows a sequential pattern. Explain?
2. What do you mean by research? Explain its significance in modern times?

LESSON 2:
RESEARCH DESIGN

Topics Covered

Research Design, importance, principles, Approaches

Objectives

Upon completion of this Lesson, you should be able to:

- What is research design
- Identify the importance of research design
- Know the principles of RD
- Different Research approaches

The objective of science is to explain reality in such a fashion so that others may develop their own conclusions based on the evidence presented. The goal of this handbook is to help you learn how to conduct a systematic approach to understanding the world around us that employs specific rules of inquiry; what is known as the scientific model.

The scientific model helps us create research that is quantifiable (measured in some fashion), verifiable (others can substantiate our findings), replicable (others can repeat the study), and defensible (provides results that are credible to others—this does not mean others have to agree with the results). For many the scientific model may seem too complex to follow, but it is often used in everyday life and should be evident in any research report, paper, or published manuscript. The corollaries of common sense and proper paper format with the scientific model are given below.

Corollaries among the Scientific Model, Common Sense, and Paper Format

Scientific Model	Common Sense	Paper Format
Research Question	Why	Intro
Develop a theory	Your answer	Intro
Identify variables	How	Method
Identify hypotheses	Expectations	Method
Test the hypotheses	Collect/analyze data	Results
Evaluate the results	What it means	Conclusion
Critical review	What it doesn't mean	Conclusion

Overview of First Four Elements of the Scientific Model

The following discussion provides a very brief introduction to the first four elements of the scientific model.

1. Research Question

The research question should be a clear statement about what you intend to investigate. It should be specified before research is conducted and openly stated in reporting the results. One conventional approach is to put the research question in writing in the introduction of a report starting with the phrase " The purpose of this study is . . . ." This approach forces the researcher to:

a. identify the research objective (allows others to benchmark how well the study design answers the primary goal of the research)

b. identify key abstract concepts involved in the research

Abstract concepts: The starting point for measurement. Abstract concepts are best understood as general ideas in linguistic form that help us describe reality. They range from the simple (hot, long, heavy, fast) to the more difficult (responsive, effective, fair). Abstract concepts should be evident in the research question and/or purpose statement. An example of a research question is given below along with how it might be reflected in a purpose statement.

Research Question: Is the quality of public sector and private sector employees different?

Purpose statement: The purpose of this study is to determine if the quality of public and private sector employees is different.

2. Develop Theory

A theory is one or more propositions that suggest why an event occurs. It is our view or explanation for how the world works. These propositions provide a framework for further analysis that are developed as a non-normative explanation for "What is" not "What should be." A theory should have logical integrity and includes assumptions that are based on paradigms. These paradigms are the larger frame of contemporary understanding shared by the profession and/or scientific community and are part of the core set of assumptions from which we may be basing our inquiry.

3. Identify Variables

Variables are measurable abstract concepts that help us describe relationships. This measuring of abstract concepts is referred to as operationalization. In the previous research question "Is the quality of public sector and private sector employees different?" the key abstract concepts are employee quality and employment sector. To measure "quality" we need to identify and develop a measurable representation of employee quality. Possible quality variables could be performance on a standardized intelligence test, attendance, performance evaluations, etc. The variable for employment sector seems to be fairly self-evident, but a good researcher must be very clear on how they define and measure the concepts of public and private sector employment.

Variables represent empirical indicators of an abstract concept. However, we must always assume there will be incomplete congruence between our measure and the abstract concept. Put simply, our measurement has an error component. It is unlikely

to measure all aspects of an abstract concept and can best be understood by the following:

Abstract concept = indicator + error

Because there is always error in our measurement, multiple measures/indicators of one abstract concept are felt to be better (valid/reliable) than one. As shown below, one would expect that as more valid indicators of an abstract concept are used the effect of the error term would decline:

Abstract concept = indicator1 + indicator2 + indicator3 + error

Levels of Data

There are four levels of variables. These levels are listed below in order of their precision. It is essential to be able to identify the levels of data used in a research design. They are directly associated with determining which statistical methods are most appropriate for testing research hypotheses.

Nominal: Classifies objects by type or characteristic (sex, race, models of vehicles, political jurisdictions)

Properties

1. categories are mutually exclusive (an object or characteristic can only be contained in one category of a variable)
2. no logical order

Ordinal: classifies objects by type or kind but also has some logical order (military rank, letter grades)

Properties

1. categories are mutually exclusive
2. logical order exists
3. scaled according to amount of a particular characteristic they possess

Interval: classified by type, logical order, but also requires that differences between levels of a category are equal (temperature in degrees Celsius, distance in kilometers, age in years)

Properties:

1. categories are mutually exclusive
2. logical order exists
3. scaled according to amount of a particular characteristic they possess
4. differences between each level are equal
5. no zero starting point

Ratio: same as interval but has a true zero starting point (income, education, exam score). Identical to an interval-level scale except ratio level data begin with the option of total absence of the characteristic. For most purposes, we assume interval/ratio are the same.

The following table provides examples of variable types:

Variable	Level
Country	Nominal
Letter Grade	Ordinal
Age	Ratio
Temperature	Interval

Reliability and Validity

The accuracy of our measurements are affected by reliability and validity. ***Reliability*** is the extent to which the repeated use of a measure obtains the same values when no change has occurred (can be evaluated empirically). ***Validity*** is the extent to which the operationalized variable accurately represents the abstract concept it intends to measure (cannot be confirmed empirically-it will always be in question). Reliability negatively impacts all studies but is very much a part of any methodology/operationalization of concepts. As an example, reliability can depend on who performs the measurement (i.e., subjective measures) and when, where, and how data are collected (from whom, written, verbal, time of day, season, current public events).

There are several different conceptualizations of validity. ***Predictive validity*** refers to the ability of an indicator to correctly predict (or correlate with) an outcome (e.g., GRE and performance in graduate school). ***Content validity*** is the extent to which the indicator reflects the full domain of interest (e.g., past grades only reflect one aspect of student quality). Construct validity (correlational validity) is the degree to which one measure correlates with other measures of the same abstract concept (e.g., days late or absent from work may correlate with performance ratings). ***Face validity*** evaluates whether the indicator appears to measure the abstract concept (e.g., a person's religious preference is unlikely to be a valid indicator of employee quality).

4. Identify Measurable Hypotheses

A hypothesis is a formal statement that presents the expected relationship between an independent and dependent variable. A dependent variable is a variable that contains variations for which we seek an explanation. An independent variable is a variable that is thought to affect (cause) variations in the dependent variable. This causation is implied when we have statistically significant associations between an independent and dependent variable but it can never be empirically proven: Proof is always an exercise in rational inference.

Association

Statistical techniques are used to explore connections between independent and dependent variables. This connection between or among variables is often referred to as association. ***Association*** is also known as covariation and can be defined as measurable changes in one variable that occur concurrently with changes in another variable. A ***positive association*** is represented by change in the same direction (income rises with education level). ***Negative association*** is represented by concurrent change in opposite directions (hours spent exercising

and % body fat). ***Spurious associations*** are associations between two variables that can be better explained by a third variable. As an example, if after taking cold medication for seven days the symptoms disappear, one might assume the medication cured the illness. Most of us, however, would probably agree that the change experienced in cold symptoms are probably better explained by the passage of time rather than pharmacological effect (i.e., the cold would resolve itself in seven days irregardless of whether the medication was taken or not).

Causation

There is a difference between determining association and causation. Causation, often referred to as a relationship, cannot be proven with statistics. Statistical techniques provide evidence that a relationship exists through the use of significance testing and strength of association metrics. However, this evidence must be bolstered by an intellectual exercise that includes the theoretical basis of the research and logical assertion. The following presents the elements necessary for claiming causation:

External and Internal Validity

There are two types of study designs, experimental and quasi-experimental.

Experimental: The experimental design uses a control group and applies treatment to a second group. It provides the strongest evidence of causation through extensive controls and random assignment to remove other differences between groups. Using the evaluation of a job training program as an example, one could carefully select and randomly assign two groups of unemployed welfare recipients. One group would be provided job training and the other would not. If the two groups are similar in all other relevant characteristics, you could assume any differences between the groups employment one year later was caused by job training.

Whenever you use an experimental design, both the internal and external validity can become very important factors.

Internal validity: The extent to which accurate and unbiased association between the IV and DVs were obtained in the study group.

External validity: The extent to which the association between the IV and DV is accurate and unbiased in populations outside the study group.

Quasi-experimental: The quasi-experimental design does not have the controls employed in an experimental design (most social science research). Although internal validity is lower than can be obtained with an experimental design, external validity is generally better and a well designed study should allow for the use of statistical controls to compensate for extraneous variables.

Types of Quasi-experimental Design

1. Cross-sectional study: obtained at one point in time (most surveys)
2. Case study: in-depth analysis of one entity, object, or event
3. Panel study: (cohort study) repeated cross-sectional studies over time with the same participants
4. Trend study: tracking indicator variables over a period of time (unemployment, crime, dropout rates)

LESSON 3:
RESEARCH PLANNING

Topics Covered

Audience research, Planning research, understanding audiences

Objectives

Upon completion of this Lesson, you should be able to:

- Types of audience research.
- How research is done: an overview.
- Planning a research project.
- Some findings about audiences

Planning Audience Research

Audience research is a systematic and accurate way of finding out about your audience. There are two main things that audience research can do:

1. estimate audience sizes, and
2. discover audience preferences.

Radio and TV stations are unique in having a special need for audience research: this is the only industry that cannot accurately count its audience. A factory will always count the number of products it sells. A newspaper will (or could) always know its paid circulation.

An organization that provides services rather than products (e.g. a hospital) is able to accurately count the number of people who walk through its doors. But radio and television programs are given away free to their audiences, and there is no way of measuring how many people tune into a program - without audience research.

For this reason, audience research was one of the first forms of market research. When radio became popular in rich countries in the 1920s, audience research followed soon afterwards. In countries where broadcasters depended on commercial revenue, audience surveys are done to find out how many people would hear a particular advertisement.

In countries with public radio, such as Britain and New Zealand, audience research began in the 1930s, seeking information from listeners. New Zealand's first audience survey was in 1932. Postcard questionnaires were sent out to households with radio licenses, asking questions such as "Do you listen on a crystal set or a valve set?" and "Do you dance to broadcast dance music?"

Since those days, audience research has moved far beyond radio and television. The current growth area is internet audience research. And, though printed publications have readers rather than audiences, the same methods apply.

Methods of Audience Research

The most common method of audience research is the survey: a group of people is selected, they are all asked the same questions, and their answers are counted. But as well as surveys, there are many other methods of audience research, including observation, mechanical measurement (people-meters) and qualitative research.

Audience research methods can be applied for any activity with audiences: not only radio and television stations, but also print media, artistic activities, and (most recently) the internet. The methods described in this book apply to all of these, as well as to the study of societies (social research) and economic behaviour (market research).

Audience Research, Social Research and Market Research

Audience research, social research, and market research share a common body of methods, with slight variations. So when you know how to do audience research, you will also know how to carry out many types of market research and social research.

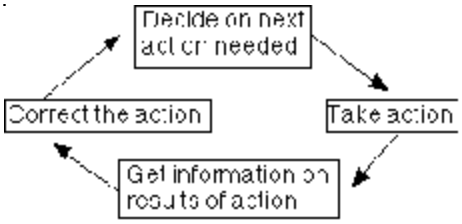
Audience Research and Management Systems

The importance of feedback for any activity to be carried out well, some form of feedback is needed. Try walking with your eyes shut, and you will soon bump into something. Even without your thinking about it, the feedback from your eyes is used to correct your steps. In the same way, any organization that does not keep its eyes open is likely to meet with an accident.

In the media industries, the equivalent to walking is broadcasting the programs. The equivalent of watching where you are going is audience research.

But when you are walking, you are doing more than simply move your legs, and watch where you are going. You will also have decided where you are walking to. Depending on what you see, you will adjust your steps in the desired direction. And of course, at any time you may change your direction of walking.

Whether the activity is walking or broadcasting, you can draw a diagram of a "feedback loop", like this:



In recent years, the study of management methods has produced a system known as "strategic management." It follows the principles shown in the above diagram. Notice the bottom box, labelled "Get information on results of action". Audience research is part of that box.

The importance of knowing what you're doing, and why you're doing it

The Logical Framework

The Logical Framework method (Log Frame for short) begins by creating a hierarchy of goals. It works like this:

1. State the main goal that you want the project to accomplish.

   For example, to eliminate malaria in a region.

2. Then consider what other goals will need to be achieved to meet the first goal.

   In the case of the anti-malaria project, the three objectives could be:

   a. To encourage people to avoid being bitten by mosquitoes;

   b. To make anti-malarial drugs readily available

   c. To eliminate malaria-carrying mosquitoes.

3. Now consider what must to be achieved to meet each of those goals…and so on.

   To continue the anti-malaria example, the goals for 2a could include

   a1. Making anti-mosquito equipment widely available

   a2. Encouraging people to wear enough clothing at times when mosquitoes are feeding

   a3. Advising people on how to avoid being bitten by mosquitoes.

The process continues, adding more and more levels. The highest levels are part of the initial plan. The lower levels are activities rather than goals. At the lowest possible level, a worker on the project might work towards goal by visiting a particular school on a particular day, and giving the teachers information that could be used in lessons..

The whole structure can be drawn like a tree, with the single main goal at the bottom, and each branch dividing into more and more goals, objectives, strategies, aims, purposes, or activities. No matter what these are labelled, they are all a type of plan. (With the tree analogy, notice that the trunk is what you'd call the highest level - it's really an upside-down tree.)

This tree-like approach works well for a project with a very specific goal, such as the anti-malaria campaign. But organizations with audiences usually don't have a single main purpose. Many of them have several purposes, which are not clearly defined: nothing as simple and as measurable as "reduce the level of malaria in this region." For public companies, it's a little easier: in many countries their stated goal is to maximize the value of their shares. At least, that's what they say: but in many cases their shareholders could do better if the organization was closed down and the money invested in a more profitable concern. My own theory, after observing what really happens, is that the primary purpose of any organization is to survive.

And for an organization with audiences, its primary purpose (after survival) is to be creative: to provide enough entertaining, inspiring, informative, and educational material that its audience will stay with it - and the organization will survive..

For example, a television channel may decide to telecaste a program about how to avoid catching malaria. The program's purpose for the anti-malaria campaign is clear, but what purpose does it serve for the channel? The channel could say "we are broadcasting this program because we like to spend an hour a week on public health" - but why is that? In fact, telecast of a program will probably serve a number of different purposes, because organizations with audiences usually have multiple, fuzzy, and overlapping goals.

To check that the tree-hierarchy makes sense, you can create an intent structure. This is done in the opposite way from forming the hierarchy of goals. You begin at the top level of the tree (the leaves, not the trunk). For each activity, consider "Why should we do this? What will it achieve?"

For most organizations with audiences, their logical framework diagrams won't look like trees, because each activity (program, article, etc) will serve several purposes. A tree covered in cobwebs might be a better example.

To complete the Logical Framework, several questions have to be answered for each goal and sub-goal:

- What resources are required to achieve this purpose?
- What constraints may prevent it; under what conditions will it succeed?
- How will its success be evaluated?

This last question is where audience research comes in. Most activities of an organization with an audience can't be evaluated without doing audience research.

When you do research planning you need to know well in advance what type of reseach are you doing and for whom? To get a desired method you should be wellversed with the different types of research. The following matter gives you a general idea of different types of research.

Research is a process, which is almost impossible to define. There is a great deal of mystique about it and reluctance on the part of many to consider undertaking it. It can cover a wide range of studies, from simple description and investigation to the construction of sophisticated experiments. A clear objective provides the basis of the design of the project, for the selection of the most appropriate methods. The basic skill lies in selecting the most appropriate methods for the task, in hand. It is possible to build in experience and to learn from past mistakes but each project is different and requires a fresh approach.

Research is carried out for two main reasons; as a means to an end, or as an end in itself. Both are perfectly valid, but each entails a rather different approach to the definition of the problem at hand and to the formulation of objectives. However, before the objective can be specified, it is necessary to define what the problem is, and before that can be done there must be a clear understanding of why the research is being considered.

a. Research as a means to an end Solving specific problem is one of the most common tasks, which the researcher is called upon to perform, but for the researcher it presents the most difficult projects. Problems are seldom simple and usually have many dimensions; there is a need to work quickly and to produce results upon which action can be taken and it is necessary to keep the scale of the research. in tune with the size of the problem.

Information is often required, not so much to solve a specific problem as simply to remove uncertainty, or to increase

a Knowledge or understanding. A completely different form of research is that which might be called experimental. The research is concerned with establishing what would happen if a change was made to the existing arrangements or if something completely new was introduced. It is possible to construct a model which can be used for tests but it is much more common to bring about the change, perhaps doing it in only one part of the system, and to measure what happens. Very closely related to this is research which seeks to establish whether it is possible to achieve something, or to bring about a change in something, by adopt a given course of action. Before embarking on research as the means to an end, it is wise to be absolutely sure where the end is and what it involves.

b. Research as an end in itself : This type of research can, however, be divide into two main categories. There is research which is primarily based on a detailed and analytical review of the work of others. This is the type of work which usually leads to a Mailler'S level qualification. The next stage up the academic ladder is the type of original research which leads to a Ph.D. Both types of research call for careful preparation. A crucial factor determining the success or failure of the work is the scope of the project and the range to be covered. Usually it is necessary to refine an initial idea down to something which is manageable. There should be sufficient literature on the subject to provide the basis for the research, but not so much that it is impossible to handle it within the time allowed. It may be necessary to take account of he historical dimension of the project, perhaps going back to original source documents. This can be time-consuming and should not be under-estimated. A careful literature search should reveal the existence of other, related work, which needs to be taken into account.

c. Relevance of research : Usually research inculcates scientific and inductive thinking and it promotes development of logical habits of thinking and organisation. Research also provides the basis for nearly all government policies in our economic system. Research has its special significance in solving various operational and planning problems of industry and business. Research has its own contribution to the existing stock of knowledge making for its advancement. It is the pursuit of truth with the help of study, observation, comparison and experiment. Thus, research involves a systematic process of advancement in knowledge whereby one might start with the knowledge of details, and gain an understanding of the general principles underlying them.

According to Charles Peirce, the great American philosopher, there are four methods of knowing about facts or fixing our beliefs about various matters. These are tenacity, intuition, authority and science.

Fred N. Kerlinger defines scientific research as a systematic, controlled, empirical and critical investigation of hypothetical propositions about the presumed relations among natural phenomena.

Berelson and Steiner define science as a form of enquiry in which procedures are public, definitions are precise, data collection is objective, findings are replicable.

Pure research (which is also known as basic, theoretical or 1 fundamental research) always aims at enriching the theory by unraveling the untold mysteries of nature. On the other hand, _ applied or empirical research always aims at enriching the application of the theory by discovering various new uses to, which the findings of pure research may be put and by showing the limitations of these findings. Following are some points of difference between pure research and applied research:

	Pure research	Applied research
1.	Aims to illustrate the theory by enriching the	Aims to solve a problem by enriching the field of
	basis of a discipline.	application of a discipline.
2.	Studies a problem usually from the focus of one	Often several disciplines collaborate for solving the
	discipline.	problem.
3.	Seeks generalizations.	Often studies individual cases without the objective
		to generalize.
4.	Works on the hypothesis that variables not measured	Recognizes that other variables are constantly changing.
	remain constant.	
5.	Tries to say why things happen.	Tries to say how things can be changed.
6.	Reports in technical language of discipline.	Reports in common language.

It should be noted, however, that the above difference between 'pure' and 'applied' research is not as clear-cut in the social sciences as it is in the natural sciences.

Categories of Research

There are different categories of research; basic vs applied; descriptive vs analytical; quantitative vs qualitative; conceptual vs empirical and so on.

Modern Methods

Following are the modern methods currently followed in research.

i. Basic vs Applied Research

Research can either be basic (fundamental or pure) or applied. By basic research is meant the investigation of problems in order to further and develop existing knowledge. It is mainly concerned with the generalisations and with the formulation of a theory. Gathering knowledge for knowledge's sake is termed

basic research. Research concerning some natural phenomenon or relating to pure mathematics or physics or astrology are examples of fundamental research. Similarly, research studies concerning the behaviour characteristics of individuals with a purpose of drawing some generalisation about their social learning, memory pattern, intelligence level are also examples of applied research.

ii. Descriptive vs Analytical Research

The descriptive research deals to depict the present state of affairs as it exists without having any control over change of variables. The main characteristics of this method is that the researcher has no control over the variables. He can only report what has happened or what is happening. For example, the number of students enrolled in medical/engineering colleges during 1990-1995, frequency of shopping, preferences of people etc. In analytical research, on the other hand, the researcher has to use facts or information already available, and analyze these to make a critical evaluation of the material.

iii. Quantitative vs Qualitative Research

Quantitative research is based on the measurement of quantity or amount. It is applicable to phenomenon that can be expressed in terms of quantity. Qualitative research is concerned with qualitative phenomenon. For example, studying what makes I people to work hard, what makes people to be so lazy will lead to arriving at some qualitative results such as challenging jobs, I attractive salary, opportunities to grow within the organisations perhaps are the reasons for eliciting hard work. Qualitative - research is specially important in the behavioural sciences where the aim is to discover the underlying motives, interests, personality, attitudes of human beings.

iv. Conceptual VS Empirical

Conceptual research is related to some abstract ideas or theory. It is generally used by philosophers and thinkers to develop new concepts or to interpret the existing ones. Empirical research is data-based research coming up with conclusions which are capable of being verified by observation or experiment. In this research, the researcher should collect enough data to prove or disprove his hypothesis. Empirical research is appropriate when proof is sought that certain 'variables affect other variables in some way. Evidence gathered through experiments or empirical studies is considered to be the most powerful support possible for a given hypothesis.

v. Laboratory Research

The emphasis in laboratory research is to control certain variables in such a way to observe the relationship between two or three other variables.

vi. Clinical or Diagnostic Research

This type of research follows case study methods or in - depth approaches to reach ,the basic casual relationship. This research takes only a few samples and studies the phenomenon in depth and observe the effects.

vii. Exploratory Research

The objective of exploratory research is the development of hypothesis rather than their testing.

viii. Historical Research

This type of research utilizes historical sources like documents, literature, leaflets, etc., to study events or ideas of the past. The research methodology can be divided broadly into two categories traditional or pre-scientific methods, and scientific methods.

B. Traditional methods

Traditional methods are divided into four aspects, namely philosophical, institutional, legal and historical.

i. Philosophical Methods

Philosophical method is the oldest of all the methods. It is through application of this method that people have been understanding human society. Secondly, philosophical approach is not a narrowly focused one. Instead it takes an overall view of human development but draws metaphysical conclusions.

ii. Institutional Approach

Institutional approach is the second long, standing approach to enquiring into the nature of institutions. The concept institution covers a gamut of institutional structures like parliament, secretariat, legal courts, educational institutions, etc and it also, covers certain abstract institutions like property, family and castle.

III. Legal Approach

Legal approach is different from institutional approach. It is law that explains the nature of an institution. In the second place, it is law that controls the institutions. Legal approach have several inadequacies. Firstly, law is very remotely related to many of the human activities. Secondly, law does not explain the location of power. Legal position may give some amount of power to an individual which is defined, but sometimes individuals, without holding any legal position exercise tremendous amount of power. Thirdly, legal approach does not explain the character of social class - the nature of economically dominant groups over all other social groups.

Fourthly, the ideologies of the individuals and groups do playa very important role in moulding social institution and social systems.

iv. Historical Approach

History as actuality means all that has been felt thought, imagined, said and done by human beings as in relation to one another and to their environment since the beginning of mankind. History as record consists of documentary and other primary evidence of history as actuality. Historical approaches may broadly be divided into two: history as record of facts; and history as record of facts and interpreting the facts from a correct perspective. In other words, history is the record of heroic stories of individuals and a chronological study of human development in relation to nature and other institutions. There are several types of documents to be consulted in the historical method. Archival data is most important of all. There are three reasons for this. First, more and more statistical census are gathered by governments, offices, industries and others. Secondly, more and more such data have become readily available, partly because of the increasing interest and demand shown by the public and research community and because of computerisation of data. Thirdly, the number of data banks making available data has increased. Personal documents

including life histories of people, public documents including life histories of people, public and private documents like diariesh secret files, literature, newspapers etc., are the other important sources of information for those who use historical method.

C. Scientific Method

Scientific method is a branch of study which is concerned with observed facts systematically classified, and which includes trustworthy methods for discovery of truths. The method of enquiry is a very important aspect of science; perhaps this is the most significant feature. Scientific method alone can bring about confidence in the validity of conditions.

George Lundbery defines scientific method as one consisting of systematic observation, classification, and interpretation of data. The main difference between day-to-day generalisation and the scientific method lies in the degree of formality, rigorousness, verifiability and general validity of the latter. Observation, hypothesis and verification are the three important components of scientific enquiry.

Assumptions of scientific method David Easton has laid down certain assumptions and objectives of scientific method. They are regularities, verification, techniques, quantification, values systematization, pure science, and integration.

1. Regularities

Scientific method believes that the world is regular and phenomena occur in patterns. Further there are discernible uniformities in political and social behaviour which can8be expressed as generalization, which are capable of explaining and predicting political and social phenomena.

2. Verification

Scientific method presupposes that knowledge should consist of propositions that have been subjected to empirical tests, and that all evidence must be based on observation.

3. Techniques

Scientific method attaches a great deal of importance to the adoption of correct techniques for acquiring and interpreting data. In order to make the research self conscious and critical about the methodology, there is a need for the use of sophisticated tools-like multivariate analysis, sample survey and mathematical models, simulation and so on.

4. Quantification

Science necessarily involves mathematical formulas and measurements. Theories are not acceptable if they are not expressed in mathematical language. All observations must ‘be quantified because quantification has advantages in terms of precision and manageability.

5. Values

Values and facts are two separate things. Science, it is claimed, is value free. It is not concerned with what is “good”, “right”, “proper” “desirable” etc. “Good” and “bad” is the concern of philosophers. Scientific enquiry to be objective, therefore, must be value free.

6. Systematisation

Scientific study demands that research should be systematic. it means that it must be theory-oriented and theory directed. The theory and research should form interrelated parts of a coherent and orderly body of knowledge.

7. Pure Science

Scientific minded social scientists insist on pure science approach. They agree that theoretical understanding may lead to an application of this knowledge to problems of life. Both the theory and its application are parts of scientific enterprise.

8. Integration

Finally, there is the question of integration of each social science with other social sciences. The behaviouralists agree that man is a social animal and while one may try to draw boundary lines between the social, political, economic, cultural and other activities, none of these activities can be understood without placing them in the wider context of his entire life.

In experimental design, the researcher can often exert a great deal of control over extraneous variables and thus ensure that the stimuli in the experimental conditions are similar. In a laboratory experiment, one has the opportunity to vary the treatment in a systematic manner, thus allowing for isolation and precise specification of the important difference.

LESSON 4:

Topics Covered

Audience research, Planning research, understanding audiences

Objectives

Upon completion of this Lesson, you should be able to:

- Types of audience research.
- How research is done: an overview.
- Planning a research project.
- Some findings about audiences

The Need for Audience Research

If you have an audience, and you don't do audience research, this is equivalent to walking with your eyes shut. But many organizations (even those with audiences) survive without doing audience research. How do they survive?

- Even if an organization doesn't do systematic audience research, it usually has some informal method of collecting feedback, and sometimes these informal methods seem to work well.
- When funding is guaranteed, regardless of audience size, broadcasters can survive without audiences. Many shortwave services have tiny or unknown audiences, but governments fund them out of national pride.
- Organizations that rely on revenue from their audiences often use the amount of revenue as a substitute for audience research. This applies to most small businesses. As long as they keep making money, they feel no need for audience research. But when the flow of money unexpectedly declines, the businesses often feel the need for market research. Income flow will tell the owner *what* is happening, but not why.

If you want to know *why* audiences react as they do, you need audience research - or market research, or social research, depending on your industry. In larger organizations, where information about revenue is often delayed, or is complicated by other factors, regular audience research (or market research) can often provide an early indication of a change in the habits of the audience (or the customers).

Varieties of Audience Research

Not all information-gathering is research. To qualify as research, information-gathering must be systematic and unbiased. It must cover the entire audience of interest. It should also avoid subjectivity: if two people do the same research, they should arrive at the same results.

Some politicians believe they can do public opinion research (yet another form of audience research) by talking to taxi drivers, because they believe that taxi drivers are typical of the whole population. Of course, this *might* be true, but it probably isn't. In developed countries, most taxi drivers are men, fairly young, and with below-average education. If you assume that the opinions of taxi drivers are typical, you are taking a big risk. Audience research greatly reduces this risk.

Audience Measurement

As mentioned above, radio and television have special need of audience research - simply to find out what most other organizations already know: how widely their services are used. Thus audience measurement is the most widely used form of audience research.

There's an important difference between audience research and the customer information that non-broadcasting organizations gather. These other organizations collect information (mostly financial) about all their customers. If they calculate a total sales figure, it should be completely accurate. Audience research, because it relies on samples, can't be accurate to the last digit - but nor does it need to be.

If proper sampling procedures are used, you can estimate for a given sample size (number of people interviewed) the range of accuracy for any audience estimate.

A newspaper can make a statement like this: "Last week we sold 53,234 copies."

A broadcaster, after doing an audience survey, could make a statement like this: "Last week, the best guess at our audience is 52,000 listeners - but there is a 5% chance that the true figure is smaller than 49,000 or larger than 55,000." Interviewing more people can reduce the margin of error (3,000 either way, in this example), but it is always present whenever information is based on a sample, instead of the whole population. The larger the number of interviews, the smaller the margin of error.

Audience measurement is done in two main ways:

1. Surveys, asking people which programs or stations they listened to, at which times, on which days.
2. Meters attached to TV sets (or occasionally to radios) , which record the stations the set is tuned to, at which times, on which days.

Meters are more accurate than memories, but are very expensive. In most developed countries the television industry is large enough and rich enough to afford meters, particularly when there are commercial stations whose revenue depends on accurate audience information. But in developing countries, and those without commercial broadcasters, surveys are the commonest method of audience measurement.

Audience measurement can find out only that a person (or household) was tuned into a program at a particular time. It provides no information about the amount of attention being paid to the program, or opinions about the program, or other matters related to the program.

Evaluation

Sometimes a program has a clear purpose. For example, a radio program on health education might try to educate people on how to prevent malaria. If that is the only purpose of the program, its success can be evaluated using audience research methods.

Outcomes from the program might include people being aware of the program, people listening to it, people acting on its advice, and eventually a fall in the number of people who have malaria. (Of course, if the malaria rate does drop, there could be many other reasons for this too. When something happens, there are usually many different reasons.)

Another type of evaluation is testing a program not for social effectiveness (as above) but to simply improve programs. For example, a TV channel will make a pilot program and show it to a small group of people. These viewers will be asked questions about the program, and depending on their reaction, the program might be broadcast, cancelled, or changed.

Understanding Your Audience

If you don't want to measure the audience or evaluate a program, why would you do audience research? A very important reason is to understand your audience. The more you know about the types of people in your audience, their backgrounds, their interests, and their preferences, the better you can be at making programs to suit them.

Research as Program Content

Another reason for doing research is to use the results as program content. Some stations, before an election, carry out opinion polls, in which voters are asked who they intend to vote for. The results are then broadcast.

How Research is Done: An Overview

Let's begin with how not to do a survey.

Sometimes, broadcasters seem to say to themselves "Shall we do a survey? ... Yes, why not? What a good idea!"

So they produce a questionnaire, writing down all the things they want to know about their audience. Then they find some people who will fill in the questionnaire. (This type of survey nearly always uses questionnaires that the respondents fill in themselves.) Perhaps there is a big fair being held nearby, so the station prints a lot of questionnaires, and leaves a heap at the fair, with a sign instructing people to take a questionnaire, fill it in, and mail it back.

After this, the station may have a few completed questionnaires - but probably only a small percentage of the number printed. In one of the research cases where I know there were thousand questionnaires were printed in Agra, but just 55 were filled in and returned. (Nobody ever found out what happened to the rest.)

Not all of these questionnaires will be fully completed - but the station staff are probably used to forms that are unclear and poorly filled in. Now, the staff wonder what to do next. They begin to realize how much work will be required to process the questionnaires - though they are not sure how this processing is done.

What they didn't know was that producing the questionnaire and getting some completed questionnaires back was the easiest part of the process. Often, at this point the manager desperately glances through the questionnaires, and declares "Yes! I knew it all along: the listeners agree with me." The questionnaires are put away in a box. They gather dust for a year or two, and eventually they are thrown out.

What a waste of effort! If this story wasn't so common, it would be funny.

How to Organize a Survey

Now that you've seen how *not* to do a survey, let's look at a better method. Whether you do the survey (or other research) yourself, or commission another organization to do it, you should first of all:

1. Know what you want to know, and
2. Know how you will use the results.

If you don't know these, you will probably flounder in indecision, and not find out what you really need to know.

Audience research projects are usually done in this order:

1. Define the purpose of the research.

   You should be able to summarize this in one sentence.

2. Try to find out if the information you need is already available.

   If the information exists, you can stop now. If the information is not available, you can go ahead with the research plan.

3. How much is it worth to you, to know this?

   Research can be very expensive. There are always ways to reduce the cost, but they bring certain disadvantages.

4. Which research method is most appropriate?

   If you need precise numerical information, a survey will be needed. If you need to gain a broad understanding, and numbers are not so important (e.g. the types of people in your audience and what they prefer) qualitative research may be more appropriate.

5. Who will do the research?

   Will you do it by yourself, or hire a research organization to do it all, or will it be some type of joint effort?

6. Now do the research.

   This book explains how.

7. When the research is finished, compare the results with your activities.

   What differences are there between the perfect activities (as defined by your audience) and your current activities? What needs to change? Why not change it, then?

Planning a Research Project

You can plan a research project by asking yourself, and answering, these questions:

- What do you already know about your audience?
- What do you need to know?
- How will you use the results?

What do you Already Know About your Audience?

It's worthwhile to keep a list of some basic facts about your audience. I have compiled a set of basic questions, which cover most aspects of audience research. A well-informed publisher should know most of the answers to these questions.

The Basic Questions of Audience Research

1. How large is the audience - both as an average, and as the reach (number of different people)?
2. What kind of people make up the audience? How do they differ from the whole population - e.g. in terms of age group, sex, occupation, etc?
3. Where is your audience? In each part of your coverage area, what percentage of the population are members of your audience?
4. When does your audience use your publication (or tune into your station) - what time of day, what day of week, etc?
5. How do your audience members spend their time? How much of their time is spent being part of your audience? And how much with your competitors?
6. What type of content (e.g. radio and TV programs, newspaper articles) interests your audience most - and least?
7. What styles of presentation do your audience prefer, and what styles do they dislike?
8. Which activities, attitudes, and other effects do your publications cause among your audience?
9. How will your audience react to a new kind of program or article that you might introduce?
10. How can you increase your audience? Is it best to try to find new listeners? Or to bring lapsed listeners back? Or to persuade existing listeners to spend more time with your broadcasts?
11. What percentage of the population in your area know about your station - and how much do they know about it?
12 . What is preventing people from using your service as much as they might?

Most audience research is directed towards answering the above general questions. Some of them, of course, are more than one question. In fact, some of those questions can be divided into hundreds of more precise questions.

With any proposed research project, it is useful to work out which of the above general questions it tries to answer. Most research projects will cover more than one of the general questions, but if you have done no audience research before, it will be impossible to cover all questions with a single project. You would have to ask thousands of questions, and most respondents would not have enough patience to answer so many questions accurately.

Situation Assessment

A useful exercise to do when planning a research project is a situation assessment. This is a systematic way of considering all factors that might affect your organization. This often forms a part of a marketing plan or a strategic planning exercise.

Three main factors that affect stations and audiences are broad social trends, the audience environment, and your media environment. To assess these factors, three tools you can use are trend assessment, audience assessment, and SWOT analysis.

Trend Assessment

What are the major trends now happening, and expected to continue over the next few years? I've divided all possible trends into six broad groupings. For each trend, you can identify aspects that are growing, and aspects that are declining. Most of this may have to be based on opinion rather than fact. A good reason for doing audience research is to convert the opinions into facts.

Below is an example of a completed trend chart. Try doing one for your area, using published information (such as Census data) if this is available. Even if you're not sure exactly what the trends are, it's useful to discuss these with your colleagues before planning an audience research project. Some of this information may not be available, and the audience research project can be used to collect it.

Social Trends Chart

Type of trend	Growing	Declining
Demographic	More people aged over 50	Fewer people living on farms
Economic	Higher average income	Less unemployment
Political	More freedom of speech	Independence of local government
Environmental	More background noise	Smaller farms
Technology	Introduction of satellite TV	% with no electricity at home
Personal values	Desire for freedom among teenagers	Respect for the elderly
Audience preferences	Use of Internet	Willingness to watch serials?

The *examples* above should be replaced with your own information or beliefs. Some trends, such as the growth of the Internet, may fall into several of these categories. Environmental trends may not always be relevant to radio and TV audiences, but it's worthwhile to think about them - and they always provide good material for programs.

Audience Assessment

This involves summarizing the social situation of your present and potential audience. Here are some of the key questions to which you should know the answers. The first group could be answered without doing audience research, e.g. by using Census data.

1. What is the area covered by your station or publication? This can be divided into an inner area, where you face little competition, and an outer area, where perhaps your station can be received, but other stations may be more relevant.
2. How many people live in the inner and the outer areas?
3. What other media, and other activities are competing for your audience's time?
4. What sort of people does your station try to attract? (In terms of age group, education, etc.)
5. How are these people distributed across the coverage area? Are there small areas with a much higher concentration of them?

   The following questions can be answered only by doing audience research:

6. What proportion of the inner and outer area populations use your station?
7. How often do they use it? At what times, on what days?
8. What is your station's share of their available time?
9. What types of people use your station most?
10. In what circumstances do people use your station?

If you can answer all of the above questions, you will have a good picture of your audience.

SWOT analysis

As well as the audience environment, there's the media environment. A good way to think about this is to do a SWOT analysis. SWOT stands for Strengths, Weaknesses, Opportunities, and Threats.

A SWOT analysis is done by getting a group of people to answer four questions. People usually do a SWOT analysis by considering each of the four factors in turn: S, W, O, T. But I've found it's better to go S, W, T, O. Though you can't pronounce it, the natural flow of human thought is to move from problems towards solutions - like this:

S. What are our particular strengths? What can we do better than any other publisher?

W. What are our weaknesses? What things do we not do as well as other publishers?

T. What are the threats to our organization? What might come along that would make us irrelevant, or take away most of our audience?

O. What opportunities could we seize? What aren't our competitors doing, that our audience would like? (Opportunities come and go quickly: if another radio station foolishly changes its format and loses most of its listeners, perhaps your station could gain them if it acts quickly.)

Who should be involved in a SWOT analysis? It can be done by a single person (yourself, perhaps), but a single person will probably not think of all the strengths, weaknesses, threats, and opportunities. If a number of your staff meet, and spend a few hours discussing these four questions, many more factors will be included. It's best to include some outsiders - even well-informed audience members - because sometimes they can see things that a station's staff don't notice.

Stakeholder Analysis

Stakeholders are types of people who have an interest in what you are doing. For example, if you are running a commercial radio station, your stakeholders will include

- your audience
- your advertisers
- local organizations which depend on you for information (probably including local government)
- your staff
- your owners or shareholders
- your suppliers
- your neighbours
- your competitors

...and so on: every type of person who would be affected by any action your organization might take.

The first step in stakeholder analysis is to work out who the stakeholders are. For each group of stakeholders, you should consider:

- What they expect from you
- How they'd react if you stopped existing
- How they'd react if you greatly increased in size
- Any other issue that you think is important for stakeholders.

You'll probably find that you don't have all this information, from each type of stakeholder. It's helpful to guess, but distinguish (a) what you know for sure, (b) what you have good reason to suspect, and (c) what you are guessing at.

If you're planning some action which may be controversial, it's useful to consider each type of stakeholder in turn, and their likely reaction to your proposed changes.

When you have completed a situation assessment, using the above four tools, you'll probably realize that there are some important questions that you don't know the answers to. That's why a situation assessment leads naturally into audience research.

LESSON 5:

Topics Covered

Audience research, Planning research, understanding audiences

Objectives

Upon completion of this Lesson, you should be able to:

- Types of audience research.
- How research is done: an overview.
- Planning a research project.
- Some findings about audiences

Reasons for Research

There are several reasons for doing audience research. Depending on which reason applies in a particular situation, a different type of research should be chosen. Four of the most common reasons are to help in making a decision, to understand the audience, to demonstrate facts to outsiders, and to provide material for programs.

To Help in Making a Decision

The most effective small research projects I've seen have resulted from the need to make a decision based on audience data. Often, only a few very specific questions need to be asked, or one main topic area covered.

The best solution here is a small survey (with a sample as little as 100), or a set of 3 or 4 consensus groups. Use a survey if you are clear about exactly what you want to know, and need a numerical answer. Use consensus groups if you are uncertain about the exact questions that should be asked, and you don't need exact numbers, but will be satisfied with statements such as "the great majority prefer..."

To Understand the Audience

This is a more difficult task - and one that never stops. The questions often asked by the organization's management are along the lines of "What type of people tune in to our station? What interests them most? How do they spend their time?"

If this is your main interest, you could consider either a set of consensus groups, or a detailed survey. In general, I recommend consensus groups. A survey will provide precise results to the questions asked, but will give no information at all on questions that weren't asked. Also, a survey will cost a lot more, and take more time.

To Demonstrate Facts to Outsiders

Commercial broadcasters want to convince manufacturers and retailers to advertise on their station. For this, it helps to have data showing the size, demographics, and interests of their audience. A related purpose is a special-interest organization, seeking support from a funding body, and providing survey data to show the extent of public support for that organization.

This type of information is more convincing if it comes from a survey, conducted very thoroughly by an impartial third party, such as an industry-wide body or market research company. If your organization does the survey itself, the results will have less credibility to outsiders, no matter how accurately you do the work.

Alternatively, you could have your survey audited by an independent organization, to confirm that the results you are publishing are unbiased.

To Provide Material for Programs

Most media organizations can use research methods to gather data about audiences, and make programs based on this data. Audiences like to hear about public opinion, and general reaction to issues of the day, and programs created from (or supported by) research data always seem to be popular.

For this purpose, all research methods are suitable, including surveys, consensus groups, and informal interviews. To gain the fullest information, several different methods can be used.

What do you Need to Know - And how will you Use that Knowledge?

Whatever the purpose of the research, the first stage is to ask yourself "What do we need to know from this research?"

When an organization asks my group to carry out a research project for it, the first thing I ask them to do is to write out a list of questions that they want the research to answer. This is not the same as writing a questionnaire; it is the list of questions that need to be answered. I also ask them to consider what action they might take, resulting from the answers to a question. If no action will result from a question, that question will usually be of lower priority than one whose answers cause a decision to be made.

When the list of questions has been prepared, the next stage is to convert the questions into a set of hypotheses.

Hypothesis

A hypothesis is a statement whose truth can be tested in a survey. For example, a manager of a TV station might say "Our viewers are old." This is not a real hypothesis, because it's not precise enough. You need to specify exactly what "viewers" and "old" mean. For example "The people who watch our station at least once a week are aged over 46." That's better, but it's not quite there: does "the people" mean "all the people" or "most of the people"? How about this: "More than two thirds of the people who watch our channel at least once a week are aged over 46."

That's a hypothesis. It can be tested by including two questions in a survey, e.g.

- How Often do you Watch this Station?
- What age are you?

A hypothesis often has its beginnings in an assumption. The staff of an organization often hold assumptions about their

audiences. But these assumptions are beliefs, not facts, and often they aren't true. Sometimes, the staff don't even realize they are making assumptions about their audience. Therefore, at the planning stage of a survey, it's valuable to include people who know something about your organization, but can take a broader view. These can be members of another organization that you work with, some members of your audience, and other kinds of other stakeholders. The most effective planning groups seem to include a wide range of different types of people.

One of the main problems in doing your own research, and not consulting other stakeholders, is that you can lose this broad viewpoint. This is where market research companies can be most useful: in identifying the assumptions that you're not aware you're making.

Who Should do the Research

If you do your own research, it is much cheaper - but that is because most of the cost involves labour. You need to be highly organized, and to have suitable staff with plenty of time available. You also need to be well informed - for example, by reading this book.

If you hire a research group, it will be much more expensive, but you should receive the results sooner. The work should be of better quality, but may lose something in relevance.

Usually the best results are achieved if you work closely with a professional researcher, but learn as much as you can about the process, and fit the purpose and results of the research into your own management process. My advice is not to rush into doing research straight away, but spend plenty of time with the research company - not only your top manager, but also a number of your staff.

Comparisons

A problem with many surveys designed by novices is the lack of information with which results can be compared. You might ask, for example, your audience's opinion of a presenter. Suppose that you do a survey, and find that 56% regard the presenter as "good". Without a comparison, this figure is not useful - is 56% high or low?

If you also asked about a number of presenters on your station, or even some presenters on other stations, this information would be much more useful.

Unless you already have a lot of information about your audience (from previous research) you should make lots of comparisons in a research project - more than you initially think are necessary.

Guidelines for doing your Own Research

If you decide to do the research yourself, here are some suggestions.

Decide what you Want to Find Out - and why

Don't seek information that you're not prepared to act on. If you are determined to scrap that program anyway, why do audience research? To prove something to others? If so, are they going to believe the results of research you've done without involving them? Not likely! The results will only justify the effort if you can make use of them.

Cover an Issue More Broadly than you Think you Need to

A radio station may want to increase its audience. Newcomers to audience research might think that only listeners to the station should be questioned, because non-listeners would not be able to answer some of the questions. This is a mistake, but you may not discover it till the research is finished. Always try to measure the central activity (e.g. listening to radio) in a broader context. In this example, don't ask only about your radio station, or even all radio stations in the area. What a radio station is competing for is the audience's time, so a comprehensive study needs to find out how people spend their time.

Keep it Small

When doing your first survey, don't ask too many questions, and don't have too large a sample. Small surveys have a much better record for being completed and acted on. There's seldom a need to interview more than 250 people — though 100 should be regarded as a minimum. If you've never done a survey before, try to restrict the questionnaire to 2 pages, or about 12 short questions. You can always do another survey later.

I recommend that your first project should be a set of consensus groups - because

- consensus groups are easier to do than surveys,
- consensus groups are cheaper,
- consensus groups need less organizing, and
- the results are available immediately, without computer processing.

When you have done a set of consensus groups, you may find you need to do a survey. If so, you will already have a set of statements which can easily be converted into survey questions.

Use a Representative Sample

Take steps to make sure that the sample is a representative part of the population. Don't let the interviewers speak to whomever they please; people are not all alike.

And never assume that you, yourself are typical - for a start, you know much more about your own station than most audience members will.

Don't Try to Produce a Mammoth Report

A few pages is usually enough: long reports usually go unread. But do produce a brief report, even if only so that you'll know better next time. (The second audience research project is always easier than the first.)

Don't Stop

More than most other activities, an audience research project is something in which every part relates to every other part. If you stop halfway through the process, and return to the project later, you'll probably have forgotten why some questions were asked. For the same reason, if you can read this whole book without stopping, you'll have a better idea of the interrelationships between different aspects of surveys.

Which is the Best Research Technique?

No single research technique is best, but each technique is appropriate for a particular kind of situation. There's an old

saying, common among researchers, and still true: “Research can be fast, cheap, and accurate - pick any two.”

In other words:

- Quick, low-cost research is usually not accurate
- Quick and accurate research is not cheap (and sometimes not possible)
- Cheap and accurate research is usually slow.

In some situations, you don’t need very accurate research. If you have never done audience research before, and have no information about your audience, it’s not difficult or expensive to gather some data.

For example, if you don’t know the ages of your audience, you could do a small survey and perhaps find that 64% were under 30 years old. If only 100 people were surveyed (as long as they form a representative sample) you can expect that the figure of 64% may be about 5% in error. But whether the true figure is 55% or 70%, you will be much better informed than you were before.

So if you only want to get an approximate idea of your **audience, it**s possible to do research quickly and cheaply, and still have it accurate enough. The more you already know about your audience, the more expensive it becomes to increase that knowledge.

The following table lists the main research methods, showing their strengths and weaknesses. I also show their relative cost and speed - but not their accuracy. That depends on sample size (the larger, the better) and how well the project is done; any method can be used well or poorly.

	Face to face	Telephone	Written	Consensus groups	Internet
Cost	High	Medium	Low	Low	Very low
Speed	Medium	Fast	Slow	Fast	Fast
Prerequisites	Interviewers must be able to reach respondents	All must have telephone	All must be literate	All must be able to attend	All must have internet access
Main problems	Organizing interviewer tasks	Getting telephone numbers	Dealing with poorly completed questionnaires	Getting useful results	Strong computer skills needed

Here’s a more detailed consideration of the advantages and disadvantages of each of the main methods of audience research. Notice that these types overlap: spoken surveys include face-to-face surveys, which in turn include face-to-face surveys at respondents’ homes. Advantages and disadvantages of the main type (e.g. spoken surveys) also apply to comments about the sub-type (e.g. face-to-face surveys).

Survey type	Advantages	Disadvantages
Spoken surveys	Effective in all situations, e.g. when literacy level is low.	Need a lot of organization.
Face to face surveys	Usually provides very accurate results. Any question can be asked. Can include observation and visual aids.	Expensive, specially when large areas are covered.
Face to face surveys at respondents' home/work/etc.	Can cover the entire population.	Expensive; much organization needed.
Face to face surveys in public places	Can do lots of interviews in a short time.	Samples are usually not representative of the whole population.
Telephone surveys	High accuracy obtainable if most members of population have telephones.	No visual aids possible. Only feasible with high telephone saturation.
Written surveys	Cheaper than face-to-face surveys.	Hard to tell if questions not correctly understood. More chance of question wording causing problems.
Mail surveys	Cheap. Allows anonymity.	Requires high level of literacy and good postal system. Slow to get results.
Self-completion, questionnaires collected and delivered	Cheap. Gives respondents time to check documents.	Respondents must be highly literate..
Fax surveys	Fast Cheap.	Questionnaires with more than one page are often only partially returned.
Email surveys	Very cheap Quick results.	Samples not representative of whole population. Some respondents lie. High computer skills needed.
Web surveys	More easily processed than email questionnaires	Many people don't have good web access..
Informal methods	Fast Flexible	Can't produce accurate figures. Experience needed for comparisons. Subjective. Most suitable for preliminary studies.
Monitoring	Little work required Cheap.	Often not completely relevant. Samples often not representative. Most suitable when assessing progress.
Observation (can be combined with surveys)	More accurate than asking people their behaviour.	Only works in limited situations.
Meters	More accurate than asking people their behaviour.	Very expensive to set up; measures equipment rather than people. Can't find out reasons for behaviour.
Panels	Ability to discover changes in individuals' preferences and behaviour.	Need to maintain records of previous contact, etc.
Depth interviews	Provide insights not available with most other methods.	Expensive; need highly skilled interviewers.
Focus groups	Provide insights not available with most other methods.	Need highly skilled moderator, trained in psychology etc.
Consensus groups	Instant results. Clear wording. Cheap	Secretary and/or moderator need strong verbal skills. Don't work well in some cultures, e.g. Buddhist.
Internet qualitative research	Easy for a geographically dispersed group to meet. Low cost.	Doesn't provide the subtlety of personal interaction. Very new, so few experts available to help with problems.

Combinations of Methods

When a study is done in several phases, one after another, you can use different methods in each phase. This often applies with screening surveys, when the first contact with respondents is used to decide which respondents should receive a more detailed questionnaire. The first contact should be a method that excludes nobody, while the main questionnaire can use a cheaper approach.

One example of this is the phone/mail survey. Initial contact is made by phone. Respondents are asked a few questions. If they give suitable answers (e.g. if they listen to your station) the interviewer then asks if a questionnaire can be mailed to them, about your station's programs. Most respondents will agree. Because the first contact has been a personal one, response rates on the mail survey will be much higher than if mail had been used in both phases.

Writing a Research Brief

When you commission a research project from an outside research group, you need to write a brief, describing what you want to know. This is sometimes called request for proposal. The research group comes back to you with a detailed proposal, outlining their proposed solutions to your problem (and of course the cost).

Even if you are planning to do the research yourself, it's an excellent idea to write a brief. This helps you to focus on exactly what you want to know. Having written your own brief, you can complete it by adding your own proposal, which will show how you will use audience research to answer your questions. Sometimes, writing a brief will show you that your problem can be solved without audience research

There's also a third section, which can be added to the brief and the proposal. This is an action plan, which describes any actions you have in mind to take, depending on the result of the research.

Briefs, proposals, and action plans need not be long - a few pages is normally enough. They are very helpful in the later planning stages, when you may be tempted to add all sorts of new elements to the original problem. If the research project seems to be getting so big that it will never be finished, review your brief and proposal. When you have an original plan, new ideas can be seen in the context of that plan, and sometimes found unnecessary.

Points to Include in a Brief

1. Give your research project a name: no more than about 10 words. This will help you define it more clearly.
2. A statement of the reason why you need research. Keep it short - and be honest!
3. Background of the problem. What a researcher should know to understand your problem.
4. What you will do as a result of this research, and how your action will depend on the results.
5. The main question you need answered.
6. The other internal questions that flow from this. (Don't try to write a questionnaire - that's the researcher's job. Instead, focus on your own questions, and let the researcher worry about how they should be answered.)
7. How certain you need to be about the results. (Research results are never exact, because only a sample of the population is used. Halving the uncertainty will almost quadruple the cost.)
8. If there's a date by which you must have the results, state it. (If you give a date that is earlier than you need, this could reduce the quality of the research, or increase the cost.)

Assignment

1. What is the meaning of measurement in research?
2. Write a research Brief taking the important considerations of research?

LESSON 6: SAMPLING

Topics Covered

Populations, Sampling frames, Samples, random sampling, sample size, sample Selection, Cluster samples, Selecting respondents

Objectives

Upon completion of this Lesson, you should be able to:

- Populations.
- Sampling frames.
- Samples.
- Principles of random sampling.
- Choosing a sample size.
- Selecting starting points for surveys.
- Cluster samples in door-to-door surveys.
- Selecting respondents within households

Sampling: Introduction

Sampling is the key to survey research. No matter how well a study is done in other ways, if the sample has not been properly found, the results cannot be regarded as correct. Though this chapter may be more difficult than the others, but it is perhaps the most important chapter in this book. It applies mainly to surveys, but is also important for planning other types of research.

1. Populations

The first concept you need to understand is the difference between a population and a sample.

To make a sample, you first need a population. In non-technical language, population means "the number of people living in an area." This meaning of population is also used in survey research, but this is only one of many possible definitions of population. The word universe is sometimes used in survey research, and means exactly the same in this context as population.

The unit of population is whatever you are counting: there can be a population of people, a population of households, a population of events, institutions, transactions, and so forth. Anything you can count can be a population unit. But if you can't get information from it, and you can't measure it in some way, it's not a unit of population that is suitable for survey research.

For a survey, various limits (geographical and otherwise) can be placed on a population. Some populations that could be covered by surveys are...

- All people living in Pune.
- All people aged 18 and over.
- All households in Mayur Vihar.
- All schools in Noida.
- All instances of tuning in to a radio station in the last seven days

...and so on. If you can express it in a phrase beginning "All," and you can count it, it's a population of some kind. The commonest kind of population used in survey research uses the formula:

- All people aged X years and over, who live in area Y.

The "X years and over" criterion usually rules out children below a certain age, both because of the difficulties involved in interviewing them and the lack of relevance of their answers to many research questions.

Even though some populations can't be questioned directly, they're still populations. For example, schools can't fill in questionnaires, but somebody can do so on behalf of each school. The distinction is important when finding the answers to questions like "What proportion of Noida schools have libraries?" You need only one questionnaire from each school - not one from each teacher, or one from each student.

Often, the population you end up surveying is not the population you really wanted, because some part of the population cannot be surveyed. For example, if you want to survey opinions among the whole population of an area, and choose to do the survey by telephoning people at home, the population you actually survey will be people with a telephone in their home. If the people with no telephone have different opinions, you will not discover this.

As long as the surveyed population is a high proportion of the wanted population, the results obtained should also be true for the larger population. For example, if 90% of homes have a telephone, the 10% without a phone would have to be very different, for the survey's results not to be true for the whole population.

2. Sampling Frames

A sampling frame can be one of two things: either a list of all members of a population, or a method of selecting any member of the population. The term general population refers to everybody in a particular geographical area. Common sampling frames for the general population are electoral rolls, street directories, telephone directories, and customer lists from utilities which are used by almost all households: water, electricity, sewerage, and so on.

It is best to use the list that is most accurate, most complete, and most up to date, but this differs from country to country. Some of these lists are of households, others are of people. For most surveys, a list of households (specially if it is in street order) is more useful than a list of people.

3. Samples

A sample is a part of the population from which it was drawn. Survey research is based on sampling, which involves getting information from only some members of the population.

If information is obtained from the whole population, it's not a sample, but a census. Some surveys, based on very small populations (such as all members of an organization) in fact are censuses and not sample surveys. When you do a census, the techniques given in this book still apply, but there is no sampling error - as long as the whole group participates in the census.

Samples can be drawn in several different ways, such as probability samples, quota samples, purposive samples, and volunteer samples.

Probability Samples

Sometimes known as random samples, probability samples are the most accurate of all. It is only with a probability sample that it's possible to accurately estimate how different the sample is from the whole population. With a probability sample, every member of the population has an equal (or known) chance of being included in the sample. In most professional surveys, each member of the population has the same chance of being included in the sample, but sometimes certain types of people are deliberately over-represented in the sample. Results are calculated compensate for the sample imbalance.

With a probability sample, the first step is usually to try to find a sampling frame: a list of all members of the population. Using this list, individuals or households are numbered, and some numbers are chosen at random to determine who is surveyed. If no population list is available, other methods are used to ensure that every population member has an equal (or other known) chance of inclusion in the survey.

Quota Samples

In the early days of survey research, quota sampling was very common. No population list is used, but a quota, usually based on Census data, is drawn up.

For example, suppose the general population is being surveyed, and 50% of them are known to be male, and half of each sex is aged over 40. If each interviewer had to obtain 20 interviews, she or he would be told to interview 10 men and 10 women, 5 of each aged under 40, and 5 of each aged 40-plus. It is usually the interviewers who decide how where they find the respondents. In this case, age and sex are referred to as control variables.

A problem with quota samples is that some respondents are easier to find than others. The interviewer in the previous example may have quickly found 10 women, and 5 men over 40, but may then have taken a lot of time finding men under 40. If too many control variables are used, interviewers will waste a lot of time trying to find respondents to fit particular categories. For example (if interviews had been specified in terms of occupation and household size, as well as age and sex) "2 male butchers aged 40 to 44, living in households of 8 or more people".

It's important with quota sampling to use appropriate control variables. If some people in a category are more likely to take part in the survey than others, and also likely to give different answers from those in another category, then that category should be a control variable.

For example, if women are more willing than men to be surveyed (which is often true) and if the two sexes' patterns of answers are expected to be quite different, then the quota design should obtain balanced numbers from each sex. In fact, sex and age group are the two commonest control variables in quota surveys, but occasionally a different variable can be the most relevant. If you're planning a quota sample, don't assume that by getting the right proportion in each age group for each sex, everything else will be OK.

Pure quota samples are little used today, except for surveys done in public places, but sometimes partial quota sampling can be useful. A common example is when choosing one respondent from a household. The probability method begins by finding out how many people live in the household, then selecting an interviewee purely at random. There are practical problems with this approach, so inside randomly selected households, quota sampling is often used.

Volunteer Samples

Samples of volunteers should generally be treated with suspicion. However, as all survey research involves some element of volunteering, there is no fixed line between a volunteer sample and a probability sample. The main difference between a pure volunteer sample and a probability sample of volunteers is that in the former case, volunteers make all the effort; no sampling frame is used.

The main source of problems with volunteer samples is the proportion who volunteer. If too few of the population volunteer for the survey, you must wonder what was so special about them. There is usually no way of finding out how those who volunteered are different from those who didn't. But if the whole population volunteer to take part in the survey, there's no problem.

When people who know nothing about sampling organize surveys, they often have a large number of questionnaires printed, and offer one to everybody who's interested. Amateur researchers often seem to feel that if the number of questionnaires returned is large enough, the lack of a sample design isn't important. Certainly, you will get some results, but you will have no way of knowing how representative the respondents are of the population. You may not even know what the population *is*, with this method. The less effort that goes into distributing questionnaires to particular individuals and convincing them that participation is worthwhile, the more likely it is that those who complete and return questionnaires will be a very small (and probably not typical) section of the population.

About the only way in which a volunteer sample can produce accurate results (without being checked against a probability sample), is if a high proportion of the population voluntarily returns questionnaires. I've known this to work a few times, usually in country areas with a small population, where up to about 50% of all households have returned questionnaires. Even so, if all the effort is left to the respondents, there's no

certainty that somebody who wants to distort the results has not filled in hundreds of questionnaires.

The same problems apply to drawing conclusions from unsolicited mail and phone calls. For example, politicians sometimes make claims like "My mail is running five to one in favour of the stand I made last week." There are all sorts of reasons why the letters sent in may not be representative of the population. The same applies to letters sent to broadcasting organizations: all these tell you is the opinions of the letter-writers. It is only when the majority of listeners write letters that the opinions expressed in these letters might be representative.

Purposive Samples

A purposive sample is one in which a surveyor tries to create a representative sample without sampling at random.

One of the commonest uses of purposive sampling is in selecting a group of geographical areas to represent a larger area. For example, door-to-door interviewing can become extremely expensive in rural areas with a low population density. In a country such as India, it is not feasible to do a door-to-door survey covering the whole country. Though areas could be picked purely at random, if the budget was small and only a small number of towns and cities could be included, you might choose these in a purposive way, perhaps ensuring that different types of town were included. However, there are better ways to do this. Read on…

Maximum-diversity Samples

A maximum-diversity sample is a special kind of purposive sample. Normally, a purposive sample is not representative, and does not claim to be. A maximum-diversity sample aims to be more representative than a random sample (which, despite what many people think, is not always the most representative, specially when the sample size is small).

Instead of seeking representativeness through equal probability, it's sought by including a wide range of extremes. This is an extension of the statistical principle of regression towards the mean - in other words, if a group of people that is (on average) extreme in some way, it will contain some people who themselves are average. So if you sought a "minimum diversity" sample by only trying to cover the types of people who you thought were average, you'd be likely to miss out on a number of different groups which might make up quite a high proportion of the population. But by seeking maximum diversity, average people are automatically included.

When you are selecting a multi-stage sample the first stage might be to draw a sample of districts in the whole country. If this number is less than about 30, it's likely that the sample will be unrepresentative in some ways. Two solutions to this are stratification and maximum-diversity sampling. For both of these, some local knowledge is needed.

With maximum-diversity sampling, you try to include all the extremes in the population. This method is normally used to choose no more than about 30 units. For example, in a small village, you might decide to interview 10 people. If this was a radio audience survey, you could ask to interview

- The oldest person in the village who listens to radio
- The oldest who does not listen to radio
- The youngest who listens to radio
- A man who listens to radio all day
- A woman who listens to radio all day
- Somebody who has never listened to radio in his or her life
- The person with the most radios (a repairman, perhaps)
- The person with the biggest aerial
- A person who is thought to be completely average in all ways

...and so on. The principle is that if you deliberately try to interview a very different selection of people, their aggregate answers will be close to the average. The method sounds odd, but works well in places where a random sample cannot be drawn. And of course it only works when information about the different kinds of sample unit (e.g. a person) is widely known.

Map-based Sampling

When you are planning a door to door survey, it is tempting to use a map as the basis for sampling. To get 100 starting points for clusters, all you need to do is throw 100 darts at the map.

This method, if properly done, gives every unit of area on the map an equal chance of being surveyed. This would be valid only if your unit of measurement was a unit of land area — for example, if you were estimating the distribution of a plant species. If you are surveying people or households, this equal-area method will over-represent farmers and people living on large properties. People living in high-density urban areas will be greatly under-represented. Even within a small urban area, large differences in density can exist.

Found Samples

Perhaps you have a list of names and addresses of some of your audience, collected for a marketing purpose. This is known as a found sample or convenience sample. It's tempting to survey these people, because it seems so easy. But don't do it! You have no way of knowing how representative such a sample is. You can certainly get a result, but you won't know to what extent that result is true of people who were not included in the sample.

Snowball Samples

If you're researching a rare population, sometimes the only feasible way to find its members is by asking others. First of all, you somehow have to find a few members of the population - by any method you can. That is the first round.

You now ask each of these first-round members if they know of any others. These names form the second round.

Then you go to each of those second-round people, and ask them for more names.

Keep repeating the process, for several more rounds. The important thing is knowing when to stop. For each round, keep a count of the number of names you get, and also the number of new names - people you haven't heard about before. Calculate the number of new names as a percentage of the total number of names. For example, if one round gives you 50 names, but 20 are for people who were mentioned in earlier rounds, the percentage of new names for that round is 60%.

You'll probably find that the percentage of new names rises at first, then drops sharply. When you start hearing about the same people over and over again, it's time to stop - perhaps when the percentage of new names drops to around 10%. This is often at the fourth or fifth round.

You now have something close to a list of the whole population (and many of them will know that you're planning some research).

Snowball sampling requires a lot of work, if the population is large, because you need to draw up an almost-complete list of the population. So this method works best when a population is very small. But if the population is small enough to list every member without a huge amount of work, you could do a census, rather than a sample: in other words, contact all of them.

Snowball sampling works well when members of a population know the other members. For example, if you are studying people who speak a minority language, or who share some disability, there's a good chance that most of them know of each other. The biggest problem with snowball sampling is that isolated people, who are not known to other members of the population, will not be included in your study, because you'll never find out about them. In the case of minorities, sometimes the more successful members will blend into the ruling culture, feeling no need to communicate with other members of that minority. So if you survey only the ones who know each other, you may get a false impression. A partial solution to this is to begin with a telephone directory or other population list. If people in that population have some distinctive family names, you can find them in the directory, and take those people for the first round.

Stratification

The simplest type of sampling involves drawing one sample from the whole survey area. If the coverage area of a radio station is a large town and its surrounding countryside, there may be a population list that covers the whole area - an electoral roll, perhaps. If you want to select (say) 50 random addresses as starting points for a door-to-door cluster survey, you could simply pick 50 addresses from the population list.

This is simple, but there's a slight danger that all 50 addresses may be in the same part of the coverage area.

Stratification is easy to do, and you should use it whenever possible. But for it to be possible, you need to have (a) census data about smaller parts of the whole survey area, and (b) some way of selecting the sample within each small area. For example, if you were using a telephone directory as a sampling frame, each residential listing might show the suburb where that number was. (It doesn't matter if the person mentioned in the listing still lives there - you use a telephone directory as a list of addresses, not people.) In this case, you'd need census data on the number of households in each suburb, to be able to use stratification effectively.

The principle of stratification is simply that, if an area has X% of the population, it should also have X% of the interviews. That's close enough. However, having different cluster sizes often confuses the interviewers, so you'd need two slightly different sets of interviewer instructions.

LESSON 7:
SAMPLING - MULTI-STAGE SAMPLING

Topics Covered

Populations, Sampling frames, Samples, random sampling, sample size, sample Selection, Cluster samples, Selecting respondents

Objectives

Upon completion of this Lesson, you should be able to:

- Populations.
- Sampling frames.
- Samples.
- Principles of random sampling.
- Choosing a sample size.
- Selecting starting points for surveys.
- Cluster samples in door-to-door surveys.
- Selecting respondents within households

Multi-stage Sampling

With door-to-door surveys, sampling is done in several steps. Often, the first step is stratification. For example, census data can be used to select which districts in the survey area will be included. In the second step, random sampling could be used, but each district might need to be treated separately, depending on the information available there. This would decide which households would be surveyed. The third step would involve sampling individuals within households, perhaps using quota sampling.

Random Sampling

The Concept of Randomness

Before we discuss random sampling, you need to be clear about the exact meaning of "random." In common speech, it means "anything will do", but the meaning used in statistics is much more precise: a person is chosen at random from a population when every member of that population has the same chance of being sampled. If some people have a higher chance than others, the selection is not random. To maximize accuracy, surveys conducted on scientific principles always use random samples.

Imagine a complete list of the population, with an entry for every member: for example, a list of 1500 members of an organization, numbered from 1 up to 1500. Suppose you want to survey 100 of them. To draw a simple random sample, choose 100 different random numbers, between 1 and 1500. Any member whose number is chosen will be surveyed. If the same number comes up twice, the second occurrence is ignored, as nobody will be surveyed more than once. So if the method for selecting random numbers can produce the same number twice, about 110 selections will need to be made to get 100 people.

Another type of random sampling, called systematic sampling, is more commonly used. This ensures that no number will come up twice. No matter how many thousands of people you will interview, you need only one random number for systematic sampling.

In the above example, you are surveying 1 member in 15. Think of the population as divided into 100 groups, each with 15 people. You need to choose one person from each group, so you choose a random number between 1 and 15. Let's say this number is 7. You then choose the 7th person in each group. If the members were numbered 1-15 in the first group, 16-30 in the second, 31-45 in the third, and so on, you'd interview people with numbers 7, 22, and 37 - adding 15 each time. Exactly 100 members would be chosen for the survey, and their numbers would be evenly spread through the membership list.

Sources of Random Numbers

The commonest source of random numbers in most countries is the serial numbers on banknotes. There can be no bias in using the last few digits of the first banknote you happen to pull out of your pocket, because there should be an equal chance of drawing each possible combination of numbers. Other source of unpredictable large numbers (from which you can use the last few digits) include lottery results, public transport tickets, even stock market indexes.

You can also cheat. With systematic sampling, only one random number is needed. Just think of a number, between 1 and the upper limit. Though statisticians would frown, it will probably make no difference to the results.

Principles of Random Sampling

The essential principle in survey research is that everybody in the population to be surveyed should have an equal chance of being questioned. If you do a survey, and everybody had an equal chance of inclusion, you're in a position to estimate the accuracy of your results.

Every survey has sampling variation. If you survey 100 people, and get a certain result, this result will be slightly different than if you had surveyed another group of 100 people. This is like tossing coins: if you toss a coin 100 times, you know that there should be 50 heads and 50 tails. But the chances are quite strong (92 in 100, to be exact) that you won't get exactly 50 heads and 50 tails. However, the chances of getting 0 heads and 100 tails are practically nonexistent.

Using statistical techniques, it's possible to work out the exact chances of every possible combination of heads and tails. For example, there are 680 chances in 1000 that you'll get between 45 and 55 heads in 100 throws. (If you doubt this, find 100 coins, throw them 1000 times, and see the result for yourself!)

In the same way, even though you know the results from a survey are not exactly accurate, they are probably pretty close —

but only if every member of the surveyed population had an equal chance of being included in the survey.

To estimate how much sampling error there is likely to be in a survey result, use the following table. "Standard error" means (roughly) the average difference between the true figure and each case.

Table of standard errors

% of sample giving this answer	Sample size (no. of interviews)			
	100	200	400	800
5 or 95%	2.2%	1.6%	1.1%	0.8%
10 or 90	3.0%	2.1%	1.5%	1.1%
15 or 85	3.6%	2.5%	1.8%	1.3%
20 or 80	4.0%	2.8%	2.0%	1.4%
30 or 70	4.6%	3.3%	2.3%	1.6%
40 or 60	4.9%	3.5%	2.4%	1.7%
50%	5.0%	3.5%	2.5%	1.8%

When using the above table, think of each question as having two possible answers. Although a question may have more than two answers (e.g. age groups of under 25, 25 to 44, and 45 or over), the number can always be reduced to two, conceptually.

For example, suppose 20% of a sample is in the 25 to 44 group. Therefore, the other 80% is in the "not 25 to 44" age group. The margin of error on this 20/80 split is 4%, so the true population figure is likely to be anywhere between 16% and 24%. There is one chance in three that it will be outside this range, and 1 chance in 20 that it be outside twice this range: i.e. less than 12 or more than 28%.

If all that sounds too difficult, just assume that the margin of error is 5%, on any result. For example, if a survey finds that 25% of the population listen to your station, it's likely that the true figure will be somewhere between 20% and 30%. (Likely - but not certain - because there's a small chance that the true figure could be less than 20% or more than 30%. A well-known saying among statisticians is "statistics means never having to say you're certain.")

Always remember that the above table shows only sampling error, which is fairly predictable. There could also be other, unpredictable, sources of error.

Note in the above table that the margin of error for 400 interviews is always half that for 100. This means that to halve the error in a survey, you must quadruple the sample size. So unless you have a huge budget, you must learn to tolerate sampling error.

Choosing a Sample Size

There are several ways to choose a sample size: you can either calculate it from a formula, or use a rough "rule of thumb."

The formula for calculating the sampling error to a survey question is:

$n = p \times q / SE^2$

where:

n is the sample size: the number of people interviewed.
p is the percentage answering Yes to the question.
q is the percentage not answering Yes to the question.
SE is the standard error as shown in the table above.

An Example

You guess that maybe a quarter of all people listen to your station, so p is 25%, and q is 75%. You want the figure to be correct within 3%. If you do find a figure of 25% who listen, you want to make sure the true figure is between 22% and 28%. So to calculate the required sample size:

$n = 25 \times 75 / (3 \times 3)$

$= 208$

This formula (which I have over-simplified slightly), is useful in working out how big a sample size you need for a given survey. But to calculate the sample size you first have to know roughly how many people will answer Yes to the question, and also decide how large a standard error you can tolerate. For beginners, this is not simple. Another problem is that samples calculated in this way can be horrifyingly large. For example, if you changed the tolerance from 3% to 1% in the above example, you'd have to interview 1875 people. Yet another problem is that every question in a survey may require a different sample size.

In an ideal world, you'd calculate the sample size for a survey as shown above, and cost would never be a problem. However, as most surveys are done to a budget, your starting point in practice may not be how much error you can tolerate, but rather how little error you can get for a given cost.

To do this, you need to divide the cost of the survey into two parts:

- a fixed part, whose cost is not proportional to sample size, and
- a variable part, for which the cost is so much per member of the sample.

Once you have allocated a proportion of the total budget to the fixed cost, and estimated the cost of getting back each completed questionnaire, you can calculate the affordable sample size.

But what if you don't know the survey cost, and have to recommend a sample size? This is where the rule-of-thumb is useful.

For the majority of surveys, the sample size is between 200 and 2000. A sample below 200 is useful only if you have a very low budget, and little or no information on what proportion of the population engages in the activity of most interest to you — or if the entire population is not much larger than that. A sample size over 2000 is probably a waste of time and money, unless there are subgroups of the population, which must be studied in detail.

If you don't absolutely need such large numbers, and have more funds than you need, don't spend it on increasing the sample size beyond the normal level. Instead, spend it on improving the quality of the work: more interviewer training,

more detailed supervision, more verification, and more pre-testing. Better still, do two surveys: a small one first, to get some idea of the data, then a larger one. With the experience you gain on the first survey, the second one will be of higher quality.

The sample size also depends on how much you know about the subject in question. If you have no information at all on a subject, a sample of only 100 can be quite useful, though its standard error is large.

Rule of Thumb

Are you confused about which sample size to choose? Try my rule of thumb:

Condition	Recommended sample
No previous experience at doing surveys. No existing survey data.	100 to 200
Some previous experience, or some previous data. Want to divide sample into sets of 2 groups (e.g. young/old, male/female)	200 to 400
Have previous experience and previous data. Want to divide sample into sets of up to 4 groups. Want to compare with previous survey data.	400 to 600

A Common Misconception

Consider this question: if a survey in a town with 10,000 people needs a sample of 400 for a given level of accuracy, what sample size would you need for the same level of accuracy in the whole country, with a population of 10,000,000? (That's 1000 times the population of the town.)

Did you guess 400,000? Many people do. The correct answer is 400.4 - you might as well call it 400.

The formula I gave above isn't quite complete. The full version has what's called the finite population correction (or FPC) added to the end, so the full formula is:

$$n = pxq/SE^2 \times (N-n)/N$$

where N is the population. Unless the sample size is more than about 5% of the population, the $(N-n)/N$ bit (the FPC) makes almost no difference to the required sample size.

Is that too technical? Think of it another way. Imagine that you have a bowl of soup. You don't know what flavour it is. So you stir the soup in the bowl, take a spoonful, and sip it. The bowl of soup is the population, and the spoonful is the sample. As long as the bowl is well-stirred (so that each spoonful is a random sample), the size of the bowl is irrelevant. If the bowl was twice the size, you wouldn't need to take two spoonfuls to assess the flavour: one spoonful would still be fine. This is equally true for human populations.

Nonrandom Sampling

Though random sampling is the ideal, sometimes it's not possible. In some countries, census information is either not available, or so far out of date that it's useless. Even when good census data exists, there may be no maps showing the boundaries of the areas to which the data applies. And even when there exist both good census data and related maps, there may be no sampling frames.

The good news (from a sampling point of view) is that these conditions usually apply in very poor and undeveloped countries with large rural populations. In my experience, there's not a wide range of variation in these populations. This is a difficult thing to prove, but I suspect that the more developed a country, the more differences there are between its citizens. All this is a way of saying that where random sampling is not possible, perhaps it's not so necessary.

The best solution I can think of is to use maximum diversity sampling.

Maximum-diversity samples are normally drawn in several stages, so they are multi-stage samples. The first stage is to decide which parts of the population area will be surveyed. For example, if a survey is to represent a whole province, and it's not feasible to survey every part of the province, you must decide which parts of the province will be included. Let's assume that these parts are called counties, and you will need to select some of these.

Maximum-diversity sampling works like this:

Stage 1

1. Think of all the ways in which the counties differ from the province as a whole -specially ways relevant to the subject of the survey. If the survey is about FM radio, and some areas are hilly, reception may be poorer there. If the survey is about malaria, and some counties have large swamps with a lot of mosquitoes, that will be a factor. If the survey will be related to wealth or education levels (as many surveys are), try to find out which counties have the richest and best-educated people, and which have the poorest and least-educated. Try to think of about 10 factors, which are relevant to the survey.
2. Try to find objective data about these factors. Failing that, try to find experts on the topics, or people who have travelled around the whole province. Using this information, for each factor make a list of the counties which have a high level of the factor (e.g. lots of mountains, lots of swamps, wealthy) and counties which have a low level (e.g. all flat, no swamps, poor).
3. The counties mentioned most often in these lists of extremes should be included in the survey. Mark these counties on a map of the province. Has any large area been omitted? If so, add another county, which is as far as possible from all the others mentioned.

Stage 2

When the counties (or whatever they are called) have been chosen, the next stage is to work out where in each county the cluster should be chosen. Continue the maximum-diversity principle by using the same principle in each country as in stage 1. If a county was chosen for its swampiness and flatness,

choose the flattest and swampiest area in the country. If it was chosen for its mountains and wealth, choose a wealthy mountainous area.

To find out where these areas are, you will probably need to travel to that county and speak to local officials. Sometimes you then find that there are local population lists - e.g. lists of all houses in the area. In that case, you might be able to use random sampling for the final stage. If there are no population lists you can use, the surveyed households will have to be chosen by block listing, aerial photographs, or radial sampling - see section ii for details of these methods.

Maximum diversity sampling can produce samples that are as representative as random samples. The problem is that you can never be sure of this.

Assignment

1. How will you distinguish between simple random sampling and Cluster sampling?
2. Describe some of the important application and use of computers in present times research?

LESSON 8:
QUESTIONNAIRES

Topics Covered

Planning, Types, Wording, Writing, Testing, Layout

Objectives

Upon completion of this Lesson, you should be able to:

- Planning the questionnaire.
- Types of question.
- Question wording.
- How to write a questionnaire.
- Program testing.
- Questionnaire layout.
- Testing questionnaires.

Key Preparation

Before you start to design your questions, clearly articulate what problem or need is to be addressed using the information to be gathered by the questions. Review why you're doing the evaluation and what you hope to accomplish by it. This provides focus on what information you need and, ultimately, on what questions should be used.

Directions to Respondents

1. Include a brief explanation of the purpose of the questionnaire.
2. Include clear explanation of how to complete the questionnaire.
3. Include directions about where to provide the completed questionnaire.
4. Note conditions of confidentiality, e.g., who will have access to the information, if you're going to attempt to keep their answers private and only accessed by yourself and/or someone who will collate answers. (Note that you not guarantee confidentiality about their answers. If a court sued to see answers, you would not likely be able to stop access to this information. However, you can assure that you will make every reasonable attempt to protect access to their answers.)

Content of Questions

1. Ask about what you need to know, i.e., get information in regard to the goals or ultimate questions you want to address by the evaluation.
2. Will the respondent be able to answer your question, i.e., do they know the answer?
3. Will respondents want to answer the question, i.e., is it too private or silly?

Wording of Questions

1. Will the respondent understand the wording, i.e., are you using any slang, cultural-specific or technical words?
2. Are any words so strong that they might influence the respondent to answer a certain way? Attempt to avoid use of strong adjectives with nouns in the questions, e.g., "highly effective government," "prompt and reliable," etc.
3. To ensure you're asking one question at a time, avoid use of the word "and" in your question.
4. Avoid using "not" in your questions if you're having respondents answer "yes" or "no" to a question. Use of "not" can lead to double negatives, and cause confusion.
5. If you use multiple choice questions, be sure your choices are mutually exclusive and encompass the total range of answers. Respondents should not be confused about whether two or more alternatives appear to mean the same thing. Respondents also should not have a clearly preferred answer that is not among the alternative choices of an answer to the question.

Order of Questions

1. Be careful not to include so many questions that potential respondents are dissuaded from responding.
2. Attempt to get recruit respondents' motivation to complete the questionnaire. Start with fact-based questions and then go on to opinion-based questions, e.g., ask people for demographic information about themselves and then go on to questions about their opinions and perspectives. This gets respondents engaged in the questionnaire and warmed up before more challenging and reflective questions about their opinions. (Consider if they can complete the questionnaire anonymously; if so, indicate this on the form where you ask for their name.)
3. Attempt to get respondents' commentary in addition to their ratings, e.g., if the questionnaire ask respondents to choose an answer by circling an answer or provide a rating, ask them to provide commentary that explains their choices.
4. Include a question to get respondents' impressions of the questionnaire itself. For example, ask them if the questionnaire was straightforward to complete ("yes" or "no), and if not, to provide suggestions about how to improve the questionnaire.
5. Pilot or test your questionnaire on a small group of clients or fellow staff. Ask them if the form and questions seemed straightforward. Carefully review the answers on the questionnaires. Does the information answer the evaluation questions or provide what you want to know about the program or its specific services? What else would you like to know?
6. Finalize the questionnaire. Finalize the questionnaire according to results of the pilot. Put a date on the form so you can keep track of all future versions.

Types of Information Collected by Questions

Questions are geared to find out what people know, did, feel and think.

1. To find out what information they know, ask them to describe something, e.g., "Please describe ..."
2. To find out what they feel, ask them, e.g., "How do you feel about ...?" or "How did you feel when ...?"
3. To find out what they think, ask them for their opinion on something, e.g., "How could the .. be improved?"
4. To find out what they did, ask them to describe an activity they did.

Two Types of Questions

1. Open-ended: No options are provided for the respondent to answer the question. They must think of their own response and describe it in their own words. If respondents have and take the time to reflect on answers to the question, you can get more meaningful information than from closed questions.
2. Closed: The respondent is given a set of alternative choices from which he or she can choose to answer the question, i.e., "yes," "no," multiple choice, a rating, ranking, etc. Closed questions can usually be answered quickly, allowing you to get a get a lot of information quickly. However, respondents may rush through the questions and not take enough time to think about their answers. Your choices may not include the answer they prefer.

How you configure your questions together, depends on whether they're used in questionnaires, interviews or focus groups.

Principles of Questionnaires

This chapter explains how to construct a questionnaire, mainly for use in surveys. Other types of audience research don't use questionnaires much.

A questionnaire is a strange type of communication. It's like a play, in which one actor (the interviewer) is following rules and reading from the script, while the other actor (the respondent) can reply however he or she likes - but only certain types of reply will be recorded. This is an unnatural social situation, and in countries with no tradition of this kind of conversation, respondents may need to have the principles explained to them.

Though it is easy to write a questionnaire, you need a lot of skill and experience to write a good questionnaire: one in which every question is clear, can be answered accurately, and has usable results.

1. Planning the questionnaire

Working Out what you Need to Know

It seems to be a natural human tendency to jump into action: to start writing a questionnaire the moment you decide to do a survey. However better questionnaires result from planning the structure before you start writing any questions. If you simply start writing questions, you are likely to find out, too late, that some important questions were omitted, and other questions were not asked in a useful way.

It's important to distinguish between questions that a respondent is to answer (questionnaire questions), and questions that you (the publisher or organization) need answers to (internal questions - sometimes called research questions). The questions you ask yourself are usually unsuitable for asking respondents directly. This is a problem with a lot of questionnaires written by beginners.

Some of your internal questions might be:

1. What sorts of people tune in to our station?
2. How long do they tune in for?
3. What are the most popular programs?
4. If we introduced a talkback program, would this bring a larger audience?

Often, one internal question will need several questionnaire questions. Sometimes, one questionnaire question may help to answer several internal questions.

I suggest you draw up a large table, with three columns, headed Our question, How results will be used, and Priority - like this:

Our question	How results will be used	Priority
What sorts of people tune in to our station?	Background information	2
If we introduced a talkback program, would this bring a larger audience?	If Yes: go ahead with program	1

The priority column is there to help you reduce the number of questions, if the questionnaire is too long: low priority questions can be omitted.

How do you create such a table? And how can you make sure you don't miss any important internal questions? I suggest that many staff be involved in creating internal questions. The more people who are involved, the better the questionnaire will be (even though it may take longer to develop). An excellent method of working out internal questions is to hold a discovery conference.

Make this table on a very large sheet of paper and put it on the wall in a prominent place, where people will notice it, and be able to add suggestions. Later, you can add a fourth column, to show which questionnaire questions correspond with which internal questions.

When you have worked out what you want to know, and with what priority, then it is time to begin writing a questionnaire.

Choosing a Questionnaire Type

There are two main types of questionnaire: spoken and written. With a spoken questionnaire, interviewers read the questions aloud to respondents, and the interviewers fill in the answers. With written questionnaires, there are no interviewers. Respondents read the questions, and fill in their own answers.

For surveys of the whole population, it is normally best to use interviewers. Response rates are higher, fewer questions go unanswered, there is no assumption that all respondents can read, and results come back more quickly.

Written questionnaires are best when the surveyed population is highly literate, and most respondents know of the surveying organization - which is usually true for a media organization. If most of the population have never heard of the organization, the response rate is likely to be very low.

A suitable situation for written questionnaires is when an organization surveys its staff. Mail panels, with an educated population, can also work well, when people have agreed in advance to be surveyed.

Deciding the Questionnaire Length

The length of a spoken questionnaire is the time it will take people to answer, on average. There can be tremendous variation between respondents, but a skilled interviewer can hurry the most talkative people and encourage the most reticent, reducing the variation. The questionnaire for your first survey should be fairly brief, so that the average person will take no more than 5 or 10 minutes to answer. An interviewer can usually go through about two single-answer questions in a minute, or 1 multiple-answer question. In 10 minutes, about 15 questions can be asked.

When interviewers are skilled and the questionnaire is interesting and not too difficult, a face-to-face interview can often take up about 30 minutes. Telephone questionnaires should not last more than about 15 minutes, on average. Both interviewers and respondents find it much harder to concentrate on the telephone.

For printed questionnaires, a good maximum length is an A3 piece of paper, folded once to form a 4-page A4 leaflet. About 20 questions of average length will fit on a questionnaire of this size. Beyond that, pages must be stapled together, response rates fall off, return postage costs more, and it is generally a lot of trouble. So if all possible, keep a written questionnaire down to 4 A4 pages, perhaps with a separate covering letter.

It's possible to use much longer questionnaires than the figures given above, but skilled questionnaire design is needed. Even so, the concentration of both interviewer and respondent tends to drop off towards the end of a long questionnaire. And if the questionnaire is very long, it takes weeks to analyse the results.

On the other hand, if the questionnaire is too short, respondents can be disappointed, and feel they haven't been able to give their full opinions. There's no advantage for a spoken interview to take less than about 5 minutes, or a written questionnaire less than 2 pages.

Satisfying respondents is an important consideration in designing a questionnaire. This is specially true in a small community. If people say that your questionnaire was frustrating to complete, you may have a high refusal rate for your next survey.

Sequence of Questions

The first few questions will set the scene for the respondent. It's important, at the beginning, to have some questions that are both interesting and easy to answer. As rapport gradually builds up between interviewer and interviewee, more difficult and personal questions can be asked.

In a good questionnaire, the questions will seem to flow in a logical order. Any break in this logical order will be punctuated by a few words of explanation from the interviewer, such as "Now a few questions about you." Such verbal headings should be used every few minutes, to let the respondents know what they'll be asked about.

The questions should move gradually from the general to the specific; this is called funnelling. For example, you may want to ask a question on attitudes towards the radio stations in your area, and also some questions about your own station's programs, without asking about the other stations' programs. At the beginning of the questionnaire, the respondents shouldn't know which station is conducting the survey. So if all those questions about your own station are asked first, respondents will think "Aha! So that's the station which is doing the survey!" Then, when it comes to the comparison of stations, the respondents will seem to favour the station that has organized the survey. Therefore, the question comparing the stations should come before the specific question on programs.

In planning a small questionnaire, it's usually helpful to determine which question (or small group of questions) is the most important, and to build the questionnaire around this — leading up to the most important question, and away from it again.

The more sensitive a question, the closer it should be to the end of the interview, for two reasons: firstly, rapport takes time to build up, and secondly, if a respondent does get offended and refuses to go on with the interview, little information will be lost. Therefore, the demographic questions normally come close to the end of the questionnaire.

At the end of a questionnaire, I normally include a very general open-ended question, such as "Is there anything you'd like to add?" or "Would you like to make any comments?" Not many respondents have much to say at this point, but if a number of them make similar comments, this is perhaps a sign that you omitted a question that respondents think is important. So a question like this is a quality-control check: often more useful in the next survey than in the current one.

How to Write a Questionnaire

Questionnaire-writing should not be rushed, so don't set artificial deadlines. It's common for a questionnaire to be rewritten 10 times before it is ready to go. If, as a novice researcher, you think the questionnaire is perfect after only one or two rewritings, you probably haven't checked it enough.

It's important not to get too emotionally involved with a questionnaire. When you have drafted a questionnaire, don't think of it as "your" questionnaire, to be defended at all costs against attacks by others. Good questionnaires are group efforts - the more people who check them and comment on them, the better the questionnaires become.

Another difficulty is that, after you have written several drafts, it's hard for you to see what's really there, because you're **remembering what** *was* there in the earlier drafts. This is a good time to invite different people to comment on the latest draft. Experienced interviewers are among the best people to consult

on questionnaire wording, because of their experience with hearing respondents answer many questions.

When you are writing a questionnaire, you will spend a lot of time re-typing and re-ordering questions. If you can use a word processor for updating the drafts, you'll save a lot of time. Most modern word processing programs have Outline features built in. I suggest you learn to use outlining. It is not difficult to set up, and makes it very easy to rearrange the order of any text with headings and sub-headings.

If you don't have a word processor, type each question on a separate piece of paper - this makes it much easier to insert new questions, or change the sequence.

At some point, the development of a questionnaire must stop. Among argumentative people, it's possible to never reach a point where all can agree on a questionnaire. Even the most perfect questionnaire can be criticized along the lines that "You can't word the question that way, because some people might answer such-and-such." The real issue is not whether it is *possible* to misunderstand a question, but what proportion of respondents are likely to misunderstand it. This can only be known from experience with that type of question. However, any question can be misunderstood by some people - if they try hard enough.

Another problem which can never be solved is how detailed a question should be. When a small number of people are likely to give a particular answer, should a separate category be provided? For example, if you are recording the education level of each respondent, should you include a category for "post-graduate degree" - which might apply only to one person in 100? The answer depends both on the number of people in the category, and their importance. If the survey was mainly about education, you probably would include that category, but in a media usage survey of the whole population, it would probably be unnecessary. The safe solution is to include an "other" category, and ask interviewers to write in details of whatever "other" answers turn up.

Much of the value of a survey depends on the sensitivity of the interviewers. An interviewer who feels that a respondent may have misunderstood a question will probe and re-check. In this way, competent interviewers can compensate for a poorly worded questionnaire. But don't rely on this — you'll certainly get answers to a poorly worded question, if the interviewers are thorough — but the answers may not apply to the exact question that was printed.

It's useful to end a questionnaire with a broad open-ended question such as "Is there anything else you'd like to say that hasn't come up already?" This gives respondents an opportunity to communicate with you in their terms (the rest of the questionnaire has been on your terms.) Though many replies to such a question will be irrelevant, you'll often find interesting and thought-provoking comments, which can be turned into questions for future surveys.

Types of Question

Questions can be described in several ways: by content, and by format. This section deals with different types of content; the next with different question formats.

Substantive Questions

A substantive question is one about the substance of the survey - the topics you want to know about. These are likely to be different for every survey, and for every organization. This seems so obvious that it's hardly worth mentioning - but there are other types of question too.

Filter Questions

In most surveys, there are some questions which do not apply to everybody. For example, if some respondents have not heard a radio program, there is no point in asking their opinion of it. So the question on hearing the program would be used as a filter. On a written questionnaire, it would look like this.

Q16. Have you heard the program?

1 Yes -> ask Q17

2 No, or don't remember -> skip to Q18

Q17. What is your opinion of the program?

1 Like it

2 Don't care

3 Dislike it

Ask all:

Q18. etc.

Question 16 is the filter question, because the people who answer No are filtered out of answering questions 17, which asks about program.

Any question whose answers determine whether another question is asked is known as a filter question. Sometimes (as discussed above, in the chapter on sampling) the whole questionnaire will be directed at only a certain category of people. In such a case, there will be a filter question right at the beginning. Depending on their answer to this question, people either answer all the other questions, or answer none. Such questionnaires take a lot less time for some respondents than for others.

When the sample is small, you should make sure that filter questions do not exclude too many people. Suppose you want to ask three questions about a program, but exclude non-listeners to the program. There are many ways of defining non-listeners. For example, your filter question could be any of these:

1. Have you ever in your life listened to the program ?
2. Have you listened to in the last year?
3. Have you listened to in the last month?
4. Do you listen to on most days of the week?
5. Have you listened to on every day in the last year?

If you define listeners as those who said Yes to the 5th version, those people will be very well informed about the program, but you may find only a few percent of respondents answering the main questions about the program, because everybody else has been filtered out.

At the other extreme, you could include everybody who had ever listened to the program. Plenty of people would answer the questions about the program, but the opinions of some of them would be based on episodes they heard years ago.

The best solution is often to ask a filter question with a range of answers, not only Yes or No, e.g.

Thinking of the program , about when did you last listen to a full episode? In the last week? The last month? The last year? Longer ago than a year?

All people who had listened in the last year would be asked the questions about the program. It would then be possible to compare the opinions of recent and not-so-recent listeners.

Demographic Questions

Most questionnaires include a number of demographic questions. These are questions about the respondent's characteristics and circumstances. Questions about sex, age group, occupation, education, household type, income, religion, are all demographic. These are included in surveys for two main reasons:

- As a check on the accuracy of the survey sample. If there are 50% males and 50% females in the population, then 50% of the people surveyed should be of each sex. (In practice, most surveys end up with a slight excess of females - if only because they spend more time at home.)
- For comparison with answers to the substantive questions of the survey - e.g. to find out the age and sex balance of listeners to a particular radio station.

For surveys with small samples (up to 100 respondents) the number of respondents will be too few for these comparisons. If you split 100 people into six age groups, some age groups will probably contain less than 10 people. Looking at the distribution of station listening in each age group may mean comparing 3 people in one age group with 5 in another. These numbers are too small to prove anything at all. Even with a large sample, there's seldom much value in dividing people into more than 6 demographic categories.

You should also compare your survey results with census figures. Most censuses ask questions about age group, sex, where people live, and the proportion of respondents who work. It's best to avoid asking about characteristics which many people regard as private, such as income or religion: answers are often inaccurate or misleading. Also, such questions upset some people, unless they can see a reason for them. For example, including questions on religious programs would justify a question about the respondent's religion.

An interviewer does not need ask some "questions," such as the sex of the respondent, and the area where the person lives. The answers to such items are already known, and can simply be written on the questionnaire.

Comparison Questions

It's always interesting to compare results from different surveys. If you can find data from an earlier survey conducted in your area, or a survey on the same topic from anywhere else, you can include some comparison questions in your survey. Copy the exact question asked in the other survey, and find out how your respondents compare with others. Demographic questions are also comparison questions, when their results are used to compare survey data with census data.

Control Items

These are not real questions, but other data gathered by the interviewer and recorded on the questionnaire. As already mentioned, the respondent's sex and residential locality are usually written on questionnaires. Other information is often useful, such as:

- the date and time of the interview,
- the duration of the interview (have the interviewer record the starting and finishing times on the questionnaire)
- the number of other people interviewed at that address,
- the interviewer's name,

... and anything which may affect the answers given. These control items usually appear at the beginning and end of the questionnaire. For written questionnaires, they can be entered before the questionnaire reaches the respondent.

LESSON 9:
QUESTION FORMATS

Topics Covered

Planning, Types, Wording, Writing, Testing, Layout

Objectives

Upon completion of this Lesson, you should be able to:

- Planning the questionnaire.
- Types of question.
- Question wording.
- How to write a questionnaire.
- Program testing.
- Questionnaire layout.
- Testing questionnaires.

There are several different styles of question. The most common are multiple-choice and open-ended questions.

Multiple Choice Questions

Here is a typical multiple choice question: the respondent is asked to choose one answer from several possibilities offered:

"Which radio station do you listen to most often: Radio City, Radio Mirchi, or some other station?"

- Radio City
- Radio Mirchi
- Other

To answer the question, the interviewer ticks the appropriate box. The three boxes are supposed to cover all possible choices. But what if the respondent answers "I don't listen to radio at all"? That's not really an "other" station, so we probably need a fourth choice: "no station."

In a multiple-choice question, all possible answers must be catered for. To account for unexpected answers, it's usually a good idea to include an "other" category — though it can be annoying to find that "other" was the commonest answer. You should try and keep "other" below 5% of the total, though this is not always predictable. Pilot testing will help in revealing common answers that should have been mentioned in a multiple-choice question.

A multiple-choice question normally needs a single answer. Sometimes multiple answers are valid (e.g. "Which of the following radio stations do you listen to?"), but when you're expecting one answer and get two, something is wrong. Probably the answer categories are not mutually exclusive.

With a questionnaire filled in by respondents, multiple choice questions can offer a large number of possible answers — the practical limit is about 50, or a full page. But when an interviewer reads out the questions, it is difficult for respondents to remember many of the possible answers when the interviewer recites these as a long list. I recommend offering no more than four choices, and limiting the total question length to about 25 words.

If you must offer a large number of choices, and the respondent cannot be expected to think of the correct one, it helps to divide a question with a large number of multiple choices into a number of smaller questions. This greatly reduces the number of possible answers to be read out. In practice, it would be much simpler to make this a single open-ended question, and (if the respondent was unsure), only then to ask the three prompting questions, and read off a short list of possible stations.

Another alternative, when there are many possible answers to a question, is to print them on a card, and hand this to respondents to choose their answers. But this cannot be done in telephone surveys, or in places where many respondents are illiterate.

Multiple-choice vs Multiple-answer

Don't confuse multiple-choice questions with multiple-answer questions. A multiple-choice question is one where the respondent is told the possible answer choices. A multiple-answer question (which need not be multiple-choice) is one that allows more than one answer. Whether a question can have one answer or more than one depends on its meaning. Here is a question with only one possible answer:

- "Which age group are you in?"

And here's a multiple-answer question:

- "Please tell me the ages of your children."

Multiple-answer questions must have at least one answer (even if that is "does not apply"), but they can have many more than that.

Often, a multiple-answer question is equivalent to a set of single-answer questions, as in this example (based on a place with 3 local radio stations)

a. Single answer series

Do you listen to Radio Mirchi at least once a week?
[ ] Yes [ ] No

Do you listen to Radio City at least once a week?
[ ] Yes [ ] No

Do you listen to RADIO RAINBOW at least once a week?
[ ] Yes [ ] No

b. Multiple-answer question

"Which radio stations do you listen to at least once a week?
(Circle all that apply)
Radio Mirchi
Radio City
RADIO RAINBOW

Sometimes respondents may be tempted to give all possible answers to a question. This often applies to questions that ask about reasons, e.g.

"Here are some reasons why people don't listen to radio. Please tell me the reasons that apply to you:
Not having a radio
Not knowing what stations there are
Not knowing what times the programs are on
Preferring TV
No time to listen to radio
Don't like the programs

...etc

People tend to give several answers to such questions - but if every respondent gives every possible answer, this doesn't help much. You can make respondents think a little harder by limiting the number of answers to about 3 per person. Respondents who give more than 3 answers can be asked "Which are the three most important answers?"

Open-ended Questions with Limited Choice

Open-ended questions, as the name implies, are those where the respondent can choose any answer. There are two types of open-ended questions: limited choice and free choice. Limited choice questions are essentially the same as multiple choice questions, but those choices are not stated to the respondent. For example, here's a multiple-choice question.

- What is your marital status - never married, now married, widowed, or divorced?

  Here's the limited choice version of the same question:

- What is your marital status? .....

  To answer a limited choice question, the interviewer either ticks a box, or writes down the respondent's answer.

As far as the respondent is concerned, the only difference between multiple choice questions and limited choice questions is that a list of possible answers is not given for limited choice questions. The lack of prompting has two effects:

a. Some unexpected answers,

b. Many people will not think of an answer they should have given.

Notice that the two versions of the above question began identically. In a spoken interview, the respondent's only cue that the question has finished is a pause. If, in the multiple-choice version, the interviewer pauses for too long after the word "status" many respondents will answer immediately, before hearing the choices. So where memory or recognition might be a problem, it is acceptable to ask a limited-choice question (without listing alternative answers), and then, if the respondent hesitates, to read out a list of possible answers. This converts a limited-choice question into a multiple-choice one.

Sometimes a question may have a limited - but very large - number of possible answers. Examples are "What is your occupation?" and "What is your favourite television program?"

In both cases, it would be possible to list hundreds of alternative answers, but this is never done. There are two solutions: either the humble dotted line is called into service, or else pre-coded categories are provided. For example, occupations might be coded as white collar, blue collar, and other. This latter method is easier, but some information is lost. Worse still, interviewer error in this situation is both common and undetectable. When the respondent gives an occupation, the interviewer must decide its category within a few seconds, by ticking a box. It's much better if the interviewer writes down the occupation in full. Grouping of occupations can be done more accurately and consistently after all the completed questionnaires have been returned to the survey office.

Open-ended Questions with Free Choice

A free choice question is one which has a near-infinite number of possible answers. The questionnaire provides a dotted line (or several) on which the interviewer writes the answer in the respondent's own words. An example of a free choice question is:

- "What do you most like about Radio Mirchi's breakfast session?"

  The problem with such questions is to make them specific enough. Just because a respondent did not give a particular answer, this does not necessarily mean that answer did not apply. Perhaps it did apply, but the respondent didn't think of it.

Therefore, if you have some particular emphasis in mind, the question wording must point respondents in that direction. Also, respondents should be encouraged to give multiple answers.

Thus, the results of the above question could not be used to assess what respondents thought of the announcer on the Radio Mirchi breakfast session: a respondent may like the announcer very much, but like the news still more.

A more specific way to ask such questions is in balanced pairs, e.g.

"Tell me some of the things you like about the Radio Mirchi breakfast session."

"And now please tell me some of the things you don't much like about the Radio Mirchi breakfast session."

With this format, any element, such as announcers or news, can have the number of likes and dislikes compared.

If an open-ended question is unclear to some respondents in a pilot test, consider explaining it. You can put a question into context by explaining why you are asking it, and what will be done with the information.

When there are hundreds of possible answers, and more than one answer is possible, it's good to break the question into several groups, so that respondents don't forget something. So instead of asking "Which magazines have you read in the last month," say "I'd like to ask you about magazines you have read or looked into in the last month. Think about magazines you have read at home, at work, at school, in a public building, or in somebody else's home. Think about magazines you often read, magazines you've seen occasionally, and magazines you'd never seen before."

Detailed wording, like that, will produce a much higher (and more accurate) list of magazines read. However, the question takes a lot longer, both to ask and to answer, than the one-sentence version.

Numeric Questions

Questions answered with numbers are a special type of open-ended question. For example:

"What is your age?"
Enter number of years: .....

Though statistical software is designed mainly to handle numbers, numeric questions are rare in audience surveys. Most people are not good at giving precise numerical answers from memory. For example, I once organized an event survey including these two questions: "Which area do you live in?" and "How many kilometres is that from here?" The answers could be checked on a map. The average error in distance was more than 20%.

Even when people in a survey are asked their exact age, you always find unexpectedly large numbers aged 30, 40, 50, 60 and so on: it seems that some people round off their age to the nearest 10 (sometimes 5) years.

So if you're doing a survey where accurate numbers are important, you can't rely on respondents' memory. If they are being surveyed in their homes, the interviewer could ask to see documents to check the figures. Though some respondents may refuse, this method should produce more accurate results.

But do you really need this level of precision? Will 39-year-olds really have different TV preferences from 38-year-olds? Will people who live 7.2 km from the theatre be less likely to attend than those who live 7.1 km away? Surely not - and unless the sample size is very large, such differences would be barely detectable. Therefore, most surveys ask about age groups, and approximate numbers. Exact numerical answers are rarely needed.

When to Ask Each Type of Question

You'll find that once you have thought up a question, the form it takes (whether multiple choice, limited-choice, or free choice) is not related to its wording but to the number of possible answers. Few questions can be easily converted from one of the three types to another.

A good questionnaire needs both multiple choice questions (with few possible answers) and free choice questions (to which everybody could give a different answer). Multiple choice questions are easily processed by counting, but provide little detail. Free choice answers have a lot of detail, but the bulk of that detail can be difficult to handle.

In professional surveys, with their sample sizes of several thousand respondents, the free choice answers are always a problem. Verbal responses take more time to process, and computers can't summarize them well. Thus, the most common fate of questions with a large number of possible answers is to have these answers divided into categories. A coder reads all the answers, works out a set of categories (often 10 to 20), then decides which category each answer falls into.

The result of this process is a table showing the percentage of people answering in each category, though each category is itself a mixture of widely differing answers. In other words, to fit the computer system, a lot of the information is lost by the grouping of responses.

But when the sample size is less than about 500, the information need not be lost. Though it is still helpful to group the open-ended answers (specially if you want to test some hypothesis that you have), the volume of wording in the answers is not too much to read through.

The use of verbatim responses can partly substitute for a small sample. For example, with a large-scale survey you might try to find out why people listen to one radio station rather than another, by cross-tabulating demographic categories against the station listened to. With a small-scale survey, the equivalent would be studying the open-ended reasons given by those who prefer each station.

The implication of this for a small survey is to make maximum use of open-ended questions. Compared with multiple choice questions, less can go wrong with question wording, and the mathematical skills needed for normal survey analysis are largely replaced by verbal skills, which are more common among broadcasters.

However, a survey with only open-ended questions will produce no numerical results at all. The most useful information is produced when open-ended and multiple choice questions are combined, in effect covering the same topic in different ways. For example...

1. What do you most like about Radio Mirchi's breakfast session?
2. What do you most dislike about Radio Mirchi's breakfast session?
3. To summarize Radio Mirchi's breakfast session, would you say it is an excellent program, or a good program, or not very good?

Question 3 above both summarizes the results of questions 1 and 2, enables percentages to be calculated (e.g. 57% may have thought the program excellent), and also serves as a check on the two other answers. If a respondent has a lot of likes (Q.1) and no dislikes (Q.2), but then rates the program as "not very good", this may show that he or she has not heard Q.3 properly. The interviewer is in a position to detect and ask about the apparent discrepancy. It's good practice to use this cross-checking technique whenever possible.

Summary

Questionnaire Design

KISS - keep it short and simple.If you present a 20-page questionnaire most potential respondents will give up in horror before even starting. Ask yourself what you will do with the information from each question. If you cannot give yourself a satisfactory answer, leave it out. Avoid the temptation to add a few more questions just because you are doing a questionnaire anyway. If necessary, place your questions into three groups: must know, useful to know and nice to know. Discard the last group, unless the previous two groups are very short.

Start with an introduction or welcome message. State who you are and why you want the information in the survey. A good introduction or welcome message will encourage people to complete your questionnaire.

Allow a "Don't Know" or "Not Applicable" response to all questions, except to those in which you are certain that all respondents will have a clear answer. In most cases, these are wasted answers as far as the researcher is concerned, but are necessary alternatives to avoid frustrated respondents. Sometimes "Don't Know" or "Not Applicable" will really represent some respondents' most honest answers to some of your questions. Respondents who feel they are being coerced into giving an answer they do not want to give often do not complete the questionnaire. For the same reason, include "Other" or "None" whenever either of these are a logically possible answer. When the answer choices are a list of possible opinions, preferences or behaviors you should usually allow these answers.

Question Types

Researchers use three basic types of questions: multiple choice, numeric open end and text open end (sometimes called "verbatim"). Examples of each kind of question follow:

Multiple Choice

1. Where do you live?

___ north

___ south

___ east

___ west

Numeric Open End

2. How much did you spend on food this week?

_____

Text Open End

3. How can our company improve working conditions?

_____

Rating Scales and Agreement Scales are two common types of questions that some researchers treat as multiple choice questions and others treat as numeric open end questions. Examples of these kinds of questions are:

Rating scales

4. How would you rate this product?

___ excellent

___ good

___ fair

___ poor

5. On a scale where 10 means you have a great amount of interest and 1 means you have none at all, how would you rate your interest in each of the following topics?

___ domestic politics

___ foreign affairs

___ science

___ business

Agreement Scale

6. How much do you agree with each of the following statements?

strongly agree disagree strongly agree disagree

My manager provides constructive criticism ___ _____ ____

Our medical plan provides adequate coverage ___ _____ ___

I would prefer to work longer hours on ___ _____ ____

fewer days

Question and Answer Choice Order

There are two broad issues to keep in mind when considering question and answer choice order. One is how the question and answer choice order can encourage people to complete your survey. The other issue is how the order of questions or the order of answer choices could affect the results of your survey. Ideally, the early questions in a survey should be easy and pleasant to answer. These kinds of questions encourage people to continue the survey. Grouping together questions on the same topic also makes the questionnaire easier to answer. Whenever possible leave difficult or sensitive questions until near the end of your survey. Any rapport that has been built up will make it more likely people will answer these questions. If people quit at that point anyway, at least they will have answered most of your questions. Answer choice order can make individual questions easier or more difficult to answer. Whenever there is a logical or natural order to answer choices, use it. Always present agree-disagree choices in that order. Presenting them in disagree-agree order will seem odd. For the same reason, positive to negative and excellent to poor scales should be presented in those orders. When using numeric rating scales higher numbers should mean a more positive or more agreeing answer.

Question order can affect the results in two ways. One is that mentioning something (an idea, an issue, a brand) in one question can make people think of it while they answer a later question, when they might not have thought of it if it had not been previously mentioned. The other way question order can affect results is habituation. This problem applies to a series of questions that all have the same answer choices. It means that some people will usually start giving the same answer, without really considering it, after being asked a series of similar questions. People tend to think more when asked the earlier questions in the series and so give more accurate answers to them.

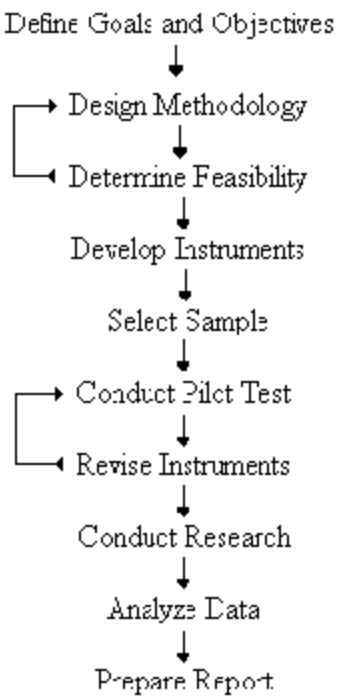
The order in which the answer choices are presented can also affect the answers given. People tend to pick the choices nearest the start of a list when they read the list themselves on paper or a computer screen. People tend to pick the most recent answer when they hear a list of choices read to them. As mentioned previously, sometimes answer choices have a natural order (e.g., Yes, followed by No; or Excellent - Good - Fair - Poor). If so, you should use that order. At other times, questions have answers that are obvious to the person that is answering them (e.g., "What brand(s) of car do you own?"). In these cases, the order in which the answer choices are presented is not likely to affect the answers given. However, there are kinds of questions, particularly questions about preference or recall or questions with relatively long answer choices that express an idea or opinion, in which the answer choice order is more likely to affect which choice is picked.

Other Tips

1. Keep the questionnaire as short as possible. We mentioned this principle before, but it is so important it is worth repeating. More people will complete a shorter questionnaire, regardless of the interviewing method. If a question is not necessary, do not include it.
2. Start with a title (e.g., Leisure Activities Survey). Always include a short introduction - who you are and why you are doing the survey. You may want to leave a space for the respondent to add their name and title. Some people will put in their names, making it possible for you to recontact them for clarification or follow-up questions. Indicate that filling in their name is optional. Do not have a space for a name, if the questions are sensitive in nature. Some people would become suspicious and not complete the survey.
3. Start with general questions. If you want to limit the survey to users of a particular product, you may want to disguise the qualifying product. As a rule, start from general attitudes to the class of products, through brand awareness, purchase patterns, specific product usage to questions on specific problems (i.e., work from "What types of coffee have you bought in the last three months" to "Do you recall seeing a special offer on your last purchase of Brand X coffee?"). If possible put the most important questions into the first half of the survey. If a person gives up half way through, at least you have the most important information.
4. Make sure you include all the relevant alternatives as answer choices. Leaving out a choice can give misleading results. For example, a number of recent polls that ask Americans if they support the death penalty yes or no have found 70-75% of the respondents choosing "yes." But polls that offer the choice between the death penalty and life in prison without the possibility of parole show support for the death penalty at about 50-60%. While polls that offer the alternatives of the death penalty or life in prison without the possibility of parole, with the inmates working in prison to pay restitution to their victims' families have found support of the death penalty closer to 30%.
5. So what is the true level of support for the death penalty? The lowest figure is probably best, since it represents the percentage that favor that penalty regardless of the alternative offered. The need to include all relevant alternatives is not limited to political polls. You can get misleading data anytime you leave out alternatives.
6. Do not put two questions into one. Avoid questions such as "Do you buy frozen meat and frozen fish?" A "Yes" answer can mean the respondent buys meat or fish or both. Similarly with a question such as "Have you ever bought Product X and, if so, did you like it?" A "No" answer can mean "never bought" or "bought and disliked." Be as specific as possible. "Do you ever buy pasta?" can include someone who once bought some in 1990. It does not tell you whether the pasta was dried, frozen or canned and may include someone who had pasta in a restaurant. It is better to say "Have you bought pasta (other than in a restaurant) in the last three months?" "If yes, was it frozen, canned or dried?" Few people can remember what they bought more than three months ago unless it was a major purchase such as an automobile or appliance.
7. The overriding consideration in questionnaire design is to make sure your questions can accurately tell you what you want to learn. The way you phrase a question can change the answers you get. Try to make sure the wording does not favor one answer choice over another.
8. Avoid emotionally charged words or leading questions that point towards a certain answer. You will get different answers from asking "What do you think of the XYZ proposal?" than from "What do you think of the Republican XYZ proposal?" The word "Republican" in the second question would cause some people to favor or oppose the proposal based on their feelings about Republicans, rather than about the proposal itself. It is very easy to create bias in a questionnaire. This is another good reason to test it before going ahead.

Questionnaire Research Flow Chart

Questionnaire research design proceeds in an orderly and specific manner. Each item in the flow chart depends upon the successful completion of all the previous items. Therefore, it is important not to skip a single step. Notice that there are two feedback loops in the flow chart to allow revisions to the methodology and instruments.



LESSON 10:
FIELDWORK

Topics Covered

Interview, Finding, Identifying, Introductions, Techniques, Finishing, Verifying, Paperwork.

Objectives

Upon completion of this Lesson, you should be able to:

- Choosing the place of interview.
- Finding interviewers.
- Finding people at home.
- Identifying the right respondent.
- Introductions. Interviewing techniques.
- Finishing an interview.
- Verifying interviews.
- Paperwork for interviewers.

If you are working in the media, you probably think of interviewing as a way of getting a story that can be broadcast or printed. The goal of journalistic interviewing, apart from accuracy, is to produce a story that will be of interest to the audience.

Research interviewing is different. The main purpose is not to keep an audience interested, but to get accurate and comprehensive information about the respondent. (In research, we have "respondents" rather than "interviewees.") Of course, journalistic interviewing also needs to be accurate, but reader interest is the first consideration. No two journalistic interviews ask exactly the same questions, but in survey interviewing, everybody is asked the same questions. The goal is comparison of respondents, and the ability to produce information about whole populations, rather than individuals.

There is one form of research interviewing which is very close to journalistic interviewing: that is depth interviewing. Depth interviewing is not used for drawing firm conclusions about populations, but for initial explorations of a topic or a sample.

Fieldwork

When interviewers talk about the field, it's not a farm, but the place where they go to do their interviews: whether at people's homes, public places, or even a call centre where they do telephone interviewing. The term fieldwork includes all interviewing, as well as the activities that go with it: preparation, interviewer supervision, and verification.

There are two main forms of fieldwork: face-to-face interviews, and telephone interviews. Telephone interviews are much less laborious (no walking - just ring a number) but also more restrictive because nothing visible can pass between the interviewer and the respondent.

Principles of Survey Interviewing

In theory, survey interviewing is very simple. You have a questionnaire, you read out the questions exactly as they are written, and you record the respondent's answers. What could be simpler?

In practice, as you will soon discover when you begin interviewing, many things can go wrong. Some people refuse to be interviewed. Some will say "I don't know the answer to that question - what's your opinion?" Some will even try to interview you. They may not answer the exact question you ask, either because they have misunderstood it, or because they don't want to.

One of the first principles of interviewing is that the interviewer must not affect the response in any way: the respondent should give the same answers to any interviewer. By your tone of voice, or even by your facial expression, you can show a respondent that you like or dislike some answers. Therefore it's important to ask each question in a completely neutral way, giving no hint of your own opinion.

Even the way you look and dress can affect respondents. Many studies have shown that respondents provide the most accurate answers to interviewers who are similar to them, in social status, sex, and skin colour. Interviewers who dress formally in a poor area can scare respondents - who may then give answers that they think the interviewer would like to hear, but which may not be true.

Much of the skill in interviewing lies in establishing a feeling of trust. The respondents need to be able to trust you - even though they don't know your opinions.

Interviewing People in their Homes

It's usually best to interview people in their homes. People usually feel more comfortable at home, and are not in a hurry to finish the interview. If anything needs checking (such as the bands on a radio) this can be done more easily at home. It's harder to lie to an interviewer at home, with other people present.

Finally, homes can be sampled more accurately than people can- because homes (unlike people) can't move around, so it's easier to count and list them.

Though it's usually best to interview people at home, in some societies this is not possible.

When people protect themselves against contact with strangers, it can be very difficult to interview them. However, in most developing countries, this is not a problem, except when trying to interview very rich people.

Interviewing in Public Places

Where it's difficult to interview people at home, one alternative is to interview them in public places.

The main problem with interviewing in public places is that some people spend a lot more time in public places than others do. This can be an advantage when the subject of the survey is the public place itself. But when you want to get a true cross-

section of the population, you usually find that interviewing in public places will produce an uneven balance of sex and age groups. Though quotas can be used to ensure that (for example) equal numbers of men and women can be interviewed, other problems remain.

For radio and TV surveys, interviewing in public places will usually produce audience figures that are too low. Most radio listening and TV viewing is done at home, and the people who spend the most time listening to radio or watching TV therefore spend less time in public places.

Using age and sex quotas won't compensate for this. The only solution (which, from my experience, doesn't work very well) is to include a question asking how much time each respondent spends at home and in public places, and to use this information to give a different weight to each type of respondent. This method requires information from a census or highly accurate survey - and it still doesn't cover people who spend no time at all in public places - such as old and sick people, who often spend a lot of time listening to radio.

Preparing for Fieldwork

Workspace

It's difficult to run a survey without a good-sized office. In this space you can brief interviewers, keep piles of questionnaires, and analyse the data when the survey is finished. It's useful to have a large table. During training sessions, people can sit around it. When questionnaires are coming back, they can be sorted into heaps on this table.

Because the survey information is most vulnerable after the questionnaires have been filled in, but before the information has been entered onto a computer, the office should be made as safe as possible from fire, burglary, etc. If the completed questionnaires are lost, most of the research work is wasted.

Hiring Interviewers

The Qualities Needed by a Good Interviewer Include

Ability to establish rapport with a wide variety of people. Successful interviewers are usually friendly, talkative types, with a lot of curiosity about others, ability to fill in forms and questionnaires correctly. It's no use being friendly and talkative if you don't record the answers correctly - unfortunately, many of the friendly, talkative types are not good with the paperwork.

Being physically fit: able to walk long distances and carry reasonably heavy loads, and not being upset by bad weather. Interviewers need to spend a lot of time outdoors, and survey organizations often underestimate the amount of walking that interviewers need to do.

Not becoming upset when people refuse to be interviewed. (This is more a factor in western countries than in developing countries, and more for telephone than face-to-face interviewers.)

Being resourceful and able to exercise initiative. (More important for face-to-face surveys than for telephone interviews.)

In a door-to-door survey, interviewers should know their assigned area reasonably well. However, if the survey covers confidential subjects, respondents usually give more honest answers to interviewers who are strangers. This is a problem with surveys on subjects such as health, but not usually a problem for media surveys.

Being able to read a map, and create a rough sketch map of the streets where they been interviewing people.

It's usually an advantage to hire interviewers with some experience of survey work. Even if the organization they worked for previously has different procedures from yours, much of the work will be similar, and they will already know what conditions to expect.

Just go through the following case study. Try and corelate

The Coke & Pepsi Rivalry

This case was written by A. Mukund, ICFAI Center for Management Research (ICMR). It is intended to be used as a basis for class discussion

The case was compiled from published sources.

The Coke & Pepsi Rivalry

Our real competition is water, tea, nimbupani and Pepsi... in that order."

- Coke sources in 1996.

"When you're No 2 and you're struggling, you have to be more innovative, work better, and be more resilient. If we became No 1, we would redefine the market so we became No 2! The fact is that our competition with the Coca-Cola company is the single most important reason we've accomplished what we have. And if they were honest, they would say the same thing."

- Pepsi sources in 1998.

"Both companies did not really concentrate on the fundamentals of marketing like building strong brand equity in the market, and thus had to resort to such tactics to garner market shares."

- Business India in 1998.

Pepsi vs. Coke

The cola wars had become a part of global folklore - something all of us took for granted. However, for the companies involved, it was a matter of 'fight or succumb.' Both print and electronic media served as battlefields, with the most bitter of the cola wars often seen in form of the comparative advertisements.

In the early 1970s, the US soft-drinks market was on the verge of maturity, and as the major players, Coke and Pepsi offered products that 'looked the same and tasted the same,' substantial market share growth seemed unlikely. However, Coke and Pepsi kept rejuvenating the market through product modifications and pricing/promotion/distribution tactics. As the competition was intense, the companies had to frequently implement strategic changes in order to gain competitive advantage. The only way to do this, apart from introducing cosmetic product innovations, was to fight it out in the marketplace.

This modus operandi was followed in the Indian markets as well with Coke and Pepsi resorting to more innovative tactics to generate consumer interest. In essence, the companies were trying to increase the whole market pie, as the market-shares war seemed to get nowhere. This was because both the companies came out with contradictory market share figures as per surveys conducted by their respective agencies - ORG (Coke) and IMRB

(Pepsi). For instance, in August 2000, Pepsi claimed to have increased its market share for the first five months of calendar year 2000 to 49% from 47.3%, while Coke claimed to have increased its share in the market to 57%, in the same period, from 55%.

Media reports claimed that the rivalry between Coke and Pepsi had ceased to generate sustained public interest, as it used to in the initial years of the cola brawls worldwide. They added that it was all just a lot of noise to hardsell a product that had no inherent merit.

The Players

Coke had entered the Indian soft drinks market way back in the 1970s. The company was the market leader till 1977, when it had to exit the country following policy changes regarding MNCs operating in India. Over the next few years, a host of local brands emerged such as Campa Cola, Thumps Up, Gold Spot and Limca etc. However, with the entry of Pepsi and Coke in the 1990s, almost the entire market went under their control.

Making billions from selling carbonated/colored/sweetened water for over 100 years, Coke and Pepsi had emerged as truly global brands. Coke was born 11 years before Pepsi in 1887 and, a century later it still maintained its lead in the global cola market. Pepsi, having always been number two, kept trying harder and harder to beat Coke at its own game. In this never-ending duel, there was always a new battlefront opening up somewhere. In India the battle was more intense, as India was one of the very few areas where Pepsi was the leader in the cola segment. Coke re-entered India in 1993 and soon entered into a deal with Parle, which had a 60% market share in the soft drinks segment with its brands Limca, Thums Up and Gold Spot. Following this, Coke turned into the absolute market leader overnight. The company also acquired Cadbury Schweppes' soft drink brands Crush, Canada Dry and Sport Cola in early 1999.

Coke was mainly a franchisee-driven operation with the company supplying its soft drink concentrate to its bottlers around the world. Pepsi took the more capital-intensive route of owning and running its own bottling factories alongside those of its franchisees. Over half of Pepsi's sales were made by its own bottling units.

Though Pepsi had a lead over Coke, having come in before the era of economic liberalization in India, it had to spend the early years fighting the bureaucracy and Parle's Ramesh Chuahan every step of the way. Pepsi targeted the youth and seemed to have struck a right chord with the market. Its performance was praiseworthy, while Coke had to struggle to a certain extent to get its act right. In a span of 7 years of its operations in the county, Coke changed its CEO four times. Media reports about the troubles faced by Coke and the corrective measures it adopted were aplenty.

The Rivalry on Various Fronts

I – Bottling

Bottling was the biggest area of conflict between Pepsi and Coke. This was because, bottling operations held the key to distribution, an extremely important feature for soft-drink marketing. As the wars intensified, both companies took pains to maintain good relationships with bottlers, in order to avoid defections to the other camp.

A major stumbling block for Coke was the conflict with its strategic bottling partner, Ramesh Chauhan of the Parle group of companies. Coke alleged that Chauhan had secretly manufactured Coke's concentrate. Chauhan, in turn, accused coke of backtracking on commitments to grant him bottling rights in Pune and Bangalore and threatened legal action. The matter almost reached the courts and the strategic alliance showed signs of coming apart. Industry observers commented that for a company like Coke that was so heavily franchisee driven, antagonizing its chief bottler was suicidal.

While all this was going on, Pepsi wasted no time in moving in for the kill. It made huge inroads in the north, particularly in Delhi where Chauhan had the franchise and also snapped up the opportunity to buy up Coke's bottler Pinakin Shah in Gujarat. Ironically, the Gujarat Bottling Company owned by Shah, also belonged in part to Chauhan for whom the sell-out was a strategic counter-move in his battle with Coke. Coke moved court and obtained an order enforcing its bottler's agreement with the Gujarat company, effectively freezing Pepsi's right to use the acquired capacity for a year. Later, Coke made a settlement of $10 million in exchange for Chauhan foregoing bottling rights in Pune and Bangalore

Towards the end of 1997, bottling agreements between Coke and many of its bottlers were expiring. Coke began pressurizing its bottlers to sell out and threatened them that their bottling agreements would not be renewed. Media reports claimed that Coke's bottlers were not averse to joining hands with Pepsi. They said they would rather offer their services to Pepsi than selling out to Coke and discontinuing a profitable business. In November 1997, Pepsi made a bid to gain from the feud between Coke and its franchised bottlers. It declared that it was ready to join hands with 'any disgruntled Coke bottler, provided the latter's operations enhanced Pepsi's market in areas where Coke was dominant.' Pepsi was even willing to shift to a franchisee-owned bottling system from its usual practice of focusing on company-owned bottling systems supplemented by a few franchisee-owned bottling companies, provided it found bottlers who would enhance both the quantity and quality, especially in areas where Coke had a substantial marketshare. Pepsi won over Goa Bottling Company, Coke's bottler in Goa and became the market leader in that city.

II – Advertising

When Coke re-entered India, it found Pepsi had already established itself in the soft drinks market. The global advertisement wars between the cola giants quickly spread to India as well. Internationally, Pepsi had always been seen as the more aggressive and offensive of the two, and its advertisements the world over were believed to be more popular than Coke's. It was rumored that at any given point of time, both the companies had their spies in the other camp. The advertising agencies of both the companies (Chaitra Leo Burnett for Coke and HTA for Pepsi) were also reported to have insiders in each other's offices who reported to their respective heads on a daily basis. Based on these inputs, the rival agency formulated its own plans. These hostilities kept the rivalry alive and healthy.

However, the tussle took a serious turn at times with complaints to Advertising Standards Council of India, and threats of lawsuits.

While Pepsi always relied on advertisements featuring films stars, pop stars and cricket players, Coke had initially decided to focus on Indian culture and jingles based on Indian classical music. These were also supported by coke advertisements that were popular in the West. Somehow, Coke's advertisements missed the Indian pulse by a wide margin. Pepsi soon came to be seen as a 'defender' who had humiliated the 'invader' with its superior creative strengths. When Coke bagged the official sponsorship rights to the 1997 Cricket World Cup, Pepsi created media history by unleashing one of the country's most successful advertisement campaigns - the 'Nothing Official About It' campaign[1]. Pepsi took on Coke, even when the latter sponsored the replays of the matches, through the campaign, 'Uncork a Cola.' Media coverage of the war even hinted that the exclusion of Rahul Dravid (Pepsi's model) from the Indian team had something to do with the war. However, Coke had its revenge when it bagged the television sponsorship rights for the 1997 Pepsi Asia Cup. Consequently, Pepsi, in spite of having branded the event was not able to sponsor it.

The severe damage caused by the 'Nothing Official About It' campaign prompted Coke to shift its advertising account from McCann Erickson to Chaitra Leo Burnett in 1997. The 'Eat-Sleep-Drink' series of ads was born soon after. Pepsi responded with ads where cricket stars 'ate a bat' and 'slept on a batting pad' and 'drank only Pepsi.' To counter this, Coke released a print advertisement in March 1998, in which cricketers declared, 'Chalo Kha Liya!' Another Thums Up ad showed two apes copying Pepsi's Azhar and Ajay Jadeja, with the line, 'Don't be a bunder (monkey), Taste the thunder.' For once, it was Pepsi's turn to be at receiving end. A Pepsi official commented, "We're used to competitive advertising, but we don't make fun of the cricketers, just the ad." Though Pepsi decided against suing Coke, the ad vanished soon after the dissent was made public. Commenting on this, a Pepsi official said, "Pepsi is basically fun. It is irreverent and whacky. Our rival is serious and has a 'don't mess with me' attitude. We tend to get away with fun but they have not taken it nicely. They don't find it funny."

Coke then launched one of its first offensive ads, ridiculing Pepsi's ads featuring a monkey. 'Oye! Don't be a bunder! Taste the Thunder', the ad for Thums Up, went with the line, 'issued in the interest of the present generation by Thums Up.'

The 1998 Football World Cup was another event the cola majors fought over. Pepsi organized local or 'para' football matches in Calcutta and roped in Indian football celebrity Bhaichung Bhutia to endorse Pepsi. Pepsi claimed it was the first to start and popularize 'para' football at the local level. However, Coke claimed that it was the first and not Pepsi, to arrange such local games, which Coke referred to as 'pada.' While Pepsi advertisements claimed, 'More football, More Pepsi,' Coke utilized the line, 'Eat football, Sleep football, Drink only Coca-Cola,' later replaced by 'Live football, dream football and drink only Coca-Cola.' Media reports termed Pepsi's promos as a 'me-too' effort to cash in on the World Cup craze, while Coke's activities were deemed to be in line with its commitment and long-term association with the game.

Coke's first offering in the lemon segment (not counting the acquired market leader brand Limca) came in the form of Sprite launched in early 1999. From the very beginning, Sprite went on the offensive with its tongue-in-cheek advertisements. The line 'Baki Sab Bakwas' (All the rest is nonsense) was clearly targeted at Pepsi's claims in its ads. The advertisement made fun of almost all the Pepsi and Mirinda advertisements launched during 1998. Pepsi termed this as Coke's folly, claiming it was giving Sprite a 'wrong positioning,' and that it was a case of an ant trying to fight a tiger. Sprite received an encouraging response in the market, aided by the high-decibel promotions and pop music concerts held across the country. But Pepsi was confident that 7 Up would hold its own and its ads featuring film stars would work wonders for Mirinda Lemon in the lemon segment.

When Pepsi launched an advertisement featuring Sachin Tendulkar with a modified Hindi movie song, 'Sachin Ala Re,' Coke responded with an advertisement with the song, 'Coke Ala Re.' Following this, Pepsi moved the Advertising Standards Council of India and the Advertising Agencies Association of India, alleging plagarisation of its 'Sachin Ala Re' creation by Coke's advertising agency, Chaitra Leo Burnett, in its 'Coke Ala Re' commercial. The rivals were always engaged in the race to sign the most popular Bollywood and cricket celebrities for their advertisements. More often than not, the companies pitched arch-rivals in their respective fields against each other in the cola wars as well. (Refer Table I)

In October 2000, following Coke's 'Jo Chaaho Ho Jaaye' campaign, the brand's 'branded cut-through mark,[2]' reached an all-time high of 69.5% as against Pepsi's 26.2%. In terms of stochastic share,[3] Coke had a 3% lead over Pepsi with a 25.5% share. Pepsi retaliated with a campaign making fun of Coke's advertisements. The advertisement had a mixed response amongst the masses with fans of both the celebrities defending their idols. In May 2000, Coke threatened to sue Pepsi over the advertisements that ridiculed its own commercials. Amidst wide media coverage, Pepsi eventually stopped airing the controversial advertisement. In February 2001, Coke went on the offensive with the 'Grow up to the Thums Up Challenge' campaign. Pepsi immediately issued a legal notice on Coke for using the 'Yeh Dil Maange More' phrase used in the commercial. Coke officials, however, declined to comment on the issue and the advertisement continued to be aired.

Table I

Celebrity Endorsers *

	Indian film industry	Cricket players
Coke	Karisma Kapoor, Hrithik Roshan, Twinkle Khanna, Rambha, Daler Mehndi, Aamir Khan, Aishwarya **	Robin Singh, Anil Kumble, Javgal Srinath.
Pepsi	Aamir Khan, Aishwarya Rai**, Akshay Kumar, Shahrukh Khan, Rani Mukherjee, Manisha Koirala, Kajol, Mahima Chaudhary, Madhavan, Amrish Puri, Govinda, Amitabh Bachchan.	Azharuddin, Sachin Tendulkar, Rahul Dravid, Sourav Ganguly.

* The list is not exhaustive.

**Aamir and Aishwarya had switched from Pepsi to Coke.

III – Product Launches

Pepsi beat Coke in the Diet-Cola segment, as it managed to launch Diet Pepsi much before Coke could launch Diet Coke. After the Government gave clearance to the use of Aspertame and Acesulfame-K (potassium) in combination (ASK), for use in low-calorie soft drinks, Pepsi officials lost no time in rolling out Diet Pepsi at its Roha plant and sending it to retail outlets in Mumbai. Advertisements and press releases followed in quick succession. It was a major victory for Pepsi, as in certain parts of the world, Coke's Diet Coke sold more than Pepsi Cola itself. Brand visibility and taste being extremely important in the soft drink market, Pepsi was glad to have become the first-mover once again.

Coke claimed that Pepsi's one-upmanship was nothing to worry about as Coke already had a brand advantage. Diet Coke was readily available in the market through import channels, while Diet Pepsi was rarely seen. Hence, Diet Coke has a brand advantage. Coke came up later with a high-profile launch of Diet Coke. However, as expected, diet drinks, as a percentage of the total cola demand, did not emerge as a major area of focus in the years to come. Though the price of the cans was reduced from Rs 18 to Rs 15 in July 2000, it failed to catch the fancy of the buyers. In September 2000, both the companies again slashed the price of their diet cans by over 33% per cent to Rs 10. Both the companies were losing Rs 5-6 per can by selling it at Rs 10, but expected the other products to absorb these losses. A Pepsi official said that the diet cola constituted only about 0.4% of the total market, hence its contribution to revenue was considered insignificant. However, both companies viewed this segment as having immense potential and the price-cuts were part of a long-term strategy.

Coke claimed that it was passing on the benefit of the 5% cut in excise duty to the consumer. Industry experts, however, believed that the price cut had more to do with piling up inventories. Diet drinks in cans had a rather short shelf life (about two months) and the cola majors were simply clearing stocks through this price cut. However, by 2001, the diet-cola war had almost died out with the segment posting extremely low growth rates.

IV – Poaching

Pepsi and Coke fought the war on a new turf in the late 1990s. In May 1998, Pepsi filed a petition against Coke alleging that Coke had 'entered into a conspiracy' to disrupt its business operations. Coke was accused of luring away three of Pepsi's key sales personnel from Kanpur, going as far as to offer Rs 10 lakh a year in pay and perks to one of them, almost five times what Pepsi was paying him. Sales personnel who were earning Rs 48,000 per annum were offered Rs 1.86 lakh a year. Many truck drivers in the Goa bottling plant who were getting Rs 2,500 a month moved to Coke who gave them Rs 10,000 a month. While new recruits in the soft drinks industry averaged a pay hike of between 40-60% Coke had offered 300-400%. Coke, in its reply filed with the Delhi High Court, strongly denied the allegations and also asked for the charges to be dropped since Pepsi had not quantified any damages. Pepsi claimed that this was causing immense damage as those employees who had switched over were carrying with them sensitive trade-related information. After some intense bickering, the issue died a natural death with Coke emerging the winner in another round of the battle.

Pepsi also claimed that its celebrity endorsers were lured into breaking their contracts with Pepsi, and Coke had tried to pressure the Board of Control for Cricket in India (BCCI) to break a sponsorship deal it had signed for the Pepsi Triangular Series. According to Pepsi's deal with BCCI, Pepsi had the first right of refusal to sponsor all cricket matches played in India where up to three teams participated. The BCCI, however, was reported to have tried to break this contract in favor of Coke. Pepsi went to court protesting against this and won. Pepsi also alleged that Coke's Marketing Director Sanjiv Gupta was to join Pepsi in 1997. But within days of his getting the appointment letter, Coke made a counter offer and successfully lured Gupta away.

V – Other Fronts

- Till the late 1980s, the standard SKU[4] for a soft drink was 200 ml. Around 1989, Pepsi launched 250 ml bottles and the market also moved on to the new standard size. When Coke re-entered India in 1993, it introduced 300 ml as the smallest bottle size. Soon, Pepsi followed and 300 ml became the standard. But around 1996, the excise component led to an increase in prices and a single 300 ml purchase became expensive. Both the companies thus decided to bring back the 200 ml bottle, In early 1996, Coke launched its 200 ml bottles in Meerut and gradually extended to Kanpur, Varanasi, Punjab and Gujarat, and later to the south. Pepsi first tried the 200 ml size in Calcutta around 1997 but withdrew it soon after. Neither company put in any marketing effort behind the 200 ml, as the 300 ml meant higher per-unit intake and more profits for the company, bottler and the retailer. This hypothesis worked well till 1999 when the growth of the soft drinks market was a mere 5% as compared to the 1998 figure of 20%. Reasoning that the Rs 9 price-point for the 300 ml bottle was hampering growth, Coke and Pepsi re-introduced 200 ml bottles on a grand scale in July (Mini Coke) and December (Chhota Pepsi) 1999 respectively. While Coke invested huge sums on local and regional advertising, which included POP, cable TV and the regional press aiming to capture the semi-urban and rural markets, Pepsi's advertisements were more city-centric.

  Based on its previous experience with lower price points, Coke launched Coke Mini in Karnataka at a price of Rs 5, and accompanied this with an extensive billboard campaign across Bangalore. Pepsi hit back with the introduction of 'Chhota Pepsi' at Rs 4.50. Though the initial campaign said 'Offer till stocks last,' Pepsi later decided to continue with the offer to retain its customer base, till the price war was over. Company sources revealed that it was purely a competition driven move. A Pepsi official commented, "The 200 ml bottles are unviable even at Rs 6. It is a good price point, but will definitely hurt the bottler and the industry. Perhaps, a

200 ml bottle will be viable at Rs 7. But who will pay Rs 7 for 200 ml, when 300 ml is available at Rs 9?"

By 2001, the 'minis' were retailing at Rs 7 and the 300 ml at Rs 10. As a variant, the 'minis' did prove to be a good venture for the warriors, though they inevitably came with added chances of keeping the companies on red-alert.

- In May 1996, Coke launched Thums Up in blue cans, with four different pictures depicting 'macho sports' such as sky diving, surfing, wind-surfing and snow-boarding. Much to Pepsi's chagrin, the cans were colored blue - the color Pepsi had chosen for its identity a month earlier, in response to Coke's 'red' identity. The move came as a surprise because even Coke executives had started referring to Pepsi as the blue brand and the Pepsi employees as 'the blue guys.'

  Media reports said this was Coke's move to 'steal Pepsi's thunder.' However, Coke officials denied this and said that they had not adopted the blue color for Thums Up cans on purpose. Also, the Thums Up blue was quite different from the Pepsi blue. Pepsi sources, on the other hand, claiming it as 'a victory of the blues over the reds.'
- There were frequent complaints from both the players about their bottlers and retailers being hijacked. Pepsi's blue painted retail outlets being painted in Coke's red color overnight and vice-versa was a common phenomena in the 1990s. Even suppliers of Visicoolers, the glass door refrigerators, were aligning themselves with either of the cola players. While Norcool was selling only to Coke, Pepsi was the only customer of Carrier. Norcool, the Norway-based glass door freezer manufacturer owned by the Frigoglass group, admitted that it had started manufacturing operations in India only at the instance of Coke. Over half its global production of Visicoolers was consumed by Coke. Even the choice of the site for its plant at Manesar was driven by the fact that it would be close to the Coke headquarters in Gurgaon. Similarly, though Carrier Commercial Refrigeration, suppliers to Pepsi, had an option of selling to 'other kinds' of consumers, it was a strict 'no-no' for Coke.
- Coke also turned its attention to Pepsi's stronghold - the retail outlets. Between 1996-98, Coke doubled its reach to a reported 5 lakh outlets, when Pepsi was present at only 3.5 lakh outlets. To reach out to smaller markets, interceptor units in the form of mobile vans were also launched by Coke in 1998 in Andhra Pradesh, Tamil Nadu and West Bengal. However, in its rush to beat Pepsi at the retail game, Coke seemed to have faltered on the service front. For instance, many shops in Uttar Pradesh frequently ran out of stock and there was no servicing for Coke's coolers. Though Coke began servicing retail outlets on a daily basis like Pepsi, it had to wait for a while before it was able to match Pepsi's retailing strengths.

  One of Coke's victories on the retail front was in the form of its tie up with Indian Oil to set up dispensing units at its petrol pumps. Pepsi responded by striking a deal with Bharat Petroleum, whose network was far smaller than Indian Oil's. Of the estimated 2,50,000 retail outlets in the country that sold soft drinks, Pepsi was stocked only at 2,00,000.

In the late 1990s, Pepsi and Coke kept trying to outdo each other in sponsoring music concerts by leading artists in order to reach out to youth. Pepsi also tied up with MTV to hold a series of pop concerts across the country. Coke on the other hand, tied-up with MTV's rival Channel V for a similar venture. There were frequent skirmishes regarding movie sponsorships and vending rights at leading cinema halls.

In May 1999, the companies were involved in a 'freebies war' - promotional schemes designed to help grow the overall cola market besides the usual market share enhancement. Coke was running as many as 12 volume-building, national-level consumer promotions, while Pepsi had 8 schemes for its brands. Coke's schemes ranged from crown exchanges to under the crown prizes, which included toys, cars, free travel, consumer durables etc. Pepsi had crown exchanges and under the crown prizes as well, it also offered free gifts like cards and tattoos. A huge outlay was involved in promoting these schemes, with frequent media splashes.

Is the Rivalry Healthy?

In a market where the product and tastes remained virtually indistinguishable and fairly constant, brand recognition was a crucial factor for the cola companies. The quest for better brand recognition was the guiding force for Coke and Pepsi to a large extent. Colorful images, lively words, beautiful people and places, interesting storylines, innovative/attractive packaging and catchy jingles have made sure that the cola wars, though often scoffed at, rarely go unnoticed. And that's what it has all been about till now. The management of both the companies had to constantly adapt to the changing attitudes and demands of their consumers or lose market share.

The wars seemed to have settled down into a pattern. Pepsi typically won a market, sustained itself for a few years, and then lost to a very determined Coke. In the earlier years, Coke was content with advertising its product to build a strategic positioning for its product. With Pepsi's offensive moves getting stronger and stronger, Coke had no option but to opt for the same modus operandi. Though the market share debates would not have any conclusions, it would be safe to infer that the cola wars were a major factor in keeping customer interest alive in the segment so far. However, in the late 1990s, questions were raised about the necessity and more importantly, about the efficacy of these wars. Answers for this would be too difficult to ascertain and too shaky to confirm.

Questions for Discussion:

1. Analyze the development of the Indian soft drinks market over the years and comment on the emergence of the MNC players as the leaders within a few years of their entry.
2. Comment on the advertising strategies of Coke and Pepsi with specific reference to the comparative and 'spoof' advertisements. Do you think that competition justifies such moves? Give the reasons for your answer.
3. Write a brief note on the cola wars waged in the other areas, besides the advertising front. Briefly comment on the ethical issues involved in such wars.
4. What shape do you think the cola wars will take in a couple of years from now? Is the consumer becoming indifferent

towards them? In such a scenario, is there any other way in which Coke and Pepsi could enhance brand recognition? Elaborate.

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(Footnotes)

[1] Since Pepsi could not get the official sponsoring rights for the event, the phrase 'Nothing official about it' was used as a punch line to indicate that Coke being the official sponsor was 'no big deal.'

[2] A tool for measuring the percentage of people recalling an advertisement.

[3] Stochastic share figures is a tool used for measuring advertising effectiveness. It quantifies the discrepancy between attitudes and behavior of the target segment.

[4] Stock Keeping Unit.

LESSON 11:
INTERVIEW - PREPARE INTERVIEWER INSTRUCTIONS

Topics Covered

Interview, Finding, Identifying, Introductions, Techniques, Finishing, Verifying, Paperwork.

Objectives

Upon completion of this Lesson, you should be able to:

- Choosing the place of interview.
- Finding interviewers.
- Finding people at home.
- Identifying the right respondent.
- Introductions. Interviewing techniques.
- Finishing an interview.
- Verifying interviews.
- Paperwork for interviewers.

Prepare Interviewer Instructions

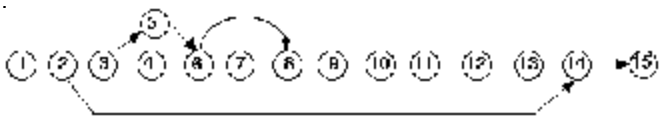
When the interviewers are being trained, they should be given a printed set of notes, which they can use for reference when they encounter a problem.

At the very least, the interviewer instructions should be a photocopy of the survey questionnaire which has been filled in as an example. Handwritten notes can be added, pointing out likely problems and giving information on how to fill in some items.

When fieldwork logs are being used, each interviewer should also be given a photocopy of a completed log, to use as an example.

Interviewer instructions can also include:

- What to say to respondents when introducing the survey.
- More detailed notes about particular questions: how to probe, etc.
- How to fill in a pay claim, with an example of a completed one.
- A map showing how to reach each cluster they will work in.
- An example of a sketch map for a cluster, showing where the respondents live
- If the questionnaire is a complex one, with a lot of skipping, it's useful to give interviewers what I call a railway diagram. This is a chart laid out like a map of a railway track, with each "station" being a question, and some questions being skipped for some respondents (just as an express train skips some stations). Here's an example:



This railway diagram shows that everybody was asked the first two questions, but after question 2, some respondents skipped to question 14. After Q3, some people were asked Q4 and others were asked Q5. Some respondents were not asked Q7.

Which questions were asked of all respondents? The diagram shows that the only questions asked of all respondents were 1, 2, 14, and 15. Without using a railway diagram, it's difficult to answer this question accurately.

Training Supervisors

Supervisors need to learn the same topics as interviewers, but to understand these more thoroughly than the interviewers do. They also need to understand the principles of editing, coding, and verification.

For a large survey, which will use many interviewers, it's a good idea to hold two training sessions:

- an initial one for supervisors and perhaps a small number of interviewers, and
- a later training session for most of the interviewers (or more than one, if training will be done in several different areas)

When you hold several training sessions, the pilot testing can be done by the supervisors or the interviewers, before all the questionnaires are printed. With the experience gained in the first, smaller training session, the large training session should run more smoothly.

Training Office Staff

When completed questionnaires are returned, they need to be counted, checked, edited, coded, and (if computers are being used) entered into a computer. This is covered in more detail in the next chapter. Supervisors also need to understand these processes - except perhaps computer data entry.

Area Checking

When a survey will cover a fairly small area - one city or region - it's often possible to visit some clusters before the interviewers go there. This will give the survey organizers some idea of the problems likely to be encountered by interviewers.

If population information is poor, and a highly accurate survey is needed, you will need to use block listing. This means that interviewers or supervisors will need to visit each cluster in advance, to work out how many households are there, and which ones should be sampled.

Even if there's no need to check all the clusters in advance, or the budget doesn't allow this, it's always a good idea for the supervisors to visit a few of the clusters that seem to be difficult in some way. So when the interviewers come to their supervisors with their problems, the supervisors will know what the interviewers are talking about.

Verification for Door-to-door Surveys

The international standard is that 10% of all interviews are verified (or validated). An interview can be verified in several ways:

- the supervisor can arrange to meet the interviewer, and attend an interview with him or her
- another interviewer (or supervisor) revisits the respondent a day or two later, and repeats key questions from the interview.
- a postcard is sent to the respondent asking for his or her confirmation that the interview was done, and perhaps to confirm the answers from a few questions.
- when an interviewer leaves a questionnaire with the respondent, to be collected a day or two later, a different interviewer can be assigned to collect the completed questionnaire.

The purposes of verification are to check that the interview was actually done (that the interviewer did not sit at home and make up all the answers) - and also to gain an estimate of the variability of answers, or the extent to which respondents change their minds

For verification to be effective, interviewers must know their work will be verified. They should also know that some of that verification will be unpredictable. For example, if verification is done only by having supervisors accompany the interviewer, it won't be so effective.

In most circumstances, cheating by interviewers is rare. But when an interviewer is inexperienced, and conditions are difficult, and there's a financial incentive to cheat, it occasionally happens. In all my years of managing audience research, I've known this to happen only a few times. Without verification, such cheating would be very difficult to detect; but the main deterrent is for interviewers to know that a tenth of their interviews (and they don't know which) will be verified.

For verification, you should prepare a shortened version of the questionnaire, omitting all questions which would not produce the same answer on a different day. Demographic details (age group, occupation, sex, etc.) hardly ever change, so these questions should be repeated to make sure the same respondent is being verified. Knowledge, habits, and awareness are more likely to change within a few days. Questions on attitudes produce much less stable answers, so there's little point in verifying these. There's usually no need for a verification interview to take more than five minutes, or include more than two pages.

Checking the Early Interviews

Soon after completing each interview, the interviewer should bring that questionnaire to his or her supervisor for checking. Interviewers should of course check questionnaires themselves, as soon as they have filled them in, but it's surprising how much a second person can see that the first person doesn't notice. At the beginning of a survey, supervisors should check each interviewer's questionnaires frequently - even daily - but later checking can be less frequent.

When supervisors go out with interviewers in their fieldwork, this should be done as early as possible. That way, any consistent mistakes than an interviewer is making can be corrected before many interviews are affected.

Interviewers' Preparation

Before an interview can begin, an interviewer usually has a lot of work to do. In a normal door-to-door survey using clusters, or she must

- find out where the cluster is,
- go there,
- find a selected household,
- choose a respondent,
- persuade that respondent to take part in the survey,
- and introduce the survey.

Only then can the interview begin.

Plan Cluster Visits

It's usually necessary to make at least 2 visits to each cluster, because some respondents won't be home on the first visit. This principle is very important for audience research: ignoring it will produce overestimates of radio and TV audiences (because most media use is at home). I recommend making at least 3 visits to each cluster before substituting other respondents.

If a cluster is a long way from the interviewer's home, and the budget doesn't allow for overnight stays, an interviewer can make 2 or 3 visits on the same day, coming back at different times if necessary to find a respondent at home.

Travel expenses are a large part of the total cost of any door to door survey. The bigger the area that the survey covers, and the further interviewers must travel, the higher the travel expenses will be. Planning cluster visits so that interviewers travel a short a distance as possible is a very effective way of reducing the cost of a survey. For example, sometimes transport costs can be shared when several interviewers must go to a group of neighbouring clusters.

Finding the Household

Much of the material in the next few sections has also been covered above in the chapter on sampling, but here it is presented from an interviewer's point of view, with attention to the practical problems.

Interviewing in Clusters

Because many of the costs of a door-to-door survey are related to travel, reducing the amount of interviewers' travel can save a lot of money.

Therefore, most door-to-door surveys are done using clusters. Instead of selecting households scattered at random all over the survey area, households are grouped into clusters: usually 30 or more of these, with between 4 and 20 households in each cluster. The larger the cluster size, the less efficient the sample - but the smaller the sample size, the higher the costs. A cluster is usually small enough for an interviewer to walk from one end to the other in less than half an hour.

Every cluster has a defined starting point. This could be a dwelling (taken from a population list), or it could be a place

such as a street intersection. If a detailed map of the area is available, each interviewer should be given a copy of that map, and the starting point should be shown on the map. If there are no maps, or if the maps do not show enough detail, the interviewer will take longer to find the starting point, and the verifier may not be able to find the same point.

Follow the Route

When the cluster's starting point is found, the interviewer follows a set of rules for finding households. Some examples of these rules are:

- When the starting point is a street intersection: choose the street that is heading the closest to north.
- Always follow the left hand side of the street, keeping the houses on your left and the road on your right.
- If you reach the end of the street, turn left at the next intersection. If there are no more dwellings visible, cross the road and come back along the opposite side. This happens when you enter a rural or commercial area. The street is treated as if it is a dead-end one.
- If you go right around the block, and come back to the dwelling you started from, cross the road, turn to face the opposite direction, and continue your route on the other side of the road.
- When the starting point is in a densely populated rural area without roads: first, travel north, trying to interview people in dwellings at least 50 metres (60 steps) apart. After interviewing at 4 houses, travel north for at least 1 kilometre (1200 steps, or minutes' walk), then choose a clearly visible turning point. Turn left, travelling west, trying to interview people in dwellings at least 50 metres apart... And so on, until a square of at least 1.2km on each side has been walked around anti-clockwise, and you return to the starting point.

I recommend using the first of those rules, if possible: i.e. follow the left hand side of the road, turn left if the road ends in an intersection, and come back along the other side if the road finishes with a dead end. This rule usually works well, in both urban and rural areas, and is easy for interviewers to follow.

Even if the starting point is a dwelling, it is normal not to interview anybody there. Why is this? Mostly because population lists always seem to be incomplete or out or date. Even the best population lists commonly omit at least 10% of dwellings. So by not interviewing at the starting point, all other dwellings are interviewed on the same basis.

Skip Intervals

People who live next door to each other usually have very similar characteristics and opinions. So by making a cluster larger, spreading it out, a wider range of people will be interviewed, and a better cross-section of the whole area obtained.

One way of effectively increasing the spread of the sample without increasing the number of households per cluster is to use a "skip interval" - not interviewing at every neighbouring dwelling, but to leave gaps between the surveyed dwellings. This slightly increases the distance that interviewers must walk, but usually ensures that the end of a cluster is a different kind of neighbourhood from the beginning of the cluster.

I once made a study of this, and found that the best skip interval was 4 - i.e. interviewing at every 4th dwelling on the route: interviewing and one, and missing out the next 3. With this rule, using a cluster size of 10 (with one respondent per household), the last dwelling surveyed would be at least 40 dwellings away from the starting point. (More than 40, if some people refused to participate, or were not found at home.)

The more similar people are to their next-door neighbours, the larger the skip interval should be. I recommend in all cases a skip interval of at least 2 (i.e. interviewing at every second household), but no more than about 6. Above that, the interviewers tend to make mistakes counting households, and also have to walk much further, with no great increase in the diversity of the sample.

LESSON 12:
FEILDWORK

Topics Covered

Interview, Finding, Identifying, Introductions, Techniques, Finishing, Verifying, Paperwork.

Objectives

Upon completion of this Lesson, you should be able to:

- Choosing the place of interview.
- Finding interviewers.
- Finding people at home.
- Identifying the right respondent.
- Introductions. Interviewing techniques.
- Finishing an interview.
- Verifying interviews.
- Paperwork for interviewers.

Choosing the Respondents

If not all people in the household are to be surveyed, the next step for an interviewer is to choose one or more respondents. The methods are designed to give everybody an equal chance of selection:

1. The birthday method: choose the person (usually above a minimum age) who last had a birthday, or will next have a birthday
2. The grid method: find out how many people in the household are over the minimum age to be surveyed, and choose one by looking up a table
3. A quota method: e.g. fulfilling a quota that 20% of interviews must be with men aged over 45.
4. The youngest/oldest man/woman method - choosing alternately the youngest man, youngest woman, oldest man, and oldest woman.

The birthday method (no. 1) can't be used unless everybody in a household knows the birth dates of everybody else. The grid method can't be used when household members don't know or won't tell the interviewer how many people live in the household. (For example, in some countries, with taxes on each person, households may pretend there are fewer people than there really are.) The quota method isn't as accurate as the others, and tends to under-represent people who are often away from home. Respondents sometimes find the youngest/oldest man woman method hard to understand ("How can I be the youngest man, when I'm 70 years old?" - Answer: He's the only man, so he's both the youngest and the oldest).

One way of overcoming the problem of choosing respondents within a household is to choose everybody. This works well when questionnaires are self-completed (it stops people from filling in others' questionnaires), but results in less efficient surveys in the case of personal interviews. Because people in a household tend to be similar to each other, the effective sample size is less than when one person is interviewed in each household.

Another alternative is to base the number of interviews in a household on the number of people. This overcomes some of the theoretical problems in choosing one person per household, a method which over-represent people living in small households. A common version of this is to interview one person in households with one or two adults, and two people in households with three or more adults.

Whichever method is chosen, the interviewers need to know

- How many respondents to choose in each household, and
- How to select those respondents.

Making Appointments

When a respondent who lives in the household has been chosen, that person may not be there when the interviewer first calls. In these cases, it will be necessary to make an appointment to return, when the chosen person is home.

But with door-to-door surveys, the samples are usually in clusters of households. Because of the time and expense involved in making many visits to a cluster, the interviewer needs to arrange appointments to avoid too many visits. Therefore appointment times need to be approximate. Instead of saying "I'll come back at 6.47pm tomorrow" the interviewer needs to say something like "I'll be back about 7pm tomorrow."

Of course, appointment times need to be recorded by the interviewer. It's also a good idea to give each household where an appointment is made a card showing the interviewer's name and the time and day of the appointment. This helps to ensure that the respondent will be at home at the appointed time.

Repeat Visits

In societies where a lot of people are away from home working (e.g. most developed countries) it's usual for an interviewer to make 3 or 4 visits to a cluster of households. In societies where most people work at home, or nearby, two visits is often enough.

These visits can even be on the same day, but at different times.

Substitution of Respondents

In cluster surveys, each cluster is designed to include a fixed number of households - often around 10 of them. And usually one interview is done at each household. So the total sample in a survey is the number of interviews in each cluster, multiplied by the number of clusters. For example, a survey with 40 clusters of 10 households, and one interview at each household, will produce a total sample of 400.

What happens if some of those planned interviews can't be made? This can happen for several reasons:

- because the person chosen as a respondent refuses to take part in the survey
- because it is impossible to interview the chosen respondent
- because, on the interviewer's final visit to the cluster, somebody who has agreed to be interviewed is not home for the appointment.

I call these lost interviews. There are two ways of dealing with these: either the total sample size can be smaller than planned, or another interview is made in that cluster, to bring the total number of interviews back to the planned number. The latter choice is known as substitution.

The advantages of substitution are that the final sample size will be known in advance, and that the balance of respondents across clusters will follow the sample design. The disadvantages of substitution are that any problems with response rate are hidden, and simply adding extra households at the end of a cluster will not compensate for refusals if a particular type of person is refusing.

In general, I have found that it is better to use substitution. The main reason for this is that certain types of area have much higher numbers than others of lost interviews. These are usually inner-city areas and places with transient populations. Without substitution, these areas (and the types of people who live in them) are usually under-represented in a survey.

Substitution is normally done by adding extra households to the end of the route in a cluster.

Take the example of a cluster that should have 10 interviews, with a skip interval of 4: every fourth household is approached for an interview. So 40 households need to be walked past. Suppose that at one of the 10 households contacted, somebody refused to be surveyed, and that the selected respondent at another household didn't keep an appointment made on the previous visit. If this was the interviewer's last visit to the cluster, 2 more households need to be added. These are added to the end of the planned route. Beyond the 40th household, another three are skipped, and the interviewer tries to get an interview at the 44th household, and then another at the 48th. If one of these refuses, or the selected person is not home, the interviewer will have to walk past another three dwellings, and seek an interview at the 52nd household. In the end, 10 interviews are completed, even though the cluster may have grown much larger than the original span of 40 dwellings.

Screening Respondents

When a survey does not cover the whole population, there must be a screening process to eliminate people who are not eligible to participate. This is done by asking a few questions, and eliminating people or households who don't give suitable answers. Sometimes these screening questions can be asked of anybody in the household, but sometimes the selected individuals must be asked. It's easier if anybody in the household can be asked the questions, but this is feasible only if everybody in the household knows the relevant details about everybody else.

For example, a survey might cover only people who listen to a particular radio station. Let's call it FM99. (This survey would not be able to find out what proportion of the population listen to the station, because non-listeners would not be included.) So a suitable screening question would be "Does anybody in this household ever listen to radio FM99?"

If the answer is No, the interviewer notes this in the log, and moves on to the next household in the route. If the answer is Yes, the interviewer finds out how many people listen to the station, and selects one or more respondents. If nobody who is there when the interviewer first calls know the answer to the question, the interviewer will have to call back later, when other people are at home.

When only a small proportion of the population are involved in the activity of interest (e.g. listening to FM99) asking screening questions in door-to-door surveys is very expensive. If only 1 person in 100 listens to FM99, about 100 households must be visited to find one listener. For this reason, door-to-door surveys usually cover the whole population. At least it is then possible to find out that 1 person in 100 listens to FM99.

But in telephone surveys, where people can be contacted much more quickly, screening is less expensive, so more common. Even for telephone surveys, when fewer than about 1 in 10 people qualify to be interviewed, screening is relatively expensive. It's common to spend more time on screening out the 9 in 10 unwanted people than in interviewing the 1 in 10 who you really want to contact. In this situation a good solution is to include a screening question on a survey of the whole population which is being conducted for another purpose. Then, as long as they give their permission, these respondents can be recontacted later for a more detailed interview.

Screening Scores

Sometimes a screening question is obvious - for example "Do you ever listen to FM99?" But when you want to survey potential users of a service, not existing users, it's much harder to develop a suitable screening question. One way of doing this is to find out which types of people use a service, then ask a series of questions to identify these people. For example, I once needed to find out about people who were potential listeners to a radio station. An earlier survey had found that existing listeners to this radio station tended to read a particular newspaper, to prefer current affairs to sports programs, to have tertiary education, and two other criteria that I don't remember. We asked 5 screening questions. In simplified form, these included:

"Which newspapers do you read?"

"Would you rather listen to a sports program or current affairs?"

"What is your highest level of education?"

...and two other questions.

For each of these questions, a respondent who gave the same answer as most listeners to the station was given one point. Respondents who received 4 or more points for the 5 questions, and did not already listen to the station, were "screened in" - i.e. included in the main survey.

Interview logs

Another necessary piece of paper is the interview log: the interviewer's record of the attempts made to contact each

selected household. With cluster surveys, when the interviewer visits a number of different households in a neighbourhood, a single log is used for the cluster, with one line per household. Usually there are between 4 and 20 households in a cluster.

With surveys that don't use clustering - such as telephone surveys - there is one page per household, or per telephone number. In this case, the logs can be smaller: often A5 size. The advantage of having a separate log for each interview is that the logs can be sorted into heaps: for finished interviews, numbers that will not produce interviews (e.g. refusals), pending appointments, and numbers not yet contacted. It's possible to do a telephone survey without using logs: the same information is recorded at the beginning of each questionnaire. However, a lot of paper will be wasted, because many telephone numbers do not result in completed interviews.

In cluster surveys, logs are almost essential, because they give interviewers a record of their progress in the cluster, on a single sheet of paper.

Information on logs

The interviewer log contains a lot of information:

1. about the cluster, the interviewer, and the visits:
   - where the cluster is
   - the code number of the cluster
   - the interviewer's name
   - the dates and times of visits by the interviewer
2. about the households and the interviews
   - Address of dwelling and/or name of householder
   - Number of interviews to be made there (if not always 1)
   - Result of each visit. The main possibilities, in a door-to-door survey, are
     - interview completed
     - come back later, no specified time
     - appointment made to return on ... day at ... time
     - nobody home - can't make appointment
     - unable to interview (sick, deaf, no common language,etc.)
     - refused to take part in survey
     - other results are possible, but rare. These can be written in.
   - serial number of each interview made at that household

On the next page is an example of a general purpose log, which you can change as necessary to suit your situation. The top section is usually filled in by the office staff, before the log is given to the interviewer. The interviewer only has to fill in the dates and times of visits, and the lines for the households.

INTERVIEW LOG FOR AMHARA SURVEY, 2000	
Locality name: Fashion Street (Mumbai)	Cluster no. 14
Address of starting point 27 Main Rd	Interviewer - Naresh

Visit 1	Monday 8 / 5	Arrival time 0927	Departure time 1235
Visit 2	Tuesday 9 / 5	Arrival time 1525	Departure time 1840
Visit 3	Thursday 10 / 5	Arrival time 1930	Departure time 2110

C = completed interview	L = come back later	A = appointment made
N = nobody home	U = unable to interview	R = refused

Address	Visit 1	Visit 2	Visit 3	Interview	Verified

The back of the log is usually blank. This space is used for explanatory notes about particular households (which are rare). I also encourage interviewers to write general comments about a cluster on the back of the log. These comments can be useful when planning later surveys, or for resolving problems.

Persuading the Unwilling Respondent

When a person selected as a respondent is found, the next step is for the interviewer to persuade that person to be interviewed. In most developing countries, this is no problem. However, if refusal rates rise above about 10%, this can affect the accuracy of the survey. (The people who refuse to take part may be consistently different in some way - for example, if they are told this is a survey about radio, the people who don't listen to radio may often refuse.)

It's therefore important for the interviewer to be persuasive. When the interviewers are being trained for the survey, they can be given a list of likely excuses, and given reasons to overcome those.

Reason for refusing	Response from interviewer
I hardly ever watch TV, so I'm no use to you.	Everybody's opinion is important, whether they watch TV or not. If you don't watch, you will only be asked a few questions.
I'm too old for this. Interview my children instead.	It's very easy, and we want to get opinions from everybody, no matter how old or young.
I'm too busy.	I can make an appointment to come back later, at a time when you're not busy.
I think TV programs are terrible, so I won't co-operate.	This is your chance to let the TV stations know the public's opinion of the programs.

Whenever somebody refuses to take part in the survey, the interviewer needs to find out the reasons for refusal.

Temporary and Permanent Refusals

Very often, when somebody refuses to be interviewed, this is because of the situation at the time. A woman whose baby is demanding to be fed, a man who is about to go off to work, a family having a meal, watching a favourite TV program, or being visited by friends - in all these situations, an interview will probably be unwelcome. So on receiving a refusal, the interviewer should find out the reason for this, and then ask "Can I come back later?"

In most cases, the respondent will agree to be interviewed on another day.

When a Respondent cannot be Interviewed

Sometimes you may find a person who cannot be interviewed. They may be deaf, mentally deficient, drunk, senile, ill, not have a language in common with the interviewer, or in some other way not able to communicate well. Usually, about one or two people in 100 are in this category. But are they always like this (e.g. deaf), or only temporarily (e.g. drunk)? If the difficulty in interviewing a selected respondent is only temporary, the best solution is to make an appointment to return another day. If the difficulty is permanent, the interviewer should write a note explaining the problem, and find a substitute person to interview. There are several ways to find a substitute:

- Pretend the uninterviewable person does not exist, and choose the next best person in the same household.
- Abandon that household, and choose a person in a neighbouring household.
- Don't choose a substitute at all, so that the final sample size is one less.

There are arguments for and against all three of these approaches. Usually the second method is best, because the other two methods will distort the sample slightly.

It's important to distinguish between somebody who cannot be interviewed, and somebody who is not in the target population. If the survey is trying to represent the whole population of an area, people should not be excluded because they do not take part in the activity the survey is studying. For example, if you are doing a survey of radio listening, and trying to find out what percentage of the population listen to radio, people who never listen to radio must be included in the survey - otherwise you'd find that 100% of people listen to radio.

Even if some respondents don't think it's useful to interview them, don't need to answer many questions, they should at least be counted.

Some interviewers think that people who don't do the activity cannot be interviewed. An important part of interviewer training is to make interviewers understand the difference between those who don't do the activity, and those who can't be interviewed. Mistakes in this area will seriously affect the results of the survey. At the end of a survey, the percentage of potential respondents declared uninterviewable should be calculated for each interviewer. If any interviewer has more than a few percent in this category, all these cases should be carefully investigated.

LESSON 13:
INTERVIEWING

Topics Covered

Interview, Finding, Identifying, Introductions, Techniques, Finishing, Verifying, Paperwork.

Objectives

Upon completion of this Lesson, you should be able to:

- Choosing the place of interview.
- Finding interviewers.
- Finding people at home.
- Identifying the right respondent.
- Introductions. Interviewing techniques.
- Finishing an interview.
- Verifying interviews.
- Paperwork for interviewers.

Interviewing

When a suitable respondent has been found, and is ready to be interviewed, at last the interview can begin. It's now time to introduce the survey.

Introductions

When a likely respondent has been found, the interviewer now needs to briefly explain the purpose of the survey. In a country where most people have never been interviewed, the interviewer may also need to explain what a survey is, and how it works.

Many survey organizations have a printed introduction on each questionnaire, and require the interviewers to read this aloud. To me, this always sounds very stilted, and it's not a good way of persuading people to take part in the survey - which is the whole purpose of an introduction. Instead, I ask each interviewer to develop his or her own introduction, including:

- The name of the interviewer -
- The organization responsible for the survey (either the research group or the client)
- The subject matter of the survey
- The general purpose of the survey (in the case of media surveys, this is usually "to improve the programs")
- The average time of the interview
- Making it clear that participation is voluntary (but without encouraging refusal)
- An assurance of confidentiality.

Here 's an example of an introduction.

"Hello, my name is Prem Chopra. I'm working for Audience Dialogue, and we're doing a survey with owners of new houses about the reasons why people choose to live in particular areas. The purpose of the survey is to improve the planning of housing facilities. So I'd like to ask you some questions. This will take between 10 and 20 minutes, and all your answers will be kept strictly confidential. So may I interview you, please? Is it OK now, or can I make an appointment for another day?"

This was from a telephone survey in Delhi. For a face-to-face interview, introductions are usually longer than this, and in other countries, a much longer and more eloquent introduction could be expected.

After the introduction, when the respondent has agreed to participate (but before the questions begin) the interviewer can give further information about the process. This can include:

- the respondent can withdraw cooperation at any time;
- the respondent can refuse to answer individual questions ;
- a more detailed explanation of the confidentiality provisions: "The only reason I'm asking your name is so that my supervisor can check up on me, to make sure I've really interviewed you."

The respondent at this point is invited to ask any questions about the survey.

Creating a Comfortable Setting

Before the interview can begin, the respondent needs to feel at ease, not threatened in any way, and not hurried. If the interview will last more than a few minutes, it's usually best to sit down. In some countries, a research interview is such an unusual activity that it may attract a lot of onlookers. I've seen interviews in developing countries where more than 20 people were watching and listening. This doesn't make it easy for a respondent - but the same person may also feel uncomfortable closeted indoors with the interviewer, particularly one of the opposite sex. If the respondent is a woman, and her children are hanging around, this can be a great distraction. It's often best for the interviewer to take responsibility for shooing away onlookers, explaining to them that the respondent has been selected at random, and that this is a private matter.

If some emergency happens in the middle of an interview - e.g. a child hurting itself - the interviewer should offer to suspend the interview, and return later to finish it.

The Actual Interview

After you have located a respondent, persuaded him or her to take part in the survey, and explained its purpose, the actual interviewing is perhaps the easiest part of the process.

All the interviewer needs to do is to read out the questions, follow the instructions, and record the answers given.

If all goes well, it is very simple - but some respondents aren't easy to deal with. What do you do when people misunderstand the questions, give irrelevant answers, refuse to answer some questions, and so on?

If an interviewer seems not to understand a question, the first step is to repeat it, but more slowly. The reason for this is that interviewers unconsciously speed up. By the time they are

interviewing their 20th respondent, they usually know the questions by heart. There's a tendency to speed up, to gabble the question quickly. But each respondent is hearing the question for the first time, and will need a few seconds to absorb its full meaning.

When a respondent gives an answer that's clearly irrelevant, the interviewer should say something like "I'm not sure if you heard that question properly. Let me repeat it...."

When the Respondent doesn't Understand the Question

If, after a question is repeated, the respondent still doesn't understand or is unable to answer, interviewers are tempted to rephrase the question in simpler language. Most books on surveys (and most survey organizations) say interviewers must never do this, but if a question is badly worded, an interviewer will usually try to get a valid answer.

One solution to this, of course, is to make sure that a question (if it is the multiple-choice type) covers all possible alternatives, that it is unambiguous, and that it is short enough to remember in its entirety.

Research on question wording has found that some types of question - particularly questions about attitudes and beliefs - are very sensitive to changes of wording. In some cases, changing a single word can radically change the spread of answers. For other types of question - about observable facts, such as age group - the answers don't vary much with changes in wording - but these questions are usually understood clearly by respondents.

Despite the wishes of questionnaire writers, interviewers will reword questions - specially in situations where they cannot be checked, such as door-to-door surveys. To avoid this, training must be very thorough, and you must explain to interviewers how the wording can affect the responses. If interviewers are treated as speaking-machines (as in many large market research companies) the survey results will not be as accurate as possible.

In a survey, every multiple-choice question should allow for all possible answers, but sometimes this doesn't happen, and a respondent may give an answer that's not a listed alternative.

In this case, my advice is for the interviewer to write in the answer that the respondent gives.

Probing

If an interviewer asks a question without also giving an exhaustive list of possible answers, the respondent may not answer it in the way intended, or may not give a full answer. This calls for probing - which means asking follow-up questions to clarify the initial answer given by a respondent.

The more vaguely a question is worded, the more likely that the interviewer will need to probe for an answer. Sometimes a question is intentionally worded very loosely. This is perhaps commonest when the survey organizers want to see how many respondents mention a particular thing of special interest, but don't want to put words into people's mouths by listing this thing (whatever it is) as a possible answer.

Probing is better described by example, rather than being explained in detail. Let's take a question, and find out how to get more detail out of the answers. We'll start with a very vague question, "What's your opinion of the Prime Minister?" I'm not recommending this as a real question in a survey, as it's too vague to be useful for most purposes; respondents are likely to give all sorts of different answers which simply cannot be compared. Any question as feeble as this should have been weeded out at the piloting stage of a questionnaire - but if you can probe this one, you can probe anything - specially when the respondent avoids giving detailed answers.

Interviewer: What do you think of the Prime Minister?

Respondent: Oh, he's OK, I guess.

As usual, a vague question gets a vague answer. The interviewer now needs to probe, to make the answer more specific, but without biasing the answer by making specific suggestions to the respondent.

General Probes

There are some probe questions that can be used in practically any situation, regardless of the previous answer. These include:

"Can you tell me some more about that?"

"Can you give some more details?"

"What do you mean by that?"

"Mmm-hmm."

"Yes?"

"Can you explain that a bit more?"

"In what way?"

"I see..."

Pausing for several seconds, when an answer seems incomplete.

Similar phrases, which are not acceptable in probing, are "Good" and "That's right." Respondents could take these to mean that the interviewer agrees with and/or is satisfied with the content of the answers; this could bias later answers.

Specific Probes

Specific probes (unlike the general probes just listed) are related to the last answer given. For example, a suitable probe questions to follow up the answer "Oh, he's OK, I guess" would be "In what ways is he OK?" Notice the use of the plural "ways" not "way": the assumption is that there is more than one answer to be given. To continue the imaginary dialogue:

Interviewer: In what ways would you say he's OK?

Respondent: Well at least he's better than the other man .

Interviewer: Who's "that other man"?

Respondent: The P.M. before him, I can't remember his name.

Notice that probing has two elements: expanding on the answer, and making it clearer. For example, the interviewer had to ask who the "other man" was. It would have been unwise not to ask, and to assume (for example) that the respondent meant the leader of the opposition.

Interviewer: Can you give any examples of how this Prime Minister is better than the previous one?

Respondent (after a long pause): He seems to stick to his promises a bit better.

The interviewer is getting onto slightly dangerous ground here, by asking for examples, as the question being probed simply asked for an opinion, not the facts that supported it. However as the respondent didn't directly answer the first probe question, a more drastic than usual measure is called for, to get the respondent to give a more direct answer. After a slight departure from the question, it's now time to return to it:

Interviewer: Are there any other opinions you have about the Prime Minister?

Respondent: Well I suppose he's good enough to vote for again, when I think of the one before him.

Interviewer: So to summarize your answer, you think the Prime Minister is OK, better than the previous one because he seems to stick to his promises a lot better, and good enough to vote for again. Is there anything else you'd add to that?

Respondent (very bored by now): No, that's all.

The interviewer ends by asking "Is there anything else?" or "Have I left out anything?"

The obvious danger in probing is creating an attitude where none really existed. It's common to find respondents like the one in this example, whose opinions are not coherently formed. The interviewer could have probed further, and the respondent might have obligingly manufactured a detailed opinion on the spot. However, if another interviewer had come along a month or two later asking the same question, and the respondent had forgotten the answer he gave the first time, the second interviewer's probing could construct a totally different answer, building up from whatever aspect the respondent happened to think of first.

Though the above example may make probing seem difficult, I deliberately chose an over-vague question and an uncooperative respondent. Usually the progress flows much more smoothly. The art lies in knowing what to ask, when. A good tactic, if you are a trainee interviewer, is to memorize some of the stock phrases and try probing your friends and family in normal conversation. The longer they take to notice what's happening, the better you are doing it! After a little practice, you'll find it comes quite naturally.

Another skill to learn is when to stop probing. Sometimes respondents start to feel very twitchy when they realize what is happening, and they can see no end to this barrage of detailed questioning. If you detect signs of defensiveness, explain why you are probing: "Often people can't think straight away of the full answers they'd want to give, so I'm trying to help you make sure you don't miss giving part of the answer." Maintaining the right tone of voice while probing will usually help to prevent a defensive reaction.

When recording the answers given in probing, write down each statement as it is made, word for word. It's the convention to separate each probe by a slash. General comments by the interviewer are often helpful, and are usually enclosed in brackets.) Thus the interviewer in the above example would have written:

At least he's better than other guy / i.e. previous PM, can't remember name/ seems to stick to his promises a bit better/ suppose he's good enough to vote for again, when think of previous one. [Gave up probing here - he didn't seem to have much of an opinion at all.]

Though it may seem tedious to write so much, the danger of summarizing the answer on the spot is that the flavour of the answer may be lost.

Probing for specific media

When a radio or TV network has several channels some audience members who use only one channel will give it the generic name. Many of these do not realize there is more than one station. So if you are asking about specific stations, and a respondent answers with the name of the organization, some probing questions are needed, e.g.

- Is the station AM or FM? (or for TV, VHF or UHF)
- What is its position on the dial? (Respondents can even be asked to go and look at a radio tuned to that station, and report on the approximate dial number)

Can you name some of your favourite programs or announcers on that station?

As long as the interviewers are well trained in the differences between the stations, they can usually work out which station a respondent is referring to.

Filling in Questionnaires

The main principles of completing questionnaires are:

- Whenever a question is asked, all the answers given must be accurately recorded.
- For all questions not asked (i.e. skipped over) nothing should be recorded.

It's also obvious that interviewers should write legibly. It's easy to say this when you're sitting in an office, but when an interview is being done outdoors, in wind and rain, it's not surprising that completed questionnaires are sometimes hard to read. So it's important, when designing a questionnaire, to allow plenty of space for the interviewer to write open-ended answers. Any money saved in the cost of paper for questionnaires is usually more than wasted in extra coding costs.

A good practice is to give interviewers more questionnaires than they will need - about 20% more. Ask interviewers to recopy any questionnaires that will be hard to read, and to send in both the original questionnaire and the copy (with COPY written on it). Then if any discrepancies are found with the neat copy, the untidy original is there to be referred to. When copying questionnaires, interviewers usually copy the words exactly, but sometimes forget to circle codes, tick boxes, etc.

LESSON 14:
SURVEY

Topics Covered

Survey, Telephonic, Mails, Introductions, Conversion, Call logs, Design, Followups.,Receiving, Fax surveys.

Objectives

Upon completion of this Lesson, you should be able to:

- Understanding Surveys
- Identifing respondents for telephonic surveys.
- Knowing how to do a refusal conversion.
- Wrting a Call logs.
- Questionnaire design.
- How to do Followups.
- Receiving completed questionnaires.
- How to do Fax surveys.

This Research Note focuses on the topic of action planning; the process of developing actions to address concerns raised by survey results.

Some of our clients are conducting Audience/ Viewer studies. Though we highly recommend involving survey respondents in this part of the survey process, we recognize that this is sometimes more easily done with general survey projects than with Audience/ Viewer surveys, due to proximity and the potential number of respondents. Part of this document will discuss a method we have found effective for Audience/ Viewer involvement in the action planning process.

The goal of a satisfaction survey, for Audience/ Viewers, is not simply to measure the strengths and opportunities of a channel. The survey is the initial step in an on-going process designed to:

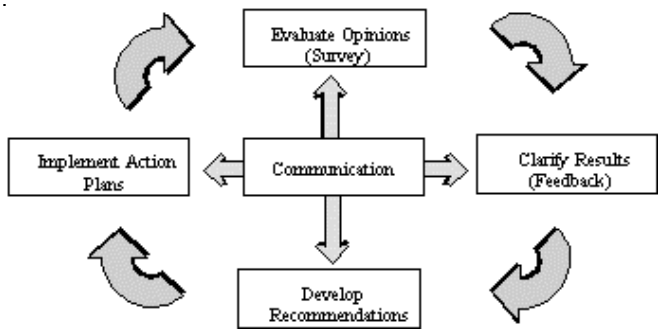
- maintain and improve superior performance
- improve viewer ship
- build credibility
- actively involve Audience/ Viewers in becoming partners with program in the success of the channel
- increase Audience/ Viewer retention

From this perspective, what happens after the survey has been developed and administered is just as important as ensuring that the survey content reflects the goals of the survey.

Responsible survey communication involves discussion about **not only** what is happening but why it is happening. Recall that when you distributed the surveys, you informed respondents about the survey, why it was happening, and what you intended to accomplish with the process. This initial communication can stimulate interest for respondents. Many of them will be interested to hear about the survey results. More importantly, they will want to know what will change because of those results.

Action Planning in the Survey Process

During the action planning process for any survey, management has a unique opportunity to be responsive to viewers about important concerns. For Audience/ Viewer surveys, the opportunity is similar, though the goal is to involve viewers in identifying internal processes that may be causing problems perceived during programming. In either case, as the following figure suggests, communication lies at the heart of the survey process and is crucial at every stage.



This communication can be a powerful tool for building and managing credibility. Each part of the survey cycle should communicate respect for the survey respondents and commitment to using the results for positive change. This commitment for positive change is evident when an organization takes the time to involve the right people, (i.e., readers and/or Audience/ Viewers) to properly understand the data and develop appropriately responsive action plans.

What if we skipped the feedback session and went right into the action planning process? Why isn't it enough to tell respondents about the plans for change? Consider a respondent who does not hear the survey results and observes channel actions that do not reflect the responses he or she personally indicated. That respondent is then left with an unfavorable view of the survey process and organizational credibility may suffer. Whereas, when an organization shares the results, respondents have the opportunity to understand that some of their opinions may not coincide with the majority of survey respondents. This gives respondents time to adjust their expectations so that when action is taken, it can be seen as appropriate. Therefore, it is important to provide respondents with information about survey feedback as well as action plans.

Using the feedback process to stimulate action planning gives management an opportunity to bring respondents and viewers together to jointly focus on positive action rather than negative feedback.

Involving Audience/ Viewers

Involving Audience/ Viewers in the action planning process can be a challenge. Due to distance and potential numbers of participants, it can also be expensive. We have found that an effective way to involve Audience/ Viewers in this part of the process is by expanding on Audience/ Viewer contact groups.

Audience/ Viewer contact groups are initially used to bring together a cross-section of Channel viewers from different departments and an appropriate sample of survey respondents to discuss and clarify survey results. These groups can also be effective for action planning. You may start the process during the initial contact group, and follow up with a group dedicated to the goal of developing effective action plans.

You can involve different samples of Audience/ Viewers for each group, and conduct more than one group to get a good understanding of the desires of your Audience/ Viewers. Though for larger companies, it would be almost impossible to involve all of your Audience/ Viewers in these groups, you can make your Audience/ Viewers aware of the groups. Mention that the participants were chosen by random sample (so Audience/ Viewers won't wonder why they weren't chosen) and discuss the resulting action plans. This can be accomplished in a newsletter, a commercial, or other creative ways. Let your Audience/ Viewers know you are involving them to direct your Channel. This can serve not only to give you solid Audience/ Viewer information, but also to increase Audience/ Viewer loyalty.

Ensuring Success

To increase the success of your action planning process, consider the following steps:

- Based on a solid understanding of your Audience/ Viewers, develop (or revise) and communicate your Channel's vision
- Develop a series of action plans to move you toward achieving that vision
- Write the plans with clear, concise directions for implementation
- Prioritize your plans
- Implement the plans and develop a system for evaluating progress to keeping the action on track

Vision

Robert Hunter said, "If you plant ice you're going to harvest wind." His words are particularly relevant for the action planning process. Change for the sake of change is a meaningless exercise that accomplishes little and often leads to disaster. Successful action planning requires a vision.

It is likely that you are all familiar with vision statements. We define them as a succinct statement about what an organization aims to achieve or the role it desires to fill. The purpose of the vision is to focus the efforts of the organization to get all levels working toward a common goal. Referring to the vision frequently during the action planning process provides a common touchstone for all organizational change efforts and serves to place activities in their proper context.

Development

The purpose of the action plan is to show the organization's concern and develop a method to respond to the issues identified in the survey. Unfortunately, the place where a survey usually breaks down is in taking action. As a result, it is important to have a process for planning and implementing action.

There are any number of ways to do action planning, none of which is necessarily more right than the others. However, there are a number of suggestions we can make that apply to all methods of action planning.

Perhaps first and foremost is to maintain and demonstrate top management commitment. Time and again you hear that top management support is crucial for any undertaking. This is never more true than during the action planning process. Without demonstrated top management support nothing will happen and a big opportunity will be lost.

The second suggestion is to monitor the pace of the change. Initially there will be a strong sense of urgency to complete the changes and get moving with the new and improved organization. Don't rush into anything. Be deliberate in deciding what to do and then introduce the changes at a comfortable pace.

Third, communicate. We indicated earlier that communication was at the heart of the feedback and action planning process. You need to communicate with viewers and Audience/ Viewers about what is happening, why it is happening, what they can expect, and how the change fits with the Channel's long range vision. Tie the actions back to the survey results as a way of explaining the events and keep people informed of events as they develop.

Fourth, involve respondents in the process. Research suggests that people are more supportive of actions and changes that they "own." Therefore, involving them in the action planning process will help ensure that they are supportive of the changes you implement.

Fifth, make sure that individuals involved in the action planning are accountable for implementing their actions. Occasional status reports ensure that people will continue to work on the projects. Tying compensation or reviews to completion of the action plans is also a possibility.

Finally, focus on a few things at a time. Too many changes at one time is a recipe for disaster. Select the critical few factors and work them. Then, upon completion, select a few others. A change in any part of the organization is likely to have an effect on other parts of the organization, whether intended or not. Consequently, you don't want to engage in a number of activities that, while appearing independent, have unplanned effects on the organization.

Prioritizing

How do you select which factors to work on? There are several ways. If your survey allowed viewers or Audience/ Viewers to rank their priorities for change, you have an excellent starting point. If, however, you don't have such data, use the data reports. You can focus on areas with the highest percentage of unfavorable ratings. Reports showing key indicators of satisfaction (through regression analysis), opportunity mapping

(through correlation studies), and other reporting, such as Audience/ Viewer profiling, can all be important information to help you prioritize your plans. Also, examine the responses to the open-ended question or comments section. This is a rich source of information as it can "flesh out" the responses to the survey items and provide additional information about areas not included in the survey body.

Another way to prioritize is to use the information gathered in the feedback sessions. Summarizing the information gathered in these sessions should give you a sense of what employees and Audience/ Viewers feel are issues requiring attention.

Writing the Plans

At a minimum, when you communicate your plans to management, Audience/ Viewer, or employee groups, you need to include:

- A brief description of the problem or issue
- A brief description of the proposed action
- The name of the person(s) responsible for implementation and status reporting
- Starting date and proposed completion date
- A brief description of how the action plan's effectiveness will be evaluated

Implementing Action Plans

Once the action plans are developed there will be a tendency to jump right into full scale change. Depending on the action, it may be wise to select a pilot group (team, department, etc.) as a test case. Gather information from that pilot group about the changes you have made and ways that the process could be fine-tuned. Change the methods of intervention appropriately and apply them to the rest of the Channel. If you become very ambitious you can conduct a quasi experiment by introducing a change to one unit while keeping other units constant. After a specified time, compare the test unit to the control units to determine if the intervention has the desired effect. Be sure to consult a researcher before engaging in this activity so that you can control all the variables in order to make meaningful comparisons between your groups. Once you are sure that your change is beneficial, make changes in a larger unit.

During this implementation phase one of the most important things you can do is to continue communicating with your employees. Remind them about what you are doing and why you are doing it. Talk about the survey results and link your actions back to those results. Celebrate successes. Consider being equally candid about wrong starts but be sure to describe explicitly what you learned from them and how you will use this information.

Be sure to maintain accountability during the implementation: gather information about how the changes are working, check to ensure that timelines are being met, continue communication, and require updates on progress. One of the worst things that can happen is that you start to implement a plan and then stop in the middle. The changes you are making are important, not only to you, your employees, and your organization, but most importantly, to your Audience/ Viewers. You do not want to engage in action planning half-heartedly; it requires commitment and dedication of resources.

Once you have implemented your changes and there has been enough time for people to adjust to them, it is time to re-survey. This can be either a mini-survey on areas affected by the change or it can be a full-scale survey so you can compare your current state against both your internal benchmark and your future goal.

LESSON 15:
SURVEY – TELEPHONIC SURVEY

Topics Covered

Survey, Telephonic, Mails, Introductions, Conversion, Call logs, Design, Followups.,Receiving, Fax surveys.

Objectives

Upon completion of this Lesson, you should be able to:

- Understanding Surveys
- Identifing respondents for telephonic surveys.
- Knowing how to do a refusal conversion.
- Wrting a Call logs.
- Questionnaire design.
- How to do Followups.
- Receiving completed questionnaires.
- How to do Fax surveys.

Telephone Surveys

Most of what has been written in the earlier chapters of this coursepack also applies to telephone surveys, but for telephone surveys some things are different: in particular, sampling and some aspects of interviewing. These are covered in this chapter.

1. Sampling Telephone Numbers

When you are doing a telephone survey of the general population, there are two methods of sampling: from a telephone directory, or by random digit dialling. Both methods work, but both have their problems.

Sampling from Telephone Directories

A telephone directory is not a complete list of the residential phone numbers in an area. For example, in Australia about 10% to 15% of residential numbers are “silent”: unlisted, by the owner’s request. Other numbers are unlisted because they have been connected after the directory went to press. Australian directories are already three to six months out of date when issued; as new directories are published about once a year, they are up to 18 months out of date at the end of their issue period. On average, a directory is a year out of date, and between 10% and 20% of residential entries change each year.

Though the names attached to the numbers turn over fairly rapidly, the numbers themselves are much more stable, and generally continue from year to year. When somebody moves to another exchange area, the new resident often takes over the telephone number; when people move only a short distance (within the same exchange area) they usually take their old telephone number to their new address. When a subscriber leaves an address, and the new resident does not take over the phone number, it is usually reallocated to a different address in the same exchange area, after about six months.

Because the numbers are more stable than the names or addresses, telephone surveys normally use only the numbers, regardless of whether the corresponding name or address is the same as it was when the directory was printed.

Unlike door to door surveys, which normally use cluster sampling, clustering is not used in telephone surveys. The main purpose of clustering is to save on interviewer travel expenses, which don’t exist in telephone surveys. Because clustering tends to reduce the effective sample size, telephone surveys can use smaller samples than door-to-door surveys.

The first stage in drawing a sample from a telephone directory is to calculate how many telephone numbers are required. Begin with the sample size you want, then enlarge that figure to allow for refusals to be interviewed, ineligible numbers, and numbers which are not answered.

Also decide how many people should be interviewed at each household contacted. Do you want to interview only one person per household, or all adults, or base the number of interviews on the number of people in the household? As interviewing more than one person per household saves very little money, and interviewing more than one per household reduces the effective sample size (qv), it’s normal to interview only one person at each phone number.

How many Telephone Numbers to Sample

When you draw a sample of numbers from a telephone directory, many of these don’t result in interviews. This experience would be fairly typical:
Begin with 100 entries.
30 are business entries - leaving 70.
Attempt to ring 70 numbers. 5 turn out to be disconnected.
After many attempts, only 40 answer.
10 of the 40 refuse to participate in the survey.
This leaves 30 successful interviews from the 100 numbers.

If the area you want to survey is only a small part of the area covered by the telephone directory, and the directory has a single set of alphabetical entries, you will have to look through many more than 100 entries to find 100 in the survey area.

Another problem arises if you don’t want to interview at all households, but only those that meet certain criteria - e.g. listening to your radio station. If only one person in 3 listens to your station, you’d get only about 10 interviews (instead of 30) from the list of 100 numbers.

The percentage of entries that are businesses varies greatly between directories, and is often higher with small directories than those from large cities.

The refusal rate can be anything between 1% and 40%, depending mainly on the skills of the interviewer, and where the respondent lives (refusals are much more common in big cities), but very little on the subject matter. With inexperienced interviewers, to be on the safe side one should allow for a fairly high refusal rate of say 25% in countries where phone surveys

have been widely used. In areas where almost no phone surveys have been done before, refusal rates are usually very low, often less than 1%.

The proportion of numbers which are never answered depends mainly on how many times an unanswered number is re-rung. If you ring back up to 10 times, at varying times of day and days of week, leaving at least two weeks between the initial and final attempts, you can reach 90 to 95% of numbers - except in areas which have many holiday homes inhabited only a short part of each year. If you don't have the patience or the resources to keep trying for so long, you should try at least three times to reach each number - varying the time of day and day of week - and you will usually succeed in reaching 85 to 90% of the telephone numbers.

Drawing Samples from Phone Directories

Selecting Columns

If you need more numbers than there are usable columns in a directory, you'll need to select several line numbers in each column. If you need fewer numbers than columns, you'd select one line number, but not use every column.

In fact, phone directories are not always printed accurately, and sometimes the first line fully visible above the template may be line 19 or 17. Too bad. Think of the choice of line 18 as referring to a particular place on the page, rather than a particular line number. It won't upset the results of the survey.

As you look at line 18 (or whatever) in each selected column, copy it out if it is a residential entry with a number on that line, and ignore it if it is:

a. a business-only entry, or

b. a line without a telephone number on it (i.e. the first line of a multiple-line entry), or

c. a residential entry outside the area to be surveyed.

If it is a "after hours" listing as part of a business entry, and a name is given (as in the B. Bloggs example above), see if there is a main entry under that name. If there is, ignore the business "after hours" listing. If not, or if no name is given, accept the "after hours" listing as a valid number to be surveyed. If you're not sure whether a business is also a residence, include the number on the list to be rung, and reject it later if it is only a business.

Avoid Biases in Unused Numbers

In this way, you build up a list of residential numbers to be surveyed. You shouldn't need to use all the numbers, so take steps to avoid any consistent pattern in the numbers which are unused.

To ensure that all sections of the phone directory are represented, call the sampled numbers in a different order from their sequence in the directory. This will mean that the numbers that are not called will come from all parts of the directory.

The easiest way to do this is to copy each number onto a separate call log: a piece of paper which will record the history of calling that number. Before doing any interviews, shuffle the logs into random order.

Even if you know the allocated number ranges, you still have to contend with many non-existent numbers.

Sometimes, when you dial a nonexistent number, you get the appropriate "no such number" dial tone. However, in some areas, dialling a nonexistent number will produce the same tone as a telephone that is ringing and not being answered. In this case you can never be sure whether a number is nonexistent, or whether its owners are seldom home. When you suspect that a particular number may not be connected, the telephone authority will usually verify this for you. But when you give the authority a list of 100 possibly non-existed numbers, it's less likely to co-operate.

When you have chosen a sample using random digit dialling, interviewing should not simply begin with the lowest number selected, and work up to the highest. The danger is that the highest-numbered prefixes, (which probably correspond with particular geographical areas) may not be used, if you have selected more numbers than you'll eventually need. Therefore, the order in which the selected numbers are rung should be randomized, so that no bias is caused by unused numbers being concentrated in a few localities.

If you are conducting a telephone survey over a wide area, it can become quite expensive to make all calls from a central base. On the other hand, if all calls are made from one location, you have much better control over the workload, if any reallocation is needed. Quality control is also better when all the interviewing is done from a single office, as it's easier to make sure that each interviewer is using a standardized approach.

Telephone Interviewing

Most of the time, telephone interviewing is not very different from face-to-face interviewing - but the lack of vision makes it harder for interviewers and respondents to communicate well, so extra steps have to be taken to compensate for this.

The rest of this chapter describes some of the peculiarities of telephone interviewing: call logs, work flow, and how interviewers need to adapt to invisible respondents.

Call logs

After experimenting with various ways of recording the progress of telephone interviews, we found that the Call Log is the simplest. A call log is a piece of paper: there is one for each telephone number to be called in a survey.

Call logs are an excellent method of managing work flow in a telephone survey. Interviewers have several heaps of call logs on their desks: one heap they are currently working from, and other heaps for each type of call outcome.

Here's an example:

CALL LOG Phone (0. . . .) . . . . . Interview. . .

Name . . . . . .
Directory page . . .

Try Day Date Start time Stop time Interviewer Result*

1

2

3

4

5

6

* NOT ANSWERED... * ANSWERED...

G = Gave up after 10 rings B = Business number

E = Engaged N = No English spoken

F = Fax machine or computer R = Refused immediately

D = Disconnected number S = Spoke to somebody in household

A = Answering machine L = Ring back later: fill in below

"Good [evening], is that [number]? My name is [name] from Bloggly Research. We're doing a survey of radio listening and your phone number has come up. I'd like to ask a few questions about radio listening in your household. I need to speak to the [oldest/youngest] [man/woman] *[if youngest:*aged 15 or over] who lives there. Is that person there now?"

If the selected person is not home, arrange to ring back later. Also arrange to ring back later if the selected person is home, but too busy to speak now.

Tick one box:
[ ] Interviewed immediately
[ ] Ring back about . . . . . am/pm on . . . . .day and ask for . . . . . .
[ ] Refused, because . . . . . .

- Call logs should be quite small, because interviewers will have several heaps of them on their desks. A5 (about 15 by 21 centimetres) is a good size.

The above example of a call log is a large one, because it has the entire introductory script for the survey. This is easier for inexperienced interviewers, but it fills a whole A4 sheet of paper. More experienced interviewers can have the script on one piece of paper, and write the call details (day, time, and result of call) on a much smaller piece of paper or a card.

Before the interviewers receive these call logs, several items are written at the top:

- the phone number to be rung (essential)
- the surname from the directory, or page number (in case there's a mistake, and you need to check back with the directory)
- the type of person to be interviewed.

There are several ways to find the respondent within a household, as discussed in the Sampling chapter. The above call log is designed to have YM, OM, YW, or OW written in the "Interview" space at the top right, showing whether to try to interview the youngest man in the household, the oldest man, the youngest woman, or the oldest woman.

If a call result is anything except the common listed outcomes (one-letter codes), a brief description is written in the Result column.

The interviewer writes his or her initials in the Interviewer column.

When the interviewer ticks the box labelled Interviewed Immediately, he or she picks up a questionnaire and begins the actual interview.

It's quite possible to have a call log printed as the first page of each questionnaire, but many telephone numbers don't result in interviews, so this method will waste a lot of paper.

If you want to improve your survey methods, the call logs can be entered into a computer (each log as one case) and analysed. Among the most useful items to enter are:

- Prefix (which gives the exchange area)
- Number of call attempts
- Final result
- Number of charged calls

This information can be used to calculate response rates, check telephone charges. and so on.

Introductions in Telephone Interviews

1. Avoiding refusals

The first few seconds of a telephone interview are vitally important in communicating the information needed. Imagine you're a respondent. Your telephone rings. You pick it up, and a stranger's voice begins to explain something about asking you questions. Immediately, you are wary. What does this stranger want from you? Now they are asking which person in your household last had a birthday. They are talking in a strange kind of way, as if they are reading aloud. You are suspicious. Why do they want to know that? Is this a new kind of sales pitch? Why do they want to speak to your daughter? Now they are talking about a survey. Last week, a friend told you that somebody rang him up, mentioning a survey, but really trying to sell insurance. Another friend told you about a survey phone call: the interviewer said it would take "a few minutes" but it lasted almost an hour.

You decide you want nothing to do with this survey. "We're not interested," you say. "Goodbye."

On the other end of the telephone line, the interviewer notes down yet another refusal.

In the richer countries, about one telephone call in three ends with a refusal. Most of these refusals seem to arise through suspicion, or bad experiences with similar calls in the past. Commercial firms often telephone people to try to sell things to them. This can become so common, and so annoying, that people defend themselves by having answering machines and unlisted numbers. (They don't know that an unlisted number is no defence against random digit dialling.)

The best way to overcome this high refusal rate is by establishing a genuine dialogue with respondents. You have perhaps 30 seconds to convince them that your survey will benefit them in some way.

Approaches we have found successful are:

1. If the respondent has had any previous contact with you, establish this immediately. For example "Could I speak to [name of person you want]?" When the person you want is there, say something like "I'm ringing on behalf of the Researcher (Name). I understand that you were a subscriber last year - is that right?"

   When the respondent remembers some prior dealing with your organization, refusal rates are usually negligible.

2. When you are surveying the general population, and your organization is not well known, refusal rates are likely to be high. In this case, two quite different approaches have both worked well for us:

   2a. Spend about a minute describing your organization, and the purpose of the survey you are doing. Only then, tell them that you'd like their opinions.

   2b. Immediately start to question the respondent, with no preliminary explanation. After the first few questions have aroused their interest, you can explain your purpose. This is almost a way of tricking people into answering questions, It works well, but for ethical reasons, I don't recommend it - specially if any answers could harm the respondent in any possible way, or respondents might regret giving any answers.

3. Assure respondents that you are not trying to sell them anything.

4. In Australia, we found lower refusal rates when we didn't mention the word *survey*. (There are so many pseudo-surveys around.) Instead, our interviewers said "I'd like to ask you a few questions."

5. Some interviewers have much higher refusal rates than others. Those who speak cheerfully, quickly, and confidently do best, while interviewers who speak slowly, hesitantly, or seem to lack confidence have much higher refusal rates.

6. Most refusals happen in the first minute of a call. Therefore, the first few questions should be interesting to the respondent, not ask for any confidential information, and not be difficult to answer.

Informing Respondents

In countries where telephone surveys are very frequent, refusals are the main problem. In countries where telephone surveys are rare, the main problem is not willingness to co-operate, but respondents' lack of understanding of the procedure: "Why does this strange man want to talk to the youngest female in my household, not counting any children under 15?"

Respondents should be told that they may decline to answer any question. You should also tell them:

- the expected duration of the interview, e.g. "most people take about 15 to 20 minutes"
- whether anybody else at the interviewer's end will be able to overhear it, and
- whether the answers they give will have their name attached or be able to be read by anybody else in the survey group or the organization commissioning the research.

LESSON 16:
SURVEYS- MAIL SURVEY

Topics Covered

Survey, Telephonic, Mails, Introductions, Conversion, Call logs, Design, Followups.,Receiving, Fax surveys.

Objectives

Upon completion of this Lesson, you should be able to:

- Understanding Surveys
- Identifing respondents for telephonic surveys.
- Knowing how to do a refusal conversion.
- Wrting a Call logs.
- Questionnaire design.
- How to do Followups.
- Receiving completed questionnaires.
- How to do Fax surveys.

Mail Surveys

Sometimes the most appropriate way to do a survey is by mail. If most of the following conditions apply, a mail survey could be the best type to use:

- You have a complete list of names and addresses of the population to be surveyed - such as members of an organization.
- People in this population are able to read and write well, and have an above-average level of education. (It's often more difficult to complete a written questionnaire than a spoken one.)
- The people can be expected to have an interest in the success of the organization sponsoring the survey. For example, they are regular listeners to a radio station. Without this interest, the response rate is likely to be very low.
- You're not in a hurry to get results. It takes time for letters to be sent out and returned. The shortest time between sending out letters and getting enough completed questionnaires back is about a month.
- The questionnaire does not include questions whose answers are likely to be different if people read through the questionnaire before answering any questions.

Any sets of questions which take the form of "Which radio stations do you listen to?" followed a little later by "What's your opinion of FM99?" are likely to produce biased results, as many people read through a questionnaire before beginning to answer it. They'll realize that FM99 is sponsoring the survey, and many people will reward the sponsor by not criticizing it.

- The respondents will need to look up information from some other source - concerning their finances, for example.
- You can't afford to spend much on a survey. Mail surveys are usually the cheapest type of survey. That's why they are so often used, even when they're not appropriate.

It's generally not worthwhile to do a mail survey with the general public. Most people simply won't answer, so you won't be able to determine how representative your results are. But when small specialized populations are to be surveyed, mail surveys can be very effective.

The biggest problem with mail surveys is a low response rate. In my experience, the minimum response rate for producing valid results is about 60%, but many mail surveys achieve less than 30% return. To overcome this, you need to make it easier and more rewarding for people to respond.

Most of this chapter also applies to other types of self-completion questionnaires - such as those distributed at events (see the chapter on event surveys), and questionnaires left by interviewers for respondents to fill in, to be collected when the interviewer returns.

Making it Easy

People who are willing to return a mail questionnaire may not get around to doing so without some prompting. For this reason it's normal to offer respondents some encouragement to mail their questionnaires back.

1. Include a Return Envelope

The first method of encouragement is an easy way to get the questionnaire back: a business reply or freepost envelope, addressed to the originator of the survey. Freepost licences are easy to obtain (in most countries), and the only costs involved are associated with printing envelopes (in a format strictly specified by the postal authority.

2. Give a Deadline

The second incentive seems trivial, but we have found it to be surprisingly effective. Simply print, near the beginning of the questionnaire, something like this:

> Please try to return this questionnaire within 7 days

The shorter the request, the better it seems to work. Though some people ignore such appeals, many take notice of this one, and it will help you get more questionnaires back, sooner.

3. Offer an incentive

Surveys that don't use interviewers tend to have much lower response rates than surveys where the interviewer speaks to the respondent. It's much easier to ignore a questionnaire that comes in the mail than to ignore a real interviewer. Therefore, mail surveys need to use incentives, to boost the response rate. There are two types of incentive, which I call psychological and financial.

An psychological incentive is a way of making people feel good about filling in a questionnaire - e.g. "If you like to use our products, please help us improve them by completing this questionnaire."

After experimenting with incentives of various types and sizes, I have reached two conclusions:

1. A small chance of winning a large amount works better than the certainty of a small amount. It's also much less work to give out one large prize than lots of tiny ones.

Judging the size of the incentive is something of an art: if the incentive is too small, many people won't bother to respond. But if you're offering a huge prize for one lucky respondent, some respondents will send in multiple questionnaires - probably not with identical answers, some even answered at random - simply to try to win the prize. Once I worked on a project with a prize of a holiday in Europe. When we sorted the file in order of respondents' addresses, we found that some had made multiple entries with slightly different versions of their address. In other households, improbably large numbers of people had returned questionnaires - and some of their names looked suspiciously like cats and dogs!

Very large prizes produce diminishing returns: when the prize is doubled, the response rate rises only a few percent. An amount that I've found effective is the value of about a day's wages for the average respondent. For most people, this would be a pleasant amount to win, but would not make them distort their answers.

Offering several small prizes doesn't work as well as one large prize - unless respondents can clearly see that they have a higher chance with a small prize - for example, one prize in each village surveyed.

Take care that the prize offered is something which won't discourage potential respondents who already have one. A poorly chosen prize can affect the accuracy of a survey. For example, a survey in the late 1980s set out to measure the musical taste of the Australian population. A compact disc player was offered as a prize. As the people who were most interested in music probably owned a CD player already, the survey would have underestimated Australians' interest in music.

In wealthy countries, the most effective kinds of prizes are often small luxury items that cannot be stored up. Vouchers for restaurant meals are often very effective. An incentive that worked well in a survey of rich businessmen was the chance to meet others of their kind: we offered a meal in a high-priced restaurant for 10 respondents.

Don't begrudge spending money on rewards: it's usually more than saved by the number of questionnaires *not* printed and mailed out to achieve an equal number of responses.

2. It's best to use two different kinds of reward at the same time: psychological incentives as well as financial ones. By psychological incentives, I mean reasoned appeals to complete a questionnaire. These arguments can appeal to either self-interest or philanthropy - sometimes both. For example:
    - Please complete the questionnaire, to help us improve our programs.
    - Broadcasting works best when there is two-way communication, so please give us your views by filling in this brief questionnaire.

    Because people who don't use a service much also tend not to respond to surveys about it, it's a good idea to add another emotional appeal, perhaps something like this:
    - Even if you don't listen to FM99 very often, your opinions are still very important to us. We're very keen to provide better services to occasional listeners, and without their feedback we can't do this.

Another type of psychological incentive is a promise to tell respondents about the survey's results. This is simplest to fulfil when you have regular contact with respondents, and notifying them of results could be as simple as putting an article in their next newsletter. One point in favour of this type of incentive is that it can work with people who are unaffected by other types of incentive.

Psychological incentives work well with regular users of a media service, but non-users don't usually have any emotional attachment. Non-users usually respond well to financial incentives, but regular users respond little to financial incentives - unless the prize is very large. That's why using both types of incentive will produce a better balanced sample than using only one type.

Questionnaire Design for Mail Surveys

Compared with questionnaires for telephone surveys (which have to be read and completed only by interviewers), self-completion questionnaires need much more care taken with their design.

Before having a questionnaire printed and mailed out, it's essential to test it thoroughly with 5 to 10 respondents: some old, some young, some not very bright. Don't use your office staff, or your friends or relatives: they know too much about your intentions. Go to strangers, who have never heard of your survey before - but if the questionnaire is only for listeners to your station, obviously the strangers should also be listeners. Sit beside them while they fill in the draft version, and ask them to think aloud.

You need to make sure that:

- there are no errors in it (specially in any skip instructions, if questions have been renumbered),
- the questions are easily understood (even by people with a limited command of the language), and
- the layout won't cause people to omit questions.

You'll find that even after you have produced many mail questionnaires, occasional problems still occur. Having 5 to 10 testers fill in your questionnaire is an excellent way of improving the survey - as long as you take notice of any problems they have, and any misunderstandings. If the testing results in extensive changes to the questionnaire, find a new lot of testers - 5 is usually enough, the second time.

Tell them Exactly How to Answer

In every question, make it clear to respondents how many answers are expected, using instructions like this - placed after the question, but before the possible answers.

Please tick one box.

Please tick all answers that apply to you.

Please give at least one answer, but no more than three.

Use a consistent method for answering. If you ask respondents to answer some questions by ticking, and others by circling code numbers, you'll find that some put ticks where they should have circled codes — and vice versa. To make it easy for most respondents, use ticks wherever possible.

In some countries (including Australia, Japan, and Ethiopia) a tick means "Yes" and a cross means "No." In other countries, such as the USA, a cross means "This applies" - which is almost the same as Yes. People from countries where a cross means No can get confused and give the opposite answers to the questionnaire writer's intention - so before printing a questionnaire for a country you don't know well, be certain which convention applies there.

One method I've used that works surprisingly well is to ask respondents to write in code numbers. Most of them write legible numbers, and this greatly speeds up the data entry. When you have a series of questions, all with the same set of possible answers, this method works well. Here's an example.

Here are some questions about programs on FM99. Please give your opinion of each program by writing one of these numbers on the line after its name:

1. if you like it very much
2. if you like it a little
3. if you don't like it
4. if you have no opinion about it

Program 1 ___

Program 2 ___

Program 3 ___

If this isn't clear to your questionnaire testers, you can add an example, before the first program name, e.g.

For example, if you have never heard of Program 2, write 4 on the line, like this

Program 1 *4*

The problem with giving examples in the questionnaire is that sometimes this encourages people to give the answer shown in the example. For that reason, it's best to choose some sort of non-answer (e.g. "does not apply") for the example - and only add an example if some testers don't understand the question.

A common mistake is to use two sets of scales that run in opposite directions. In the above example, an answer code of 1 meant "like it very much". What would happen if that set of questions was followed by this one?

These questions are about different radio stations. Please rate each station on a scale of 1 to 10, where 1 means you never listen, and 10 means you listen whenever possible.

After answering the previous set of questions, respondents may have forgotten the meanings attached to the answer codes, but they will remember that 1 is the best answer. Now they find a set of questions where 1 is the worst answer. This is guaranteed to confuse people! You can see this when some respondents cross out their first set of answers, and write beside those a reverse set of numbers, with their correct answers. Though some respondents realize they've made a mistake, others probably don't. So take care to keep the answer scales consistent - the numbers are quite arbitrary.

Also, avoid getting people to rank items, e.g.

Which of these age groups are you in? *Please tick one box*.

[ ] 10-14 [ ] 35-44

[ ] 15-19 [ ] 45-54

[ ] 20-24 [ ] 55-64

[ ] 25-34 [ ] 65 or over

more [ ] Can't remember

Note the arrow at the foot of the first column: it is used to draw the respondent's eye upwards and to the right. This doesn't matter with a question like age group - because people know their age and will be looking for the group, but for other types of question they might not notice some of the possible answers. If all a question's answers are different lengths, you'll probably have to use a single line for each - don't change the number of columns within a single question. Too confusing!

Don't lay a question out like this:

Which of these age groups are you in? *Please tick one box*.

[ ] 10-14 [ ] 15-19 [ ] 20-24 [ ] 25-34 [ ] 35-44 [ ] 45-54 [ ] 55-64

[ ] 65 or over [ ] Can't remember

You save a little space, but it's hard to read. There's too much danger of somebody ticking the box on the right of the age group instead of the box on the left.

Code Numbers

In the above examples, I didn't include code numbers for each possible answer. In the lower layout, adding code numbers would have made it even messier, but in the upper layout can take code numbers without losing clarity. I recommend that answer codes always be printed on questionnaires; this will ensure more accurate data entry. Using a regular 2-column layout, the code numbers would look like this:

Which of these age groups are you in?*Please tick one box*.

1 [ ] 10-14 5 [ ] 35-44

2 [ ] 15-19 6 [ ] 45-54

3 [ ] 20-24 7 [ ] 55-64

4 [ ] 25-34 8 [ ] 65 or over

more 9 [ ] Can't remember

The code numbers don't need to be large, and they can be in a different type from the questionnaire. As long as the layout looks clear, respondents hardly notice code numbers.

Multi-page Questionnaires

If the questionnaire is printed on both sides of a single piece of paper, some people won't notice the second side. You might think that one way to avoid this problem is to have a half-finished question at the foot of page 1, and to continue it at the top of page 2 - but I've tried this, and it doesn't work well. When a question is on one page and its possible answers on another, some people don't bother answering it. The best method to encourage people to turn the page is to put

"More..." below the last question on a page - but don't put this word in a corner where it can be overlooked. Have it in bold type, immediately after the preceding question - not out near the right-hand margin.

Missing a page is only a problem with 2-page questionnaires. When a questionnaire has more than 2 pages, respondents can feel that there are more pages after the first.

Order of Questions

Make sure the first few questions are interesting, and easy to answer. Multiple-choice questions asking about people's opinions are often good to put at the beginning. If the questions seem interesting enough, and not difficult, many people will begin to complete the questionnaire as soon as they receive it.

Open-ended questions shouldn't be too near the beginning, unless the answers will need very little thinking. If people have to think too hard about an answer, they'll often put the questionnaire away to fill in later - and perhaps never return to it.

If there are any questions which some people might be reluctant to answer, or might find difficult, put them somewhere near the middle of the questionnaire - but preferably not at the top of a page. Some people read questionnaires from the back to the front, while others look first at the top of a page. With a self-completion questionnaire (unlike a spoken interview) you have no control over the order in which respondents read the questions.

Make sure the return address is printed on the questionnaire, so that a respondent who has lost the business reply envelope is still able to return the questionnaire. This address should go at the end of the questionnaire: as soon as the respondent finishes filling it in, the address is immediately visible.

LESSON 17:
SURVEY – SURVEY PRESENTATION

Topics Covered

Survey, Telephonic, Mails, Introductions, Conversion, Call logs, Design, Followups.,Receiving, Fax surveys.

Objectives

Upon completion of this Lesson, you should be able to:

- Understanding Surveys
- Identifing respondents for telephonic surveys.
- Knowing how to do a refusal conversion.
- Wrting a Call logs.
- Questionnaire design.
- How to do Followups.
- Receiving completed questionnaires.
- How to do Fax surveys.

Style of Presentation

The standard of design and printing of the questionnaire will convey a certain meaning to respondents. The questionnaire should look thoroughly professional, but not so lavishly produced that respondents will assume it is advertising material and throw it away unread. To help readers with poor eyesight in poor light, the type should be at least 10 points, and there should be strong contrast between the ink and the paper colour. Using high-quality type and coated paper can compensate for small lettering. A long questionnaire should appear shorter and easier to fill in than it really is.

The writing style of a questionnaire is important to get right. It shouldn't be boring or official in tone, but nor should it be so flippant as to encourage incorrect answers. The best style seems to be more of a spoken style, rather than a written one. A mail questionnaire should sound like spoken conversation when read aloud.

And remember that you're writing a questionnaire, not a form. Write questions, not commands. A typical official form, designed to save paper, is often ambiguous. What do you make of this "question" - which recently saw in an amateur questionnaire:

What should you answer?

- Yes (I have some),
- No (they're not here right now),
- 2 (that's how many I have),
- 5 & 7 (their ages),
- Raju and Rohit (their names)
- or what?

If the question you want answered is "How many children under 16 live in your household?" write exactly that. Saving a little space doesn't compensate for wrong answers.

Another common error is "Name ……."

Name of what? It will surprise you how many sorts of names people will write on mail questionnaires. If you mean "Your name," why not say so? Most of these problems can be eliminated by pilot testing, if you ask the testers to try and deliberately misunderstand the questions.

Identifying Questionnaires

If you already have some data about each respondent, which you want to combine with answers from his or her questionnaire, you will need to identify who returned each questionnaire. The usual way of doing this is to print or write a serial number on each questionnaire before sending it out. You can buy stamping machines, resembling date stamps, which automatically increase the number every time you stamp them.

Another way is to stick a name and address label on each questionnaire, and use window envelopes for sending questionnaires out, so that the same label serves two purposes. When you do this, test the placement of the label on the questionnaire, and where the paper is folded - otherwise part of the name and address may not be visible through the window in the envelope.

For some types of question, respondents may not answer honestly if they know their responses are not anonymous. We have found that it's safe to encourage people to obliterate their name and/or serial number if they are worried about anonymity: usually less than 2% take up this offer. It's also a good idea to mention your privacy policy on the questionnaire, e.g. "We will not give out your personal details to any other organization."

There can be problems with unidentified questionnaire. For example, somebody with strong opinions might photocopy 100 questionnaires and return them all. But if each questionnaire has a unique number, this copying is easily discovered. Also, anonymous questionnaires are generally not filled in as well as numbered ones. For highly sensitive questions, anonymity is desirable, but mail surveys may not be the best method.

An important reason for numbering questionnaires is that, without identification, any reminders become much less effective and more expensive. If every questionnaire is numbered, you can check it off when it is returned, and send a reminder letter to people who have not returned their questionnaires. When questionnaires are not numbered, you will need to send reminder letters to the whole sample, even though most people may have already returned questionnaires.

The Covering Letter

Don't post out a questionnaire with no explanation of why you're sending it. You'll get a better response if you include a covering letter, supplying this information:

- The organization sponsoring the survey (normally shown in the letterhead).
- If the organization is not well-known, the letter should briefly explain the purpose of the survey.
- How the recipient came to be chosen.
- Why their co-operation is wanted; e.g. how the survey results will benefit them.
- What to do if they have queries — e.g. a phone number to ring.
- Exhortation to return the questionnaire without delay.
- The privacy statement (as mentioned above)

It helps if the covering letter is signed by a person the respondents have heard of. For example, when members of an organization are surveyed, the letter could be signed by the organization's president.

Research has found it makes almost no difference to the response rate if the covering letter is personally signed (as opposed to a printed signature) or personally addressed (as opposed to "Dear club member", or whatever). As both of these personal touches create a lot of extra effort, they might as well be avoided.

Printing and Posting Questionnaires

Mail surveys can involve handling formidable amounts of paper. When sending out a typical questionnaire, each outgoing envelope usually contains three items: the questionnaire, the covering letter, and a freepost or business reply envelope to return the completed questionnaire in. Attention paid to details - such as the exact way in which questionnaires are folded - can save a lot of time later.

If a questionnaire is printed on A4 size paper, and folded into three equal parts vertically (to become 99 by 210 mm), it will fit easily into the largest size envelope which still attracts postage at the basic rate: 120 by 237 mm. (This applies in Australia, but many other countries' postal regulations are similar.) The reply envelope should be intermediate in size between these two: small enough to fit in the outgoing envelope without folding, but large enough that the completed questionnaire can go in it without re-folding. We use 110 by 220 mm freepost envelopes, which are just right in this situation.

Packaging and posting out questionnaires can be a lot of effort. If you have plenty of helpers but little money, you can call for volunteers to do the mailing, and create a production line: one person numbering the questionnaires, one folding, one packing the envelopes, and so on. Fewer mistakes are made this way.

If money is no problem, there's a much easier method: use a mailing house: a company which organizes mail advertising. All you need to do, when you use a mailing house, is supply one master copy of the questionnaire and one covering letter, plus a list of names and addresses of recipients,. The mailing house will print the questionnaires and covering letters, do the packing (often using machines), and even post it all out for you. The cost of the printing and enveloping is usually about half the cost of the outgoing postage.

Reminder Letters

To get a decent response rate in mail surveys, some system of reminders is usually essential. It's best to prepare for reminders from the start: they need to be budgeted for, and ready to go at the right moment.

To know when to send a reminder, keep a record of the number of completed questionnaires arriving in the mail each day. At some point, usually about two weeks after the initial mailing (depending on on the efficiency of your country's postal system), the daily number will start to fall away markedly. Now is the time to send out reminders.

There are two methods of sending reminders. If the questionnaires are not individually identified (e.g. numbered), you have no way of knowing who has sent one back, and who hasn't. Therefore you have to sent a reminder letter to all the respondents. For example:.

We posted a questionnaire to you on 31 May. If you haven't already filled it in and returned it, please do so by 30 June, so that your answers can be included in the survey results. If you have lost the questionnaire, please ring us on 826-953, and we'll send you another copy.

If the questionnaires are identified, it's easier and cheaper. You can send a specific letter only to the people from whom you haven't yet received a completed questionnaire:

We posted a questionnaire to you on 31 May, but we haven't yet received it back from you. Please fill it in and return it by 30 June, so that your answers can be included in the survey results. If you have lost the questionnaire, please ring us on 826-953, and we'll send you another copy. If you have already sent it in, we thank you.

Notice the difference between this and the earlier reminder: "we haven't yet received it back from you" - much more specific (and more effective) than the more loosely worded reminder above. But to be able to do this, you must keep track of which questionnaires have come back, and which haven't.

One of the easiest ways to do this is to produce a large sheet of paper with every questionnaire number on it. You can easily fit 500 numbers on one piece of A4 paper: 10 numbers across (if they are short), and 50 lines down. When each questionnaire is returned, cross out its number. At any time, the numbers not crossed out are the ones which need reminders.

Alternatively, you can use a computer database program - such as Epi Info or Filemaker Pro. If you are already using a database to print the names and addresses, it's easy to add a few more fields: the date the questionnaire was returned, date of the first reminder, date of the second reminder, date a replacement questionnaire was sent, and so on. However, if you don't already have a database, it's quicker to cross the numbers off a piece of paper.

If you have phone numbers of most potential respondents, and enough helpers available, a telephone reminder will work more quickly than a mailed one.

Several weeks later, there may still be a lot of questionnaires outstanding, so it could be time for a second reminder. At this stage, the numbers involved are relatively small, and the chances are the non-respondents have lost their questionnaires and/or

return envelopes. So it's usual to send out a new questionnaire and return envelope with the second reminder.

A reminder questionnaire normally has the same identification number (or name) as the original one, but there is a way of distinguishing it from the original questionnaire. For example, the reminder questionnaire could be printed on a different colour of paper, or have a suffix added to the identification number. This prevents any person who returns two questionnaires from being counted twice.

Each successive reminder produces fewer and fewer responses, so at some stage you will need to give up — or, if you're very keen to get responses, to try a telephone call, or a visit to the household, or some other non-mail means of contact.

Receiving Completed Questionnaires

At the other end of a survey, when the completed questionnaires start arriving in the mail, mass paper-handling is again required.

The stages are:

1. Count the number of questionnaires coming back each day.
2. Open the envelopes, and unfold the questionnaires. This sounds too trivial to mention, but it can take many hours if the sample is large. If you delay this stage, you won't be able to send out reminder letters on time.
3. If the questionnaires are numbered, check off each one - e.g. cross its number off master list, showing that this respondent won't need a reminder letter. If you are using a database program, enter the details of the questionnaires that have just arrived.
4. Type the answers from completed questionnaire into the computer program you are using for data entry. You could leave this stage till all the questionnaires have come in - but the sooner you do it, the sooner you'll find if there are any problems which need to be fixed.
5. Store the questionnaires in numerical order. If some respondents have obliterated or cut off their questionnaire numbers, give these questionnaires a new number, above the highest number sent out. For example, if the highest numbered questionnaire was 1000, assign new numbers starting from 2000. Usually, no more than about 3% of respondents obliterate their numbers, even if they are told they can do so. If this possibility is not mentioned in the covering letter, less than 1% obliterate the numbers.

At some stage you have to call an end to the survey, and process the results. A principle I've found useful is to stop when the response rate increases by less than 1% in a week. Of course, if there is some external reason for a deadline, you may have to stop processing newly arrived questionnaires long before the full response is reached.

Mail Surveys: Summary

The mail survey technique is one of the easiest ways of getting valid information, but only when all the conditions are right, when questionnaires are clear and easy to follow, and when there are enough incentives to produce a satisfactory response rate. Unless the response rate is over 60%, the information from the survey will probably be useless, because you won't know how different the non-respondents are. It's therefore vital to make it as easy as possible for respondents to complete and return the questionnaires, and to follow up the non-respondents with reminder letters.

Fax Surveys

I've had recently good success at doing surveys by fax. Of course, this is only feasible when nearly the whole surveyed population has fax machines, but most businesses in developed countries can now receive faxes.

If you have a computer with fax software and mail-merge software, you don't even need to print out the questionnaires. You can prepare the questionnaire with a word processing program, set up a mailing list of recipients' fax numbers, and send all the questionnaires from your computer. If you then make another copy of the mailing list, and delete entries from it whenever a questionnaire is returned, you can use this shorter mailing list to send reminders. As a short fax is (in most countries) cheaper than sending a letter, it's economic to send quite a lot of reminders, thus increasing response rates.

Some people get annoyed when unwanted faxes use up their paper, so these surveys should be kept short: preferably one page. As it's then very easy for somebody to fill in the questionnaire, and fax it straight back to you, the responses for fax surveys come back much more quickly than for mail surveys.

Perhaps this is because fax surveys are a novelty. If they become common, the response rates could quickly become very low indeed. The secret is to keep the questionnaires short and interesting, and to keep sending reminders.

Basic Survey Analysis

Now you've done a survey, and the questionnaires are all filled in - what happens next? This chapter is about processing completed questionnaires: analysing them, and reporting on the results.

Even in developing countries, most surveys are analysed by computer these days. In case you don't have access to a computer, I've also included a section on manual analysis - which for a small survey can be quicker than computer analysis.

Safeguarding Completed Questionnaires

Take care of them! This is the point in a survey where the information is most vulnerable. Except for telephone surveys done in a single office, completed questionnaires will be transported from each interviewer to the survey office. If the questionnaires completed by an interviewer are lost, all that person's work will be wasted, and it will cost a lot of money to repeat those interviews. It could also delay the survey results.

Therefore, use the safest possible methods of getting the completed questionnaires from each interviewer to the survey office. If the postal system is unreliable, and the survey did not extend over a very large area, it's a good idea for each interviewer to bring their completed work back to the office. For surveys extending over a larger area, the interviewers can deliver the complete questionnaires to their supervisors, and the supervisors can bring the questionnaires to the office.

When there's a high risk of losing questionnaires, it's even advisable to copy the questionnaires before returning to the survey office.

Debriefings

The end of a survey is be a good opportunity to ask the interviewers or supervisors about any problems they found with the survey methods or the questionnaire. I've found it helpful to hold debriefing meetings, where 5 to 20 interviewers or supervisors bring back their completed questionnaires at the same time, then discuss the survey, and how it could have been improved.

Many survey organizers don't hold debriefings, partly because they believe the interviewers are uneducated or ill-informed, and have little to offer. But interviewers and supervisors can gain a very detailed knowledge of how respondents react to interviews, and without using this knowledge, survey methods can't be fully improved. The only situation where debriefings aren't useful is when you do the same survey over and over again. Even then, it's helpful to hold debriefings occasionally.

The findings are recorded, so that they can be referred to the next time a survey is done.

Storing Questionnaires

As questionnaires come back from each interviewer, their arrival should be recorded (e.g. on a wall chart). The questionnaires are then put away (e.g. in cardboard boxes) in order of their serial numbers. All questionnaires should have serial numbers.

With mail surveys, the completed questionnaires will arrive back in any order. Sometimes it's helpful to give each returned questionnaire a new serial number: the first questionnaire returned is number 1, the second is 2, and so on. It's also useful to have a date stamp, and to stamp on each questionnaire the date when it was received. This enables you to analyse whether there's any systematic difference between questionnaires returned early and those returned late, and to make some estimate of what types of people don't mail back their questionnaires at all.

The danger period for questionnaires runs from the time each questionnaire is completed, to the time when it has been entered on a computer file (for computer analysis), or when the analysis is completed (if analysis is manual). During this period, if the questionnaire is lost, all the effort of that interview will be wasted. So at this time, the questionnaires should be kept in a safe place, such as a locked room.

LESSON 18:
CHECKING AND EDITING SURVEYS

Topics Covered

Survey, Telephonic, Mails, Introductions, Conversion, Call logs, Design, Followups,Receiving, Fax surveys.

Objectives

Upon completion of this Lesson, you should be able to:

- Understanding Surveys
- Identifing respondents for telephonic surveys.
- Knowing how to do a refusal conversion.
- Wrting a Call logs.
- Questionnaire design.
- How to do Followups.
- Receiving completed questionnaires.
- How to do Fax surveys.

Checking and Editing

Though completed questionnaires should already have been checked by interviewers and supervisors, they need to be checked again before (or during) data entry.

What to Check

Every questionnaire needs to be thoroughly checked:

All standard items at the beginning or end of a questionnaire should be filled in. They usually include:

- the questionnaire serial number
- the place where the interview was done (often in coded form)
- the interviewer's name (or initials, or number)
- the date and time of interview.

These are not questions asked of the respondent, but information supplied by the interviewer. If the interviewer forgot to include something here, the supervisor should have noticed, and made sure it was added. But sometimes newly trained supervisors don't notice these omissions. They sooner these problems are found, the more easily they can be corrected.

- Check that every question which is supposed to have only one answer does not have more.
- Check that no question which should have been skipped has an answer entered.
- If an answer has been written in because no code applied, perhaps a new code will have to be created. This will have to be done after looking at all answers to this question, after going through all the questionnaires.

Recoding Frequent "other" Answers

It's annoying to read a survey report and find that a large proportion of the answers to a question were "other". The goal should be to make sure the "other" category is the one with the fewest answers - certainly no more than 5%. Take for example this question:

"Which languages do you understand?"
(Circle all codes that apply)
1 Hindi
2 Oriya
3 Telgu
4 English
5 Other - write in: .....

If 10% of people gave an "other" answer, the written-in responses will need to be counted. If 4% of people understood Urdu, and 3% understood Gujrati, two new codes could be created:

6 = Urdu
7 = Gujrati

For each questionnaire mentioning these languages, the circled 5 should be crossed out (unless a different "other" language was also mentioned), and 6 and/or 7 written in and circled. This should reduce the remaining "other" figure to about 3%. (It doesn't matter that the code for "other" is no longer the highest number. Code numbers have only arbitrary meaning in this type of list. See below, about nominal variables.)

Unless at least 2% of respondents give a particular "other" answer, it's usually not worthwhile to create a separate code. Sometimes a number of "other" answers can be grouped, e.g.

8 = Bengali languages

But when such a code has been made, there is no way to recode the question except by going back to all the questionnaires with that code. The principle should be not to combine any answers which you might later want to look at separately.

Coding Open-ended Questions

With some open-ended questions, you expect to find many answers recurring. For example: "What is your occupation?" There will be some occupations which are very common, some less common, and there will probably be a lot of occupations which only one respondent in the sample mentions. With other open-ended questions (such as "What do you like most about listening to FM99?") you may find that no two respondents give the same answer.

For both types of question, the standard coding method is the same: you take a sub-sample of answers to that question - often the first 100 answers to come in. (That may be a lot more than 100 questionnaires, if not everybody is asked the question.)

Each different answer is written on a slip of paper, and these answers are then sorted into groups with similar meanings. Usually, there are 10 to 20 groups. If fewer than 2 people in 100 give a particular answer, it's not worthwhile having a separate code for that answer - unless it has a very specific and different meaning from all the others.

Having defined these 10 to 20 groups, a code number is then assigned to each. Following the example of what people like about FM99, these codes might be assigned.

01 = like everything about FM99
02 = like nothing about FM99
03 = the announcers in general
04 = the programs in general
05 = the music
06 = news bulletins
07 = talkback
08 = breakfast program
09 = Eugene Shurple
10 = other

A practical problem with such a coding scheme is that, the more codes are defined, the more likely some are to be very similar, and the coders may not be consistent in assigning codes to answers.

When consistency is very important, any codes which are not absolutely clear should be allocated by several coders working together, or by a single supervisor. As new comments are found, which are not covered by the original codes, new codes will need to be added.

There are many ways in which an answer can be given a code - what is most useful depends on any action you might take as a result of the survey. If there are particular types of answer you are looking for, you could create codes for these. For example, if a station broadcasts programs in a particular language, that language should be listed as a code. Even if no respondent understands that language, this in itself is useful information.

For open-ended questions with predefined answers (such as occupations) there may be no need to build a coding frame by looking at the answers.

That's one way to code open-ended questions. It works well for questions with a limited number of answers, but for questions on attitudes, opinions, and so on, counting the coded categories lose much of the detail in the answers. Another approach is to use the whole wording of the answers - e.g. by entering the verbatim answers on a computer file. The coding can then be very simple, and summarize the exact wording. I've used coding schemes such as...

0 = made no comment
1 = made a comment

or...

1 = positive or favourable comment
2 = negative or unfavourable comment
3 = neutral comment, or mixed positive and negative.

These very broad coding schemes are much quicker to apply, and less dependent on a coder's opinion. But the broad codes are not very useful, unless you also report the exact wording of comments.

Data Entry

When a questionnaire has been checked and edited, and codes have been written in for the open-ended questions, the questionnaires is ready to be entered into a computer.

Choosing Data Entry Software

Data entry can be done on a wide variety of computer programs - so how do you choose one? I suggest two main principles:

1. Use software that speeds up data entry and minimizes errors.
2. Have a thorough knowledge of the software you are using.

Several types of software can be used: spreadsheets, databases, and statistical programs.

Using Spreadsheets for Data Entry

Many beginners enter survey results into a spreadsheet program, such as Excel or Lotus 123. This can be done using one row for each respondent, and one column for each field. However, I don't recommend using a spreadsheet: it's far too easy to make a mistake, it's slow, and there's no built-in checking for valid values. Though it is possible to build in checking, only expert users of spreadsheets would know how to do this.

Using Database Software for Data Entry

Databases are more difficult to set up than spreadsheets, but they guard your results better: files are saved automatically, and exact values can be checked. Some common database programs are Filemaker Pro, Access, and Foxpro; there are also many others.

However, these programs are designed mainly for accounting, and don't handle survey data easily. The most basic types of survey analysis, such as frequency counts, usually can't be done by database programs - or not without considerable difficulty, unless you're an expert user of the program.

Using Statistical Software for Data Entry

Professional survey organizations mostly use statistical package programs. These are called "package" programs because they do many things, and one of those things is data entry.

The best known statistical program is SPSS (Statistical Package for the Social Science). This is widely used in universities and research companies around the world. It's not particularly easy to use (specially if you aren't trained in statistics), and it's not available in many languages, and it's very expensive - from about 1,000 to 10,000 US dollars, depending on which parts of it you buy. However there are many people who know how to use it, and if you don't do your own data analysis, perhaps you can find somebody in a nearby university who will analyse the survey for you, using SPSS.

The basic module of SPSS includes spreadsheet-like data entry, but without much checking built in. There's also a module specifically designed for data entry, but it costs a lot more, and is said to be difficult to set up properly (I haven't used it).

Differences between Research, Computer, and Statistical Terms

The varying words given to the same concepts often confuse novice researchers. Here are some simple explanations.

Questions, Fields, and Variables

A field is a space to be filled - like a column in a table. For example, the first field in most survey data files is the questionnaire ID number. (Field, in the computer sense, has absolutely nothing to do with fieldwork.) Each field contains one variable: you can't have two variables in one field, or vice versa.

A question with one possible answer also occupies a field, and corresponds to a variable. But a question with multiple answers (e.g. “which languages do you understand?”) will have a number of fields and variables. If a question has up to 6 possible answers, it will have 6 variables in 6 fields - though for respondents who have given less than 6 answers, some of these variables and fields will be blank

When you describe a questionnaire, you refer to questions. When you’re doing data entry, or planning computer files, “field” is the term to use. But when you’re analysing the data, using a statistical program, a field becomes a variable.

Answers, Codes, and Values

An answer belongs to a question on a questionnaire, a code occupies a field in a computer file, and a value belongs to a variable. All three are much the same thing.

Questionnaires, Respondents, Interviews, Records, and Cases

Again, these are really the same thing, but the name changes with the context. An interviewer will speak of an interview producing a questionnaire, a computer programmer will call the information from one questionnaire a record (when it’s on a computer file), and a statistician will call it a case.

Of course, there are also respondents and interviews: usually there’s one respondent per questionnaire, and one questionnaire per interview. Don’t make the common mistake of calling a questionnaire or interview a “survey”: the survey is the whole project.

When shown on a computer screen, one record will usually correspond to one line - though this will often be too wide to see on the screen all at once.

LESSON 19:
CASE STUDY

Topics Covered

Selecting Cases, Determine, Gathering, Analysis, Preparing, Collecting, Evaluating, Analyze, Method

Objectives

Upon completion of this Lesson, you should be able to:

- Select the Cases and Determine Data Gathering and Analysis Techniques
- Prepare to Collect the Data
- Collect Data in the Field
- Evaluate and Analyze the Data
- Prepare the report
- Applying the Case Study Method to an Electronic Community Network

The Case Study as a Research Method

Introduction

Case study research excels at bringing us to an understanding of a complex issue or object and can extend experience or add strength to what is already known through previous research. Case studies emphasize detailed contextual analysis of a limited number of events or conditions and their relationships. Researchers have used the case study research method for many years across a variety of disciplines. Social scientists, in particular, have made wide use of this qualitative research method to examine contemporary real-life situations and provide the basis for the application of ideas and extension of methods. Researcher Robert K. Yin defines the case study research method as an empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used (Yin, 1984, p. 23).

Critics of the case study method believe that the study of a small number of cases can offer no grounds for establishing reliability or generality of findings. Others feel that the intense exposure to study of the case biases the findings. Some dismiss case study research as useful only as an exploratory tool. Yet researchers continue to use the case study research method with success in carefully planned and crafted studies of real-life situations, issues, and problems. Reports on case studies from many disciplines are widely available in the literature.

This paper explains how to use the case study method and then applies the method to an example case study project designed to examine how one set of users, non-profit organizations, make use of an electronic community network. The study examines the issue of whether or not the electronic community network is beneficial in some way to non-profit organizations and what those benefits might be.

Many well-known case study researchers such as H. Simons, and R. K. Yin have written about case study research and suggested techniques for organizing and conducting the research successfully. This introduction to case study research draws upon their work and proposes six steps that should be used:

- Determine and define the research questions
- Select the cases and determine data gathering and analysis techniques
- Prepare to collect the data
- Collect data in the field
- Evaluate and analyze the data
- Prepare the report

Step 1. Determine and Define the Research Questions

The first step in case study research is to establish a firm research focus to which the researcher can refer over the course of study of a complex phenomenon or object. The researcher establishes the focus of the study by forming questions about the situation or problem to be studied and determining a purpose for the study. The research object in a case study is often a program, an entity, a person, or a group of people. Each object is likely to be intricately connected to political, social, historical, and personal issues, providing wide ranging possibilities for questions and adding complexity to the case study. The researcher investigates the object of the case study in depth using a variety of data gathering methods to produce evidence that leads to understanding of the case and answers the research questions.

Case study research generally answers one or more questions which begin with “how” or “why.” The questions are targeted to a limited number of events or conditions and their interrelationships. To assist in targeting and formulating the questions, researchers conduct a literature review. This review establishes what research has been previously conducted and leads to refined, insightful questions about the problem. Careful definition of the questions at the start pinpoints where to look for evidence and helps determine the methods of analysis to be used in the study. The literature review, definition of the purpose of the case study, and early determination of the potential audience for the final report guide how the study will be designed, conducted, and publicly reported.

Step 2. Select the Cases and Determine Data Gathering and Analysis Techniques

During the design phase of case study research, the researcher determines what approaches to use in selecting single or multiple real-life cases to examine in depth and which instruments and data gathering approaches to use. When using multiple cases, each case is treated as a single case. Each case’s conclusions can then be used as information contributing to the

whole study, but each case remains a single case. Exemplary case studies carefully select cases and carefully examine the choices available from among many research tools available in order to increase the validity of the study. Careful discrimination at the point of selection also helps erect boundaries around the case.

The researcher must determine whether to study cases which are unique in some way or cases which are considered typical and may also select cases to represent a variety of geographic regions, a variety of size parameters, or other parameters. A useful step in the selection process is to repeatedly refer back to the purpose of the study in order to focus attention on where to look for cases and evidence that will satisfy the purpose of the study and answer the research questions posed. Selecting multiple or single cases is a key element, but a case study can include more than one unit of embedded analysis. For example, a case study may involve study of a single industry and a firm participating in that industry. This type of case study involves two levels of analysis and increases the complexity and amount of data to be gathered and analyzed.

A key strength of the case study method involves using multiple sources and techniques in the data gathering process. The researcher determines in advance what evidence to gather and what analysis techniques to use with the data to answer the research questions. Data gathered is normally largely qualitative, but it may also be quantitative. Tools to collect data can include surveys, interviews, documentation review, observation, and even the collection of physical artifacts.

The researcher must use the designated data gathering tools systematically and properly in collecting the evidence. Throughout the design phase, researchers must ensure that the study is well constructed to ensure construct validity, internal validity, external validity, and reliability. Construct validity requires the researcher to use the correct measures for the concepts being studied. Internal validity (especially important with explanatory or causal studies) demonstrates that certain conditions lead to other conditions and requires the use of multiple pieces of evidence from multiple sources to uncover convergent lines of inquiry. The researcher strives to establish a chain of evidence forward and backward. External validity reflects whether or not findings are generalizable beyond the immediate case or cases; the more variations in places, people, and procedures a case study can withstand and still yield the same findings, the more external validity. Techniques such as cross-case examination and within-case examination along with literature review helps ensure external validity. Reliability refers to the stability, accuracy, and precision of measurement. Exemplary case study design ensures that the procedures used are well documented and can be repeated with the same results over and over again.

Step 3. Prepare to Collect the Data

Because case study research generates a large amount of data from multiple sources, systematic organization of the data is important to prevent the researcher from becoming overwhelmed by the amount of data and to prevent the researcher from losing sight of the original research purpose and questions. Advance preparation assists in handling large amounts of data in a documented and systematic fashion. Researchers prepare databases to assist with categorizing, sorting, storing, and retrieving data for analysis.

Exemplary case studies prepare good training programs for investigators, establish clear protocols and procedures in advance of investigator field work, and conduct a pilot study in advance of moving into the field in order to remove obvious barriers and problems. The investigator training program covers the basic concepts of the study, terminology, processes, and methods, and teaches investigators how to properly apply the techniques being used in the study. The program also trains investigators to understand how the gathering of data using multiple techniques strengthens the study by providing opportunities for triangulation during the analysis phase of the study. The program covers protocols for case study research, including time deadlines, formats for narrative reporting and field notes, guidelines for collection of documents, and guidelines for field procedures to be used. Investigators need to be good listeners who can hear exactly the words being used by those interviewed. Qualifications for investigators also include being able to ask good questions and interpret answers. Good investigators review documents looking for facts, but also read between the lines and pursue collaborative evidence elsewhere when that seems appropriate. Investigators need to be flexible in real-life situations and not feel threatened by unexpected change, missed appointments, or lack of office space. Investigators need to understand the purpose of the study and grasp the issues and must be open to contrary findings. Investigators must also be aware that they are going into the world of real human beings who may be threatened or unsure of what the case study will bring.

After investigators are trained, the final advance preparation step is to select a pilot site and conduct a pilot test using each data gathering method so that problematic areas can be uncovered and corrected. Researchers need to anticipate key problems and events, identify key people, prepare letters of introduction, establish rules for confidentiality, and actively seek opportunities to revisit and revise the research design in order to address and add to the original set of research questions.

4. Collect Data in the Field

The researcher must collect and store multiple sources of evidence comprehensively and systematically, in formats that can be referenced and sorted so that converging lines of inquiry and patterns can be uncovered. Researchers carefully observe the object of the case study and identify causal factors associated with the observed phenomenon. Renegotiation of arrangements with the objects of the study or addition of questions to interviews may be necessary as the study progresses. Case study research is flexible, but when changes are made, they are documented systematically.

Exemplary case studies use field notes and databases to categorize and reference data so that it is readily available for subsequent reinterpretation. Field notes record feelings and intuitive hunches, pose questions, and document the work in progress. They record testimonies, stories, and illustrations which can be used in later reports. They may warn of impending bias because of the detailed exposure of the client to special attention, or give an early signal that a pattern is emerging. They

assist in determining whether or not the inquiry needs to be reformulated or redefined based on what is being observed. Field notes should be kept separate from the data being collected and stored for analysis.

Maintaining the relationship between the issue and the evidence is mandatory. The researcher may enter some data into a database and physically store other data, but the researcher documents, classifies, and cross-references all evidence so that it can be efficiently recalled for sorting and examination over the course of the study.

Step 5. Evaluate and Analyze the Data

The researcher examines raw data using many interpretations in order to find linkages between the research object and the outcomes with reference to the original research questions. Throughout the evaluation and analysis process, the researcher remains open to new opportunities and insights. The case study method, with its use of multiple data collection methods and analysis techniques, provides researchers with opportunities to triangulate data in order to strengthen the research findings and conclusions.

The tactics used in analysis force researchers to move beyond initial impressions to improve the likelihood of accurate and reliable findings. Exemplary case studies will deliberately sort the data in many different ways to expose or create new insights and will deliberately look for conflicting data to disconfirm the analysis. Researchers categorize, tabulate, and recombine data to address the initial propositions or purpose of the study, and conduct cross-checks of facts and discrepancies in accounts. Focused, short, repeat interviews may be necessary to gather additional data to verify key observations or check a fact.

Specific techniques include placing information into arrays, creating matrices of categories, creating flow charts or other displays, and tabulating frequency of events. Researchers use the quantitative data that has been collected to corroborate and support the qualitative data which is most useful for understanding the rationale or theory underlying relationships. Another technique is to use multiple investigators to gain the advantage provided when a variety of perspectives and insights examine the data and the patterns. When the multiple observations converge, confidence in the findings increases. Conflicting perceptions, on the other hand, cause the researchers to pry more deeply.

Another technique, the cross-case search for patterns, keeps investigators from reaching premature conclusions by requiring that investigators look at the data in many different ways. Cross-case analysis divides the data by type across all cases investigated. One researcher then examines the data of that type thoroughly. When a pattern from one data type is corroborated by the evidence from another, the finding is stronger. When evidence conflicts, deeper probing of the differences is necessary to identify the cause or source of conflict. In all cases, the researcher treats the evidence fairly to produce analytic conclusions answering the original "how" and "why" research questions.

Step 6. Prepare the Report

Exemplary case studies report the data in a way that transforms a complex issue into one that can be understood, allowing the reader to question and examine the study and reach an understanding independent of the researcher. The goal of the written report is to portray a complex problem in a way that conveys a vicarious experience to the reader. Case studies present data in very publicly accessible ways and may lead the reader to apply the experience in his or her own real-life situation. Researchers pay particular attention to displaying sufficient evidence to gain the reader's confidence that all avenues have been explored, clearly communicating the boundaries of the case, and giving special attention to conflicting propositions.

Techniques for composing the report can include handling each case as a separate chapter or treating the case as a chronological recounting. Some researchers report the case study as a story. During the report preparation process, researchers critically examine the document looking for ways the report is incomplete. The researcher uses representative audience groups to review and comment on the draft document. Based on the comments, the researcher rewrites and makes revisions. Some case study researchers suggest that the document review audience include a journalist and some suggest that the documents should be reviewed by the participants in the study.

Applying the Case Study Method to an Electronic Community Network

By way of example, we apply these six steps to an example study of multiple participants in an electronic community network. All participants are non-profit organizations which have chosen an electronic community network on the World Wide Web as a method of delivering information to the public. The case study method is applicable to this set of users because it can be used to examine the issue of whether or not the electronic community network is beneficial in some way to the organization and what those benefits might be.

Step 1. Determine and Define the Research Questions

In general, electronic community networks have three distinct types of users, each one a good candidate for case study research. The three groups of users include people around the world who use the electronic community network, the non-profit organizations using the electronic community network to provide information to potential users of their services, and the "community" that forms as the result of interacting with other participants on the electronic community network.

In this case, the researcher is primarily interested in determining whether or not the electronic community network is beneficial in some way to non-profit organization participants. The researcher begins with a review of the literature to determine what prior studies have determined about this issue and uses the literature to define the following questions for the study of the non-profit organizations providing information to the electronic community network:

Why do non-profit organization participants use the network?

How do non-profit organization participants determine what to place on the electronic community network?

Do the non-profit organization participants believe the community network serves a useful purpose in furthering their mission? How?

Step 2. Select the Cases and Determine Data Gathering and Analysis Techniques

Many communities have constructed electronic community networks on the World Wide Web. At the outset of the design phase, the researcher determines that only one of these networks will be studied and further sets the study boundaries to include only some of the non-profit organizations represented on that one network. The researcher contacts the Board of Directors of the community network, who are open to the idea of the case study. The researcher also gathers computer generated log data from the network and, using this data, determines that an in-depth study of representative organizations from four categories — health care, environmental, education, and religious — is feasible. The investigator applies additional selection criteria so that an urban-based and a rural-based non-profit are represented in the study in order to examine whether urban non-profits perceive more benefits from community networks than rural organizations.

The researcher considers multiple sources of data for this study and selects document examination, the gathering and study of organizational documents such as administrative reports, agendas, letters, minutes, and news clippings for each of the organizations. In this case, the investigator decides to also conduct open-ended interviews with key members of each organization using a check-list to guide interviewers during the interview process so that uniformity and consistency can be assured in the data, which could include facts, opinions, and unexpected insights. In this case study, the researcher cannot employ direct observation as a tool because some of the organizations involved have no office and meet infrequently to conduct business directly related to the electronic community network. The researcher instead decides to survey all Board members of the selected organizations using a questionnaire as a third data gathering tool. Within-case and cross-case analysis of data are selected as analysis techniques.

Step 3. Prepare to Collect the Data

The researcher prepares to collect data by first contacting each organization to be studied to gain their cooperation, explain the purpose of the study, and assemble key contact information. Since data to be collected and examined includes organizational documents, the researcher states his intent to request copies of these documents, and plans for storage, classification, and retrieval of these items, as well as the interview and survey data. The researcher develops a formal investigator training program to include seminar topics on non-profit organizations and their structures in each of the four categories selected for this study. The training program also includes practice sessions in conducting open-ended interviews and documenting sources, suggested field notes formats, and a detailed explanation of the purpose of the case study. The researcher selects a fifth case as a pilot case, and the investigators apply the data gathering tools to the pilot case to determine whether the planned timeline is feasible and whether or not the interview and survey questions are appropriate and effective. Based on the results of the pilot, the researcher makes adjustments and assigns investigators particular cases which become their area of expertise in the evaluation and analysis of the data.

Step 4. Collect Data in the Field

Investigators first arrange to visit with the Board of Directors of each non-profit organization as a group and ask for copies of the organization's mission, news clippings, brochures, and any other written material describing the organization and its purpose. The investigator reviews the purpose of the study with the entire Board, schedules individual interview times with as many Board members as can cooperate, confirms key contact data, and requests that all Board members respond to the written survey which will be mailed later.

Investigators take written notes during the interview and record field notes after the interview is completed. The interviews, although open-ended, are structured around the research questions defined at the start of the case study.

Research Question: Why do Non-profit Organization Participants Use the Network?
Interview Questions: How did the organization make the decision to place data on the World Wide Web community network? What need was the organization hoping to fulfill?

Research Question: How do Non-profit Organization Participants Determine What to Place on the Electronic Community Network?
Interview Questions: What process was used to select the information that would be used on the network? How is the information kept up to date?

Research Question: Do the Non-profit Organization Participants Believe the Community Network Serves a Useful Purpose in Furthering their Mission? How?
Interview Questions: How does the organization know if the electronic community network is beneficial to the organization? How does the electronic community network further the mission of the organization? What systematic tracking mechanisms exist to determine how many or what types of users are accessing the organization information?

The investigator's field notes record impressions and questions that might assist with the interpretation of the interview data. The investigator makes note of stories told during open-ended interviews and flags them for potential use in the final report. Data is entered into the database.

The researcher mails written surveys to all Board members with a requested return date and a stamped return envelope. Once the surveys are returned, the researcher codes and enters the data into the database so that it can be used independently as well as integrated when the case study progresses to the point of cross-case examination of data for all four cases.

Step 5. Evaluate and Analyze the Data

Within-case analysis is the first analysis technique used with each non-profit organization under study. The assigned investigator studies each organization's written documentation and survey response data as a separate case to identify unique patterns within the data for that single organization. Individual investigators prepare detailed case study write-ups for each

organization, categorizing interview questions and answers and examining the data for within-group similarities and differences.

Cross-case analysis follows. Investigators examine pairs of cases, categorizing the similarities and differences in each pair. Investigators then examine similar pairs for differences, and dissimilar pairs for similarities. As patterns begin to emerge, certain evidence may stand out as being in conflict with the patterns. In those cases, the investigator conducts follow-up focused interviews to confirm or correct the initial data in order to tie the evidence to the findings and to state relationships in answer to the research questions.

Step 6. Prepare the Report

The outline of the report includes thanking all of the participants, stating the problem, listing the research questions, describing the methods used to conduct the research and any potential flaws in the method used, explaining the data gathering and analysis techniques used, and concluding with the answers to the questions and suggestions for further research. Key features of the report include a retelling of specific stories related to the successes or disappointments experienced by the organizations that were conveyed during data collection, and answers or comments illuminating issues directly related to the research questions. The researcher develops each issue using quotations or other details from the data collected, and points out the triangulation of data where applicable. The report also includes confirming and conflicting findings from literature reviews. The report conclusion makes assertions and suggestions for further research activity, so that another researcher may apply these techniques to another electronic community network and its participants to determine whether similar findings are identifiable in other communities. Final report distribution includes all participants.

Applicability to Library and Information Science

Case study research, with its applicability across many disciplines, is an appropriate methodology to use in library studies. In Library and Information Science, case study research has been used to study reasons why library school programs close (Paris, 1988), to examine reference service practices in university library settings (Lawson, 1971), and to examine how questions are negotiated between customers and librarians (Taylor, 1967). Much of the research is focused exclusively on the librarian as the object or the customer as the object. Researchers could use the case study method to further study the role of the librarian in implementing specific models of service. For example, case study research could examine how information-seeking behavior in public libraries compares with information-seeking behavior in places other than libraries, to conduct in-depth studies of non-library community based information services to compare with library based community information services, and to study community networks based in libraries.

Conclusion

Case studies are complex because they generally involve multiple sources of data, may include multiple cases within a study, and produce large amounts of data for analysis. Researchers from many disciplines use the case study method to build upon theory, to produce new theory, to dispute or challenge theory, to explain a situation, to provide a basis to apply solutions to situations, to explore, or to describe an object or phenomenon. The advantages of the case study method are its applicability to real-life, contemporary, human situations and its public accessibility through written reports. Case study results relate directly to the common reader's everyday experience and facilitate an understanding of complex real-life situations.

Assignments

1. What are the basic assumptions for a case study method?
2. Describe some of the limitations of case study method?

LESSON 20:
CONTENT ANALYSIS

Topics Covered

Analyse,Content,Audience, Form, Recordings.

Objectives

Upon completion of this Lesson, you should be able to:

- How to analyze media content
- How to analyze audience content
- Understand the recordings
- Understanding the text

Content analysis is a method for summarizing any form of content by counting various aspects of the content. This enables a more objective evaluation than comparing content based on the impressions of a listener. For example, an impressionistic summary of a TV program, is not content analysis. Nor is a book review: it's an evaluation.

Content analysis, though it often analyses written words, is a quantitative method. The results of content analysis are numbers and percentages. After doing a content analysis, you might make a statement such as "27% of programs on Radio Lukole in April 2003 mentioned at least one aspect of peacebuilding, compared with only 3% of the programs in 2001."

Though it may seem crude and simplistic to make such statements, the counting serves two purposes:

- To remove much of the subjectivity from summaries
- To simplify the detection of trends.

Also, the fact that programs have been counted implies that somebody has listened to every program on the station: content analysis is always thorough.

As you'll see below, content analysis can actually be a lot more subtle than the above example. There's plenty of scope for human judgement in assigning relevance to content.

1. What is Content?

The content that is analysed can be in any form to begin with, but is often converted into written words before it is analysed. The original source can be printed publications, broadcast programs, other recordings, the internet, or live situations. All this content is something that people have created. You can't do content analysis of (say) the weather - but if somebody writes a report predicting the weather, you can do a content analysis of that.

All this is content...

Print media	Newspaper items, magazine articles, books, catalogues
Other writings	Web pages, advertisements, billboards, posters, graffiti
Broadcast media	Radio programs, news items, TV programs
Other recordings	Photos, drawings, videos, films, music
Live situations	Speeches, interviews, plays, concerts
Observations	Gestures, rooms, products in shops

Media Content and Audience Content

That's one way of looking at content. Another way is to divide content into two types: media content and audience content. Just about everything in the above list is media content. But when you get feedback from audience members, that's audience content. Audience content can be either private or public. Private audience content includes:

- open-ended questions in surveys
- interview transcripts
- group discussions.

Public audience content comes from communication between all the audience members, such as:

- letters to the editor
- postings to an online discussion forum
- listeners' responses in talkback radio.

This chapter will focus mainly on public audience content and on media content.

Why do Content Analysis?

If you're also doing audience research, the main reason for also doing content analysis is to be able to make links between causes (e.g. program content) and effect (e.g. audience size). If you do an audience survey, but you don't systematically relate the survey findings to your program output, you won't know why your audience might have increased or decreased. You might guess, when the survey results first appear, but a thorough content analysis is much better than a guess.

For a media organization, the main purpose of content analysis is to evaluate and improve its programming. All media organizations are trying to achieve some purpose. For commercial media, the purpose is simple: to make money, and survive. For public and community-owned media, there are usually several purposes, sometimes conflicting - but each individual program tends to have one main purpose.

As a simple commercial example, the purpose of an advertisement is to promote the use of the product it is advertising: first by increasing awareness, then by increasing sales. The purpose

of a documentary on AIDS in southern Africa might be to increase awareness of ways of preventing AIDS, and in the end to reduce the level of AIDS. Often, as this example has shown, there is not a single purpose, but a chain of them, with each step leading to the next.

Using audience research to evaluate the effects (or outcome) of a media project is the second half of the process. The first half is to measure the causes (or inputs) - and that is done by content analysis. For example, in the 1970s a lot of research was done on the effects of broadcasting violence on TV. If people saw crimes committed on TV, did that make them more likely to commit crimes? In this case, the effects were crime rates, often measured from police statistics. The problem was to link the effects to the possible causes. The question was not simply "does seeing crime on TV make people commit crimes?" but "What types of crime on TV (if any) make what types of people (if any) commit crimes, in what situations?" UNESCO in the 1970s produced a report summarizing about 3,000 separate studies of this issue - and most of those studies used some form of content analysis.

When you study causes and effects, as in the above example, you can see how content analysis differs from audience research:

- content analysis uncovers causes
- audience research uncovers effects.

The entire process - linking causes to effects, is known as evaluation.

The Process of Content Analysis

Content analysis has six main stages, each described by one section of this chapter:

- Selecting content for analysis
- Units of content
- Preparing content for coding
- Coding the content
- Counting and weighting
- Drawing conclusions .

2. Selecting Content for Analysis

Content is huge: the world contains a near-infinite amount of content. It's rare that an area of interest has so little content that you can analyse it all. Even when you do analyse the whole of something (e.g. all the pictures in one issue of a magazine) you will usually want to generalize those findings to a broader context (such as all the issues of that magazine). In other words, you are hoping that the issue you selected is a representative sample. Like audience research, content analysis involves sampling. But with content analysis, you're sampling content, not people. The body of information you draw the sample from is often called a *corpus* – Latin for body.

Deciding Sample Size

Unless you want to look at very fine distinctions, you don't need a huge sample. The same principles apply for content analysis as for surveys: most of the time, a sample between 100 and 2000 items is enough - as long as it is fully representative. For radio and TV, the easiest way to sample is by time. How would you sample programs during a month? With 30 days, you might decide on a sample of 120. Programs vary greatly in length, so use quarter-hours instead. That's 4 quarter-hours each day for a month. Obviously you need to vary the time periods to make sure that all times of day are covered. An easy way to do this, assuming you're on air from 6 am to midnight, is to make a sampling plan like this:

Day	Quarter-hours beginning			
1	0600	1030	1500	1930
2	0615	1045	1515	1945
3	0630	1100	1530	2000

and so on. After 18 days you'll have covered all quarter-hours. After 30 days you'll have covered most of them twice. If that might introduce some bias, you could keep sampling for another 6 days, to finish two cycles. Alternatively, you could use an 18-minute period instead of 15, and still finish in 30 days.

With print media, the same principles apply, but it doesn't make sense to base the sample on time of day. Instead, use page and column numbers. Actually, it's a lot easier with print media, because you don't need to organize somebody (or program a computer) to record the on-air program at regular intervals.

The Need for a Focus

When you set out to do content analysis, the first thing to acknowledge is that it's impossible to be comprehensive. No matter how hard you try, you can't analyse content in all possible ways. I'll demonstrate, with an example. Let's say that you manage a radio station. It's on air for 18 hours a day, and no one person seems to know exactly what is broadcast on each program. So you decide that during April all programs will be taped. Then you will listen to the tapes and do a content analysis.

First problem: 18 hours a day, for 30 days, is 540 hours. If you work a 40-hour week, it will take almost 14 weeks to play the tapes back. But that's only listening - without pausing for content analysis! So instead, you get the tapes transcribed. Most people speak about 8,000 words per hour. Thus your transcript has up to 4 million words – about 40 books.

Now the content analysis can begin! You make a detailed analysis: hundreds of pages of tables and summaries. When you've finished (a year later?) somebody asks you a simple question, such as "What percentage of the time are women's voices heard on this station?"

If you haven't anticipated that question, you'll have to go back to the transcript and laboriously calculate the answer. You find that the sex of the speaker hasn't always been recorded. You make an estimate (only a few days' work, if you're lucky) then you're asked a follow-up question, such as "How much of that time is speech, and how much is singing?"

Oops! The transcriber didn't bother to include the lyrics of the songs broadcast. Now you'll have to go back and listen to all those tapes again!

This example shows the importance of knowing what you're looking for when you do content analysis. Forget about trying

to cover everything, because (a) there's too much content around, and (b) it can be analysed in an infinite number of ways. Without having a clear focus, you can waste a lot of time analysing unimportant aspects of content. The focus needs to be clearly defined before you begin work.

3. Units of Content

To be able to count content, your corpus needs to be divided into a number of units, roughly similar in size. There's no limit to the number of units in a corpus, but in general the larger the unit, the fewer units you need. If the units you are counting vary greatly in length, and if you are looking for the presence of some theme, a long unit will have a greater chance of including that theme than will a short unit. If the longest units are many times the size of the shortest, you may need to change the unit - perhaps "per thousand words" instead of "per web page." If the interviews vary greatly in length, a time-based unit may be more appropriate than "per interview."

Units of Media Content

Depending on the size of your basic unit, you'll need to take a different approach to coding. The main options are (from shortest to longest):

- A word or phrase. If you are studying the use of language, words are an appropriate unit (perhaps can also group synonyms together, and include phrases). Though a corpus may have thousands of words, software can count them automatically.
- A paragraph, statement, or conversational turn: up to a few hundred words.
- An article. This might be anything from a short newspaper item to a magazine article or web page: usually between a few hundred and a few thousand words.
- A large document. This can be a book, an episode of a TV program, or a transcript of a long radio talk.

The longer the unit, the more difficult and subjective is the work of coding it as a whole. Consider breaking a document into smaller units, and coding each small unit separately. However, if it's necessary to be able to link different parts of the document together, this won't make sense.

Units of Audience Content

When you are analysing audience content (not media content) the unit will normally be based on the data collection format and/or the software used to store the responses. The types of audience content most commonly produced from research data are

- Open-ended responses to a question in a survey (usually all on one large file).
- Statements produced by consensus groups (often on one small file).
- Comments from in-depth interviews or group discussions. (Usually a large text file from each interview or group.)

In any of these cases, the unit can be either a person or a comment. Survey analysis is always based on individuals, but content analysis is usually based on comments. Most of the time this difference doesn't affect the findings, but if some people make far more comments than others, and these two groups give different kinds of comments, it will be best to use individuals as the unit.

LESSON 21:
CONTENT ANALYSIS - ANALYSIS AND SIZE

Topics Covered

Analyse,Content,Audience, Form, Recordings.

Objectives

Upon completion of this Lesson, you should be able to:

- How to analyze media content
- How to analyze audience content
- Understand the recordings
- Understanding the text

Large Units are Harder to Analyse

Usually the corpus is a set of the basic units: for example, a set of 13 episodes in a TV series, an 85-message discussion on an email listserv over several months, 500 respondents' answers to a survey question - and so on. What varies is (a) the number of units in the corpus, and (b) the size of the units.

Differences in these figures will require different approaches to content analysis. If you are studying the use of language, focusing on the usage of new words, you will need to use a large corpus - a million words or so - but the size of the unit you are studying is tiny: just a single word. The word frequencies can easily be compared using software such as Wordsmith.

At the other extreme, a literary scholar might be studying the influence of one writer on another. The unit might be a whole play, but the number of units might be quite small - perhaps the 38 plays of Shakespeare compared with the 7 plays of Marlowe. If the unit is a whole play, and the focus is the literary style, a lot of human judgement will be needed. Though the total size of the corpus could be much the same as with the previous example, far more work is needed when the content unit is large - because detailed judgements will have to be made to summarize each play.

Dealing with Several Units at Once

Often, some units overlap other units. For example, if you ask viewers of a TV program what they like most about it, some will give one response, and others may give a dozen. Is your unit the person or the response? (Our experience: it's best to keep track of both types of unit, because you won't know till later whether using one type of unit will produce a different pattern of responses.)

Preparing Content for Coding

Before content analysis can begin, it needs to be preserved in a form that can be analysed. For print media, the internet, and mail surveys (which are already in written form) no transcription is needed. However, radio and TV programs, as well as recorded interviews and group discussions, usually need to be transcribed before the content analysis can begin.

Full transcription – that is, conversion into written words, normally into a computer file – is slow and expensive. Though it's sometimes necessary, full transcription is often avoidable, without affecting the quality of the analysis. A substitute for transcription is what I call content interviewing (explained below).

When content analysis is focusing on visual aspects of a TV program, an alternative to transcription is to take photos of the TV screen during the program, or to take a sample of frames from a video recording. For example, if you take a frame every 30 seconds from a 25-minute TV program, you will have 50 screenshots. These could be used for a content analysis of what is visible on the screen. For a discussion program this would not be useful, because most photos would be almost identical, but for programs with strong visual aspects – e.g. most dramas – a set of photos can be a good substitute for a written transcript. However this depends on the purpose of the content analysis.

It's not possible to accurately analyse live radio and TV programs, because there's no time to re-check anything. While you're taking notes, you're likely to miss something important. Therefore radio and TV programs need to be recorded before they can be content-analysed.

Transcribing Recorded Speech

Until you have actually tried to transcribe an interview by writing out the spoken words, you'd probably think there was nothing subjective about it. But when you actually start transcribing, you soon realize that there are many styles, and many choices within each style. What people say is often not what they intend - they leave out words, use the wrong word, stutter, pause, or correct themselves mid-sentence. At times the voices are inaudible. Do you then guess, or leave a blank? Should you add "stage directions" - that the speaker shouted or whispered, or somebody else was laughing in the background?

Ask three or four people (without giving them detailed instructions) to transcribe the same tape of speech, and you'll see surprising differences. Even when transcribing a TV or radio program, with a professional announcer reading from a script, the tone of voice can change the intended meaning.

The main principle that emerges from this is that you need to write clear instructions for transcription, and ensure that all transcribers (if there is more than one) follow those instructions. It's useful to have all transcribers begin by transcribing the same text for about 30 minutes. They then stop and compare the transcriptions. If there are obvious differences, they then repeat the process, and again compare the transcriptions. After a few hours, they are coordinated.

It generally takes a skilled typist, using a transcription recorder with a foot-pedal control, about a day's work to transcribe an hour or two of speech. If a lot of people are speaking at once on the tape, and the transcriber is using an ordinary cassette player, and the microphone used was of low quality, the

transcription can easily take 10 times as long as the original speech.

Another possibility is to use speech-recognition software, but unless the speaker is exceptionally clear (e.g. a radio announcer) a lot of manual correction is usually needed, and not much time is saved.

Partial Transcription

Transcribing speech is very slow, and therefore expensive. An alternative that we (at Audience Dialogue) often use is to make a summary, instead of a full transcription. We play back the recording and write what is being discussed during each minute or so. The summary transcript might look like this:

0' 0"		Moderator introduces herself
1' 25"		Each participant asked to introduce self
1' 50"		James (M, age about 25)
2' 32"		Mary (F, 30?, in wheelchair)
4' 06"		Ayesha (F, 40ish)
4' 55"		Markus (M, about 50) - wouldn't give details
5' 11"	*	Grace (F, 38)
6' 18"		Lee (M, 25-30, Java programmer)
7' 43"		Everybody asked to add an agenda item
7' 58"	**	James - reasons for choosing this ISP

This takes little more time than the original recording took: about an hour and a half for a one-hour discussion. The transcriber uses asterisks: * means "this might be relevant" and ** means "very relevant." These marked sections can be listened to again later, and transcribed fully.

If you are testing some particular hypothesis, much of the content will be irrelevant, so it is a waste of time to transcribe everything. Another advantage of making a summary like that above is that it clearly shows the topics that participants spent a lot of time discussing.

An important note: if you record the times as above, using a tape recorder, make sure the tape is rewound every time you begin listening to it and the counter is reset to zero, otherwise the counter positions won't be found.

What Form does the Content Take?

Content is often transformed into written form before content analysis begins. For example, if you are doing a content analysis of a photo exhibition, the analysis cannot be of the photos themselves. However it might be about the topics of the photos (from a written catalogue), or it might be about visitors' reactions to the photos. Perhaps visitors' comments were recorded on tape, then transcribed. For most purposes, this transcription could be the corpus for the content analysis, but analysis with an acoustic focus might also want to consider how loud the visitors were speaking, at what pitch, and so on.

Conversion into Computer-readable Form

If your source is print media, and you want a text file of the content (so that you can analyse it using software) a quick solution is to scan the text. Unless the text is small and fuzzy (e.g. on cheap newsprint) only a few corrections are usually needed per page.

If the content you are analysing is on a web page, email, or word processing document, the task is easier still. But to analyse this data with most text-analysis software, you will first need to save the content as a text file, eliminating HTML tags and other formatting that is not part of the content. First to save the web page, then open it with a word processing program , and finally save it as a text file.

Live Coding

If your purpose in the content analysis is very clear and simple, an alternative to transcription is live coding. For this, the coders play back the tape of the radio or TV program or interview, listen for perhaps a minute at a time, then stop the tape and code the minute they just heard. This works best when several coders are working together. It is too difficult for beginners at coding, but for experienced coders it avoids the bother of transcription. Sometimes, content analysis has a subtle purpose, and a transcript doesn't give the information you need. That's when live coding is most useful: for example, a study of the tone of voice that actors in a drama use when speaking to people of different ages and sexes.

Analysing Secondary Data

Sometimes the corpus for a content analysis is produced specifically for the study - or at least, the transcription is made for that purpose. That's primary data. But in other instances, the content has already been transcribed (or even coded) for another purpose. That's secondary data. Though secondary data can save you a lot of work, it may not be entirely suitable for your purpose.

This section applies to content that was produced for some other purpose, and is now being analysed. Content created for different purposes, or different audiences, is likely to have different emphases. In different circumstances, and in different roles, people are likely to give very different responses. The expectations produced by a different role, or a different situation, are known as demand characteristics.

When you find a corpus that might be reusable, you need to ask it some questions, like:

Who Produced this, For What Audience, in what Context?

It's often misleading to look only at the content itself - the content makes full sense only in its original context. The context is an unspoken part of the content, but is often more important than the text of the content.

Why was it Produced?

Content that was prepared to support a specific cause is going to be more biased than content that was prepared for general information.

It's safe to assume that all content is biased in some way. For example, content that is produced by or for a trade union is likely to be very different in some ways) from content produced by an employer group. But (in other ways) the two sets of content will share many similarities - because they are likely to discuss the same kinds of issues. Content produced by an advertiser or consumer group, ostensibly on that same topic, is likely to have a very different emphasis. That emphasis is very much part of the content - even if this is not stated explicitly.

How Old is this Corpus?

Is it still valid for your current purpose?

5. Coding Content

Coding in content analysis is the same as coding answers in a survey: summarizing responses into groups, reducing the number of different responses to make comparisons easier. Thus you need to be able to sort concepts into groups, so that in each group the concepts are both

- as similar as possible to each other, and
- as different as possible from concepts in each other group.

Does that seem puzzling? Read on: the examples below will make it clearer.

Another issue is the stage at which the coding is done. In market research organizations, open-ended questions are usually coded before the data entry stage. The computer file of results has only the coded data, not the original verbatim answer. This makes life easier for the survey analysts - for example, to have respondents' occupations classified in standard groups, rather than many slightly varying answers. However, it also means that some subtle data is lost, unless the analyst has some reason to read the original questionnaires. For occupation data, the difference between, say "clerical assistant" and "office assistant" may be trivial (unless that is the subject of the survey). But for questions beginning with "why," coding usually over-simplifies the reality. In such cases it's better to copy the verbatim answers into a computer file, and group them later.

The same applies with content analysis. Coding is necessary to reduce the data to a manageable mass, but any piece of text can be coded in many different ways. It's therefore important to be able to check the coding easily, by seeing the text and codes on the same sheet of paper, or the same computer screen.

Single Coding and Multi-coding

It's usual in survey analysis to give only one code to each open-ended answer. For example, if a respondent's occupation is "office assistant" and the coding frame was this ...

Professionals and managers = 1
Other white collar = 2
Skilled blue-collar = 3
Unskilled blue-collar = 4

... an office assistant would be coded as group 2. But multiple coding would also be possible. Occupations would be divided in several different "questions," such as

Question 1: Skill Level

Professional or skilled = 1
Unskilled = 2

Question 2: Work Environment

Office / white collar = 1
Manual / blue collar = 2

An office assistant could be classified as 2 on skill level and 1 on work environment.

If you are dealing with transcripts of in-depth interviews or group discussions, the software normally used for this purpose encourages multiple coding. The software used for survey analysis doesn't actually discourage multiple coding, but most people don't think of using it. My suggestion is to use multiple coding whenever possible - unless you are very, very certain about what you are trying to find in a content analysis (most likely because you've done the same study every month for the least year). As you'll see in the example below, multiple coding lets you view the content in more depth, and can also be less work than single coding.

Coding Frames

A coding frame is just a set of groups into which comments (or answers to a question) can be divided – e.g. the occupation categories shown above. In principle, this is easy. Simply think of all possible categories for a certain topic. In practice, of course, this can be very difficult, except when the topic is limited in its scope - as with a list of occupation types. As that's not common in content analysis, the usual way of building a coding frame is to take a subset of the data, and to generate the coding frame from that.

An easy way to do this is to create a word processing file, and type in (or copy from another file) about 100 verbatim comments from the content being analysed. If you leave a blank line above and below each comment, and format the file in several columns, you can then print out the comments, cut up the printout into lots of small pieces of paper, and rearrange the pieces on a table so that the most similar ones are together. This sounds primitive, but it's much faster than trying to do the same thing using only a computer.

When similar codes are grouped together, they should be given a label. You can create either conceptual labels (based a theory you are testing), or in vivo labels (based on vivid terms in respondents' own words).

How Large Should a Coding Frame be?

A coding frame for content analysis normally has between about 10 and 100 categories. With fewer than 10 categories, you risk grouping dissimilar answers together, simply because the coding frame doesn't allow them to be separated. But with more than 100 categories, some will seem very similar, and

there's a risk that two near-identical answers will be placed in different categories. If it's important to have a lot of categories, consider using hierarchical coding.

Hierarchical Coding

This is also known as *tree coding*, with major groups (branches) and sub-groups (twigs). Each major group is divided into a number of sub-groups, and each subgroup can then be divided further, if necessary. This method can produce unlimited coding possibilities, but sometimes it is not possible to create an unambiguous tree structure – for example, when the codes are very abstract. As an example, a few years ago I worked on a study of news and current affairs items for a broadcasting network. We created a list of 122 possible topics for news items, then divided these topics into 12 main groups:

- Crime and justice
- Education
- Environment
- Finance
- Government and politics
- Health
- International events and trends
- Leisure activities and sport
- Media and entertainment
- Science and technology
- Social issues
- Work and industry

This coding frame was used for both a survey and a content analysis. We invited the survey respondents to write in any categories that we'd forgotten to include, but our preliminary work in setting up the structure had been thorough, and only a few minor changes were needed.

Because setting up a clear tree-like structure can take a long time, don't use this method if you're in a hurry – a badly-formed tree causes problems when sub-groups are combined for the analysis.

Using an Existing Coding Frame

You don't always need to create a coding frame from scratch. If you know that somebody has done the same type of content analysis as you are doing, there are several advantages to using an existing coding frame. It not only saves all the time it takes to develop a coding frame, but also will enable you to compare your own results with those of the earlier study. Even if your study has a slightly different focus, you can begin with an existing coding frame and modify it to suit your focus. If you'd like a coding frame for news and current affairs topics, feel free to use (or adapt) my one above. Government census bureaus use standard coding frames, particularly for economic data - such as ISCO: the International Standard Classification of Occupations. Other specialized coding frames can be found on the Web, which are used for coding conflict in news bulletins.

The Importance of Consistency in Coding

When you are coding verbatim responses, you're always making borderline decisions. "Should this answer be category 31 or 73?" To maintain consistency, I suggest taking these steps:

- Have a detailed list showing each code and the reasons for choosing it. When you update it, make sure that each coder gets a copy of the new version.
- Use the minimum number of people to do the coding. The consistency is greatest if one person does it all. Next best is to have two people, working in the same room.
- Keep a record of each borderline decision, and the reasons why you decided a particular category was the most appropriate.
- Have each coder re-code some of each other coder's work. A 10% sample is usually enough, but if this uncovers a lot of inconsistency, re-code some more.

If you have created a coding frame based on a small sample of the units, you usually find some exceptions after coding more of the content. Often, at that point, you realize your coding frame wasn't detailed enough to cover all the units. So what do you do now?

Usually, you add some new codes, then go back and review all the units you've coded already, to see if they include the new codes. So it helps if you have already noted the unit numbers of any units where the first set of codes didn't exactly apply. You can then go straight back to those units (if you're storing them in numerical order) and review the codes. A good time to do this review is when you've coded about a quarter of the total units, or about 200 units - whichever is less. After 200-odd units, new codes rarely need to be added. It's usually safe to code most late exceptions as "other" - apart from any important new concepts.

This works best if all the content is mixed up before you begin the coding. For example, if you are comparing news content from two TV stations, and if your initial coding frame is based only on one channel, you may have to add a lot of new categories when you start coding items from the second channel. For that reason, the initial sample you use to create the coding frame should include units of as many different types as possible. Alternatively, you could sort all the content units into random order before coding, but that would make it much harder for the coders to see patterns in the original order of the data.

LESSON 22:
CONTENT ANALYSIS- QUESTIONING THE CONTENT

Topics Covered
Analyse, Content, Audience, Form, Recordings.

Objectives
Upon completion of this Lesson, you should be able to:

- How to analyze media content
- How to analyze audience content
- Understand the recordings
- Understanding the text

Questioning the Content
When analysing media content (even in a visual form - such as a TV program) it's possible to skip the transcription, and go straight to coding. This is done by describing the visual aspects in a way that's relevant to the purpose of the analysis.

For example, if you were studying physical violence on TV drama programs, you'd focus on each violent action and record information about it. This is content interviewing: interviewing a unit of content as if it were a person, asking it "questions," and recording the "answers" you find in the content unit.

What you can't do, of course, when interviewing the content is to probe the response to enable the coding to be more accurate. An interview respondent, when asked "Why did you say that?" will answer - but media content can't do that.

When you're interviewing content, it's good practice to create a short questionnaire, and fill in a copy for each content unit. This helps avoid errors and inconsistencies in coding. The time you save in the end will compensate for the extra paper used. The questionnaires are processed with standard survey software.

The main disadvantage of content interviewing is that you can't easily check a code by looking at the content that produced it. This helps greatly in increasing the accuracy and consistency of the analysis. But when there's no transcript (as is usual when interviewing content) you can check a code only by finding the recording of that unit, and playing it back. In the olden days (20th century) there were usually a lot of cassette tapes to manage. It was important to number them, note the counter positions, make an index of tapes, and store them in order. Now, in the 21st century, computers are faster, and will store a lot more data. I suggest storing sound and video recordings for content analysis on hard disk, with each content unit as a separate file. You can then flick back and forth between the coding software and the playback software. This is a great time-saver.

Overlapping Codes
When the content you are analysing has large units of text – e.g a long interview, this can be difficult to code. A common problem is that codes overlap. The interviewee may be talking about a particular issue (given a particular code) for several minutes. In the middle of that, there may be a reference to something else, which should be given a different kind of code. The more abstract your coding categories, the more likely you are to encounter this problem. If it's important to capture and analyse these overlapping codes, there are two solutions:

High-tech:
Use software specially designed for this purpose. It's powerful, but not cheap – and it takes time to learn to use it well.

Low-tech:
Cutting up transcripts and sorting the pieces of paper. Disadvantages: if interrupted, you easily lose track of what you're doing – and never do this in a windy place!

My suggestion: unless you're really dedicated, avoid this type of content analysis. Such work is done manly by academics (because they have the time) but not by commercial researchers, because the usefulness of the results seldom justifies the expense.

Content Analysis Without Coding
Coding is another form of summarizing. If you want to summarize some media content (the usual reason for doing content analysis) one option is to summarize the content at a late stage, instead of the usual method of summarizing it at an early stage.

If your content units are very small (such as individual words) there's software that can count words or phrases. In this case, no coding is needed, and the software does the counting for you, but you still need to summarize the results. This means a lot less work near the beginning of the project, and a little more at the end. If you don't do coding there's much less work.

Unfortunately, software can't draw useful conclusions. Maybe in 10 years the software will be much cleverer, but at the moment there's no substitute for human judgement - and that takes a lot of time. Even so, if your units are not too large, and all the content is available as a computer file, you can save time by delaying the coding till a later stage than usual. The time is saved when similar content is grouped, and a lot of units can all be coded at once.

Using Judges
A common way to overcome coding problems is to appoint a small group of "judges" and average their views on subjective matters. Though it's easy to be precise about minor points (e.g. "the word Violence was spoken 29 times"), the more general your analysis, the more subjective it becomes (e.g. the concept of violence as generally understood by the audience).

Use judges when there are likely to be disagreements on the coding. This will be when any of these conditions applies:

- units are large (e.g. a whole TV program instead of one sentence)

- you are coding vague concepts, such as “sustainability” or “globalization”
- you are coding nonverbal items, such as pictures, sounds, and gestures
- your findings are likely to be published, then challenged by others.

The more strongly these conditions apply, the more judges you need. Unless you are being incredibly finicky (or the project is has very generous funding!) 3 judges is often enough, and 10 is about the most you will ever need. The more specific the coding instructions, the fewer the judges you will need. If you only have one person coding each question, he or she is then called a “coder” not a “judge” - though the work is the same.

Any items on which the judges disagree significantly should be discussed later by all judges and revised. Large differences usually result from misunderstanding or different interpretations.

Maybe you are wondering how many judges it takes before you’re doing a survey, not content analysis. 30 judges? 100?

Actually, it doesn’t work like that. Judges should be trained to be objective: they are trying to describe the content, not give their opinions. All judges should agree as closely as possible. If there’s a lot of disagreement among the judges, it usually means their instructions weren’t clear, and need to be rewritten.

With a survey, respondents are unconstrained in their opinions. You want to find out their real opinions, so it makes no sense to “train” respondents. That’s the difference between judging content and doing a survey. However if you’re planning to do a content analysis that uses both large units and imprecise definitions, maybe you should consider doing a survey instead (or also).

6. Examples

This section has examples of content analysis, using various types of coding described in section 5. The first example demonstrates content questioning. Example 2 shows how multi-coding can be done, while Example 3 covers the use of software in automatic content analysis.

Example 1: Newspaper Coverage of Asylum Seekers

I’m working on a project that involves media content analysis, without transcription. The project’s purpose is to evaluate the success of a public relations campaign designed to improve public attitudes towards asylum seekers. The evaluation is done by “questioning” stories in news media: mainly newspapers, radio, and TV. For newspaper articles, six sets of questions are asked of each story:

1. Media Details

The name of the newspaper, the date, and the day of the week. This information can later be linked to data on circulation and readership, which is available from public sources.

2. Exact Topic of the News Story

Recorded in two forms: a one-line summary - averaging about 10 words, and a code, chosen from a list of about 15 main types of topic on this issue. Codes are used to count the number of occurrences of stories on each main type of topic.

3. Apparent Source of the Story

This can include anonymous reporting (apparently by a staff reporter), a named staff writer, another named source, a spokesperson, and unknown sources. If the source is known, it is entered in the database.

4. Favourability of Story Towards Asylum Seekers

To overcome subjectivity, we ask several judges (chosen to cover a wide range of ages, sexes, occupations, and knowledge of the overall issue) to rate each story on this 6-point scale:

1 = Very favourable
2 = Slightly favourable
3 = Neutral
4 = Slightly unfavourable
5 = Very unfavourable
6 = Mixed: both favourable and unfavourable

When calculating averages, the “6” codes are considered equivalent to “3”. The range (the difference between the highest and lowest judge) is also recorded, so that each story with a large range can be reviewed.

5. How Noticeable the Story was

This is complex, because many factors need to be taken into account. However, to keep the project manageable, we consider just three factors. For newspapers, these factors are:

- The space given to the story (column-centimetres and headline size)
- Its position in the issue and the page (the top left of page 1 is the ideal)
- Whether there’s a photo (a large colour one is best).

For radio and TV, the above factors are modified to suit those media, with an emphasis on time instead of space.

Each of these three factors is given a number of points ranging from 0 (hardly noticeable at all) up to 3 (very noticeable indeed). The three scores are then added together, to produce a maximum of 9. We then add 1 more point if there’s something that makes the story more noticeable than the original score would suggest (e.g. a reference to the story elsewhere in the issue, or when this topic is part of a larger story).

6. Anything Unusual About this Story

The coders write comments when they notice something unusual about the story, specially when an extra point is added in the previous item. These comments can be referred to later when trying to make sense of the results of the content analysis.

All this information is recorded first on a one-page printed form, then entered into a spreadsheet, so that weekly tables and graphs can be produced, showing trends in coverage and differences between media outlets, specially the balance between the amount of coverage and its favourability.

Notice that this example (newspaper coverage of an issue) is a much simpler task than the first (TV violence). If it appears more complex, it’s because I’ve covered it in detail, to show exactly how quantitative content analysis can be done. It’s simpler because we know exactly what we are looking for: to relate changes in media coverage to changes in public opinion. For TV violence, on the other hand, it’s more difficult to decide

exactly what to look for, and even what "violence" is. (Angry words? Slamming a door? Casual mention of a death? And so on: many decisions to be argued about). If you're a novice at content analysis, don't begin with a topic as complex as violence.

Example 2 : Counting Words in Comments

This example is about automatic content analysis. If 390 people living in the town were interviewed, and asked their views of the town's future. The open-ended answers were typed into a computer file, and software (designed for literary content analysis, but useful in this context too) was used to identify the main themes. This was done by comparing the frequency of keywords in the comments with those words' frequency in normal English. To avoid being overwhelmed by common stopwords such as *the* and *and*, the program ignored these words.

By looking at these *KeyWords In Context* (KWIC) I found a small number of comments that summarized most respondents' opinions on these issues. Though this method is much less subtle than normal coding it's very quick - which was essential on this occasion.

7. Counting and Weighting

When all the preparation for content analysis has been done, the counting is usually the quickest part - specially if all the data is on a computer file, and software is used for the counting.

8. Coming to Conclusions

An important part of any content analysis is to study the content that is not there: what was not said. This sounds impossible, doesn't it? How can you study content that's not there? Actually, it's not hard, because there's always an implicit comparison. The content you found in the analysis can be compared with the content that you (or the audience) expected - or it can be compared with another set of content.

It's when you compare two corpora (plural of corpus) that content analysis becomes most useful. This can be done either by doing two content analyses at once (using different corpora but the same principles) or comparing your own content analysis with one that somebody else has done. If you use the same coding frame for both, it makes the comparison much more straightforward.

These comparisons can be:

- chronological (e.g. this year's content compared with last)
- geographical (your content analysis compared with a similar one in another area)
- media-based (e.g. comparing TV and newspaper news coverage)
- program content vs. audience preferences

...and so on. Making a comparison between two matching sets of data will often produce very interesting results.

There's no need to limit comparisons to two corpora: any number of content analyses can be compared, as long as they used the same principles. With two or three comparisons, results are usually very clear, and with 10 or more, a few corpora usually stand out as different - but with about 4 to 9 comparisons, comparisons can become rather messy.

These comparisons are usually made using cross-tabulation (cross-tabs) and statistical significance testing. A common problem is that unless the sample sizes were huge, there are often too few entries in each cell to make statistical sense of the data. Though it's always possible to group similar categories together - and easy, if you were using a hierarchical coding frame - the sharpness of comparison can be lost, and the results, though statistically significant, may not have a whole lot of practical meaning.

Reporting on a Content Analysis

Ten people could analyse the same set of content, and arrive at completely different conclusions. For example, the same set of TV programs analysed to find violent content could also be analysed to study the way in which conversations are presented on TV. The focus of the study controls what you notice about the content. Therefore any content analysis report should begin with a clear explanation of the focus – what was included, what was excluded, and why.

No matter how many variables you use in a content analysis, you can't guarantee that you haven't omitted an important aspect of the data. Statistical summaries are often highly unsatisfying, specially if you're not testing a simple hypothesis. If readers don't understand how you've summarized the content, they will be unlikely to accept your conclusions.

Therefore it's important to select and present some key units of content in the report. This can be done when you describe the coding frame. For each code, find and reproduce a highly typical (and real) example. This is easier when units are short (e.g. radio news items). When units are long (such as whole TV programs) you will need to summarize them, and omit aspects that are important to some people. If you used judges (who will have read through the content already) ask them to select typical examples. If the judges achieve a consensus on this, it will add credibility to your findings.

Another approach is to cite *critical cases*: examples that only just fitted one code rather than another - together with arguments on why you chose the code you did. This helps readers understand your analysis, as well as making the data more vivid.

Explain your Coding Principles

When you read a content analysis report, the process can seem forbiddingly objective - something like "37.3% of the references to Company A were highly favourable, and only 6.4% highly unfavourable." However, this seeming objectivity can actually be very subjective. For example, who decides whether a reference is "highly favourable" or just "favourable"? Different people may have different views on this - all equally valid. More difficult still, can you count a reference to Company A if it's not mentioned by name, but by some degree of association? For example, "All petrochemical factories on the Port River are serious polluters." Does that count as a reference to Company A if its factory is on that river? And what if many of the audience may not know that fact?

The point is that precise-looking percentages are created from many small assumptions. A high-quality report will list all the assumptions made, give the reasons why those assumptions

were made, and also discuss how varying some assumptions would affect the results.

Conclusion

Content analysis can produce quite trivial results, particularly when the units are small. The findings of content analysis become much more meaningful when units are large (e.g. whole TV or radio programs) and when those findings can be compared with audience research findings. Unfortunately, the larger the units, the more work the content analysis requires.

When used by itself, content analysis can seem a shallow technique. But it becomes much more useful when it's done together with audience research. You will be in a position to make statements along the lines of "the audience want this, but they're getting that." When backed by strong data, such statements are very difficult to disagree with.

Examples of Content Analysis

Here's a detailed example of audience content analysis, from a recent Audience Dialogue project. This involved reanalysing open-ended questionnaire responses and "interviewing" them to find out if they supported our theory. It was a simple example of content analysis (so it should be easy for novices to follow) but it also had some innovative aspects that experienced content analysts might find interesting.

Example 4: TV Violence

An "interview" with a violent episode in a TV program might "ask" it questions such as:

1. How long did you last, in minutes and seconds?
2. What program were you shown on?
3. On what channel, what date, and what time?
4. Was the program local or imported? Series or one-off?
5. What was the nature of the violent action?
6. How graphic or realistic was the violence?
7. What were the effects of the violence on the victim/s?
8. Who did the violent act: heroes or villains? Men or women? Young or old? People of high or low social status?
9. Who was the victim/s: heroes or villains? Men or women? (etc.)
10. To what extent did the violent action seem provoked or justified?

...and so on. All the answers to the questions are available from watching the program. Notice that some of the criteria are subjective (e.g. the last one). Instead of relying on a single person's opinion on such criteria, it's usual to have a number of "judges" and record the average rating, often on a scale out of 10.

LESSON 23:
"QUALITATIVE" AND "QUANTITATIVE"

Topics Covered

Thoughts, Difference, Accuracy, Description, Watching.

Objectives

Upon completion of this Lesson, you should be able to:

- Some Thoughts About Epistemology
- Why Do We Think There's a Difference?
- Accuracy
- Full Description, Thick Description: Watching the Margins
- "Qualitative" and "Quantitative"

The Epistemology of Qualitative Research

It is rhetorically unavoidable, discussing epistemological questions in social science, to compare "qualitative" and "ethnographic" methods with those which are "quantitative" and "survey": to compare, imaginatively, a field study conducted in a community or organization with a survey of that same community or organization undertaken with questionnaires, self-administered or put to people by interviewers who see them once, armed with a printed form to be filled out. The very theme of this conference assumed such a division.

How so? Both kinds of research try to see how society works, to describe social reality, to answer specific questions about specific instances of social reality. Some social scientists are interested in very general descriptions, in the form of laws about whole classes of phenomena. Others are more interested in understanding specific cases, how those general statements worked out in this case. But there's a lot of overlap.

The two styles of work do place differing emphasis on the understanding of specific historical or ethnographic cases as opposed to general laws of social interaction. But the two styles also imply one another. Every analysis of a case rests, explicitly or implicitly, on some general laws, and every general law supposes that the investigation of particular cases would show that law at work. Despite the differing emphases, it all ends up with the same sort of understanding, doesn't it?

That kind of ecumenicism clearly won't do, because the issue does not go away. To point to a familiar example, although educational researchers have done perfectly good research in the qualitative style for at least sixty years, they still hold periodic conferences and discussions, like this one, to discuss whether or not it's legitimate and, if it is, why it is. Surely there must be some real epistemological difference between the methods that accounts for this continuing inability to settle the question.

Some Thoughts About Epistemology

Let's first step back, and ask about epistemology as a discipline. How does it see its job? What kinds of questions does it raise? Like many other philosophical disciplines, epistemology has characteristically concerned itself with "oughts" rather than "is's," and settled its questions by reasoning from first principles rather than by empirical investigation. Empirical disciplines, in contrast, have concerned themselves with how things work rather than what they ought to be, and settled their questions empirically.

Some topics of philosophical discussion have turned into areas of empirical inquiry. Scholars once studied biology and physics by reading Aristotle. Politics, another area philosophers once controlled, was likewise an inquiry in which scholars settled questions by reasoning rather than by investigation. We can see some areas of philosophy, among them epistemology, going through this transformation now, giving up preaching about how things should be done and settling for seeing how they are in fact done.

Aesthetics, for instance, has traditionally been the study of how to tell art from non-art and, especially, how to tell great art from ordinary art. Its thrust is negative, concerned primarily with catching undeserving candidates for the honorific title of art and keeping such pretenders out. The sociology of art, the empirical descendant of aesthetics, gives up trying to decide what should and shouldn't be allowed to be called art, and instead describes what gets done under that name. Part of its enterprise is exactly to see how that honorific title -"art"- is fought over, what actions it justifies, and what users of it can get away with.

Epistemology has been a similarly negative discipline, mostly devoted to saying what you shouldn't do if you want your activity to merit the title of science, and to keeping unworthy pretenders from successfully appropriating it. The sociology of science, the empirical descendant of epistemology, gives up trying to decide what should and shouldn't count as science, and tells what people who claim to be doing science do, how the term is fought over, and what people who win the right to use it can get away with.

So: this paper will not be another sermon on how we ought to do science, and what we shouldn't be doing, and what evils will befall us if we do the forbidden things. Rather, it will talk about how ethnographers have produced credible, believable results, especially those results which have continued to command respect and belief.

Such an enterprise is, to be philosophical, quite Aristotelian, in line with the program of the *Poetics*, which undertook not to legislate how a tragedy ought to be constructed but rather to see what was true of tragedies, which successfully evoked pity and terror, producing catharsis. Epistemologists have often pretended to such Aristotelian analysis, but more typically deliver sermons.

Why Do We Think There's a Difference?

Two circumstances seem likely to produce the alleged differences between qualitative and quantitative epistemologists of social science make so much of. One is that the two sorts of methods

typically raise somewhat different questions at the level of data, on the way to generalizations about social life. Survey researchers use a variant of the experimental paradigm, looking for numerical differences between two groups of people differing in interesting ways along some dimension of activity or background. They want to find that adolescents whose parents have jobs of a higher socioeconomic status are less likely to engage in delinquency, or more likely, or whatever—a difference from which they will then infer other differences in experience or possibilities that will "explain" the delinquency. The argument consists of an "explanation" of an act based on a logic of difference between groups with different traits.

I don't mean to oversimplify what goes on in such work. The working out of the logic can be, and almost always is, much more complicated than this. Researchers may be concerned with interaction effects, and with the way some variables condition the relations between other variables, in all this striving for a complex picture of the circumstances attending someone's participation in delinquency.

Fieldworkers usually want something quite different: a description of the organization of delinquent activity, a description which makes sense of as much as possible of what they have seen as they observed delinquent youth. Who are the people involved in the act in question? What were their relations before, during, and after the event? What are their relations to the people they victimize? To the police? To the juvenile court? Fieldworkers are likewise interested in the histories of events: how did this start? Then what happened? And then? And how did all that eventually end up in a delinquent act or a delinquent career? And how did this sequence of events depend on the organization of all this other activity?

The argument rests on the interdependence of a lot of more-or-less proved statements. The point is not to prove, beyond doubt, the existence of particular relationships so much as to describe a system of relationships, to show how things hang together in a web of mutual influence or support or interdependence or what-have-you, to describe the connections between the specifics the ethnographer knows by virtue of "having been there.". Being there produces a strong belief that the varied events you have seen are all connected, which is not unreasonable since what the fieldworker sees is not variables or factors that need to be "related" but people doing things together in ways that are manifestly connected. After all, it's the same people and it's only our analysis that produces the abstract and discrete variables which then have to be put back together. So fieldwork makes you aware of the constructed character of "variables." (Which is not to say that we should never talk variable talk.)

A second difference which might account for the persistent feeling that the two methods differ epistemologically is that the situations of data gathering present fieldworkers, whether they seek it or not, with a lot of information, whether they want it or not. If you do a survey, you know in advance all the information you can acquire. There may be some surprises in the connections between the items you measure, but there will not be any surprise data, things you didn't ask about but were told anyway. A partial exception to this might be the use of open-ended questions, but even such questions are usually not asked in such a way as to encourage floods of unanticipated data suggesting new variables. In fact, the actual workings of survey organizations discourage interviewers from recording data not asked for on the forms.

In contrast, fieldworkers cannot insulate themselves from data. As long as they are "in the field" they will see and hear things which ought to be entered into their field notes. If they are conscientious, or experienced enough to know that they had better, they put it all in, even what they think may be useless, and keep on doing that until they know for sure that they will never use data on certain subjects. They thus allow themselves to become aware of things they had not anticipated which may have a bearing on their subject. They expect to continually add variables and ideas to their models. In some ways, that is the essence of the method.

Many Ethnographies

The variety of things called ethnographic aren't all alike, and in fact may be at odds with each other over epistemological details. In what follows, I will concentrate on the older traditions (e.g., participant observation, broadly construed, and unstructured interviewing) rather than the newer, trendier versions, even though the newer versions are more insistent on the epistemological differences. What I have to say may well be read by some as not the full defense of what they do they would make. So be it. I'll leave it to less middle-of-the-road types to say more. (I will however talk about "ethnographers" or "fieldworkers" somewhat indiscriminately, lumping together people who might prefer to kept separate.)

A lot of energy is wasted hashing over philosophical details, which often have little or nothing to do with what researchers actually do, so I'll concentrate less on theoretical statements and more on the way researchers work these positions out in practice. What researchers do usually reflects some accommodation to the realities of social life, which affect them as much as any other actor social scientists study, by constraining what they can do. Their activity thus cannot be accounted for or explained fully by referring to philosophical positions. In short, I'm describing practical epistemology, how what we do affects the credibility of the propositions we advance. In general, I think (not surprising anyone by so doing) that the arguments advanced by qualitative researchers have a good deal of validity, but not in the dogmatic and general way they are often proposed. So I may pause here and there for a few snotty remarks on the excesses ethnographers sometimes fall into.

A few basic questions seem to lie at the heart of the debates about these methods: Must we take account of the viewpoint of the social actor and, if we must, how do we do it? And: how do we deal with the embeddedness of all social action in the world of everyday life? And: how thick can we and should we make our descriptions?

The Actor's Point of View: Accuracy

One major point most ethnographers tout as a major epistemological advantage of what they do is that it lets them grasp the point of view of the actor. This satisfies what they regard as a crucial criterion of adequate social science. "Taking the point of

view of the other" is a wonderful example of the variety of meanings methodological slogans acquire. For some, it has a kind of religious or ethical significance: if we fail to do that we show disrespect for the people we study. Another tendency goes further, finding fault with social science which "speaks for" others, by giving summaries and interpretations of their point of view. In this view, it is not enough to honor, respect, and allow for the actors' point of view. One must also allow them to express it themselves.

For others, me among them, this is a technical point best analyzed all social scientists, implicitly or explicitly, attribute a point of view and interpretations to the people whose actions we analyze. That is, we *always* describe how they interpret the events they participate in, so the only question is not whether we should, but how accurately we do it. We can find out, not with perfect accuracy, but better than zero, what people think they are doing, what meanings they give to the objects and events and people in their lives and experience. We do that by talking to them, in formal or informal interviews, in quick exchanges while we participate in and observe their ordinary activities, and by watching and listening as they go about their business; we can even do it by giving them questionnaires which let them say what their meanings are or choose between meanings we give them as possibilities. To anticipate a later point, the nearer we get to the conditions in which they actually do attribute meanings to objects and events the more accurate our descriptions of those meanings are likely to be.

It was argued that if we don't find out from people what meanings they are actually giving to things. In that case, we will, of necessity, invent them, reasoning that the people we are writing about must have meant this or that, or they would not have done the things they did. But it is inevitably epistemologically dangerous to guess at what could be observed directly. The danger is that we will guess wrong, that what looks reasonable to us will not be what looked reasonable to them. This happens all the time, largely because we are not those people and do not live in their circumstances. We are thus likely to take the easy way and attribute to them what we think we would feel in what we understand to be their circumstances, as when students of teen-age behavior look at comparative rates of pregnancy, and the correlates thereof, and decide what the people involved "must have been" thinking in order to behave that way.

The field of drug use, which overlaps the study of adolescence, is rife with such errors of attribution. The most common meaning attributed to drug use is that it is an "escape" from some sort of reality the drug user is said to find oppressive or unbearable. Drug intoxication is conceived as an experience in which all painful and unwanted aspects of reality recede into the background so that they need not be dealt with. The drug user replaces reality with gaudy dreams of splendor and ease, unproblematic pleasures, perverse erotic thrills and fantasies. Reality, of course, is understood to be lurking in the background, ready to kick the user in the ass the second he or she comes down.

Such descriptions of drug use are, as could be and has been found out by generations of researchers who bothered to ask, pure fantasy on the part of the researchers who publish them. The fantasies do not correspond to the experiences of users or of those researchers who have made the experiments themselves. They are concocted out of a kind of willful ignorance.

Misinterpretations of people's experience and meanings are commonplace in studies of delinquency and crime, of sexual behavior, and in general in studies of behavior foreign to the experience and life style of conventional academic researchers. Much of what anthropological and ethnographic studies have brought to the understanding of the problems of adolescence and growing up is the correction of such simple errors of fact, replacing speculation with observation.

But "don't make up what you could find out" hardly requires being dignified as an epistemological or philosophical position. It is really not much different from a more conventional, even positivist, understanding of method, except in being even more rigorous, requiring the verification of speculations that researchers will not refrain from making. So the first point is that ethnography's epistemology, in its insistence on investigating the viewpoint of those studied, is indeed like that of other social scientists, just more rigorous and complete. (I find it difficult, and don't try very hard, to avoid the irony of insisting that qualitative research is typically more precise and rigorous than survey research, ordinarily thought to have the edge with respect to those criteria.)

One reason many researchers who would agree with this in principle nevertheless avoid investigating actors' viewpoints is that the people we study often do not give stable or consistent meanings to things, people, and events. They change their minds frequently. Worse yet, they are often not sure what things *do* mean; they make vague and woolly interpretations of events and people. It follows from the previous argument that we ought to respect that confusion and inability to be decisive by not giving things a more stable meaning than the people involved do. But doing so makes the researcher's work more difficult, since it is hard to describe, let alone measure, such a moving target.

Epistemologically, then, qualitative methods insist that we should not invent the viewpoint of the actor, and should only attribute to actors ideas about the world they actually hold, if we want to understand their actions, reasons, and motives.

The Everyday World: Making Room for the Unanticipated

A second point, similar to the emphasis on learning and understanding the meanings people give to their world and experiences instead of making them up, is an emphasis on the everyday world, everyday life, the *quotidien.*

The general idea is that we act in the world on the basis of assumptions we never inspect but just act on, secure in the belief that when we do others will react as we expect them to. A version of this is the assumption that things look to me as they would look to you if you were standing where I am standing. In this view, "everyday understandings" refers not so much to the understandings involved, say, in the analysis of a kinship system - that this is the way one must behave to one's mother's brother's daughter, for instance -but to the deep epistemological

beliefs that undergird all such shared ideas, the meta-analyses and ontologies we are not ordinarily aware of that make social life possible.

Much theoretical effort has been expended on this concept. I favor a simpler, less controversial, more workaday interpretation, either as an alternative or simply as a complement to these deep theoretical meanings. This is the notion of the everyday world as the world people actually act in every day, the ordinary world in which the things we are interested in understanding actually go on. As opposed to what? As opposed to the simpler, less expensive, less time-consuming world the social scientist constructs in order to gather data efficiently, in which survey questionnaires are filled out and official documents consulted as proxies for observation of the activities and events those documents refer to.

Most ethnographers think they are getting closer to the real thing than that, by virtue of observing behavior *in situ* or at least letting people tell about what happened to them in their own words. Clearly, whenever a social scientist is present, the situation is not just what it would have been without the social scientist. I suppose this applies even when no one knows that the social scientist is a social scientist doing a study. Another member of a cult who believes flying saucers from other planets are about to land is, after all, one more member the cult would not have had otherwise and, if the cult is small, that increase in numbers might affect what the observer is there to study.

But, given that the situation is never exactly what it would have been otherwise, there are degrees of interference and influence. Ethnographers pride themselves on seeing and hearing, more or less, what people would have done and said had the observers not been there.

One reason for supposing this to be true is that ethnographers observe people when all the constraints of their ordinary social situation are operative. Consider this comparatively. We typically assure people to whom we give a questionnaire or who we interview that no one will ever know what they have said to us, or which alternatives on the questionnaire they have chosen. (If we can't make that assurance, we usually worry about the validity of the results.) This insulates the people interviewed from the consequences they would suffer if others knew their opinions. The insulation helps us discover people's private thoughts, the things they keep from their fellows, which is often what we want to know.

But we should not jump from the expression of a private thought to the conclusion that that thought determines the person's actions in the situation to which it might be relevant. When we watch someone as they work in their usual work setting or go to a political meeting in their neighborhood or have dinner with their family—when we watch people do things in the places they usually do them with the people they usually do them with—we cannot insulate them from the consequences of their actions. On the contrary, they have to take the rap for what they do, just as they ordinarily do in everyday life. An example: when I was observing college undergraduates, I sometimes went to classes with them. On one occasion, an instructor announced a surprise quiz for which the student I was accompanying that day, a goofoff, was totally unprepared. Sitting nearby, I could easily see him leaning over and copying answers from someone he hoped knew more than he did. He was embarrassed by my seeing him, but the embarrassment didn't stop him copying, because the consequences of failing the test (this was at a time when flunking out of school could lead to being drafted, and maybe being killed in combat) were a lot worse than my potentially lowered opinion of him. He apologized and made excuses later, but he did it. What would he have said about cheating on a questionnaire or in an interview, out of the actual situation that had forced him to that expedient?

Our opinions or actions are not always regarded as inconsequential by people we study. Social scientists who study schools and social agencies regularly find that the personnel of those organizations think of research as some version of the institutional evaluations they are constantly subject to, and take measures to manipulate what will be discovered. Sometimes the people we find it easiest to interview are on the outs with their local society or culture, hoping to escape and looking to the ethnographer for help. But, though these exceptions to the general point always need to be evaluated carefully, ethnographers typically make this a major epistemological point: when they talk about what people do they are talking about what they saw them do under the conditions in which they usually do it, rather than making inferences from a more remote indicator such as the answer to a question given in the privacy of a conversation with a stranger. They are seeing the "real world" of everyday life, not some version of it created at their urging and for their benefit, and this version, they think, deserves to be treated as having greater truth value than the potentially less accurate versions produced by other methods, whatever the offsetting advantages of efficiency and decreased expense.

Full Description, Thick Description: Watching the Margins

Ethnographers pride themselves on providing dense, detailed descriptions of social life. Their pride often implies that the fuller the description, the better, with no limit suggested. At an extreme, ethnographers talking of reproducing the "lived experience" of others.

There is something wrong with this on the face of it. The object of any description is not to reproduce the object completely - why bother when we have the object already? - but rather to pick out its relevant aspects, details which can be abstracted from the totality of details that make it up so that we can answer some questions we have. Social scientists, for instance, usually concentrate on what can be described in words and numbers, and thus leave out all those aspects of reality that use other senses, what can be seen and heard and smelled. (How many monographs deal with the smell of what is being studied, even when that is a necessary and interesting component, and when isn't it?)

Ethnographers usually hail "advances" in method which allow the inclusion of greater amounts of detail: photographs, audio recording, video recording. These advances never move us very far toward the goal of full description; the full reality is still a long way away. Even when we set up a video camera, it sits in one place at a time, and some things cannot be seen from that

vantage point; adding more cameras does not alter the argument. Even such a small technical matter as the focal length of the camera's lens makes a big difference: a long lens provides close-up detail, but loses the context a wide-angle lens provides.

So full description is a will-of-the-wisp. But, that said, a fuller description is preferable to, epistemologically more satisfying, than a skimpy description. Why? Because, as with the argument about the actor's point of view, it lets us talk with more assurance about things than if we have to make them up - and, to repeat, few social scientists are sufficiently disciplined to refrain from inventing interpretations and details they have not, in one way or another, observed themselves. Take a simple example. We want to know if parents' occupations affect the job choices adolescents make. We can ask them to write down the parents' occupations on a line in a questionnaire; we can copy what the parents have written down somewhere, perhaps on a school record; or we can go to where the parents work and verify by our own observation that this one teaches school, that one drives a bus, the other one writes copy in an advertising agency.

Is one of these better than another? Having the children write it down in a form is better because it is cheap and efficient. Copying it from a record the parents made might be better because the parents have better knowledge of what they do and better language with which to express it than the children do. Seeing for ourselves would still be open to question - maybe they are just working there this week - but it leaves less room for slippage. We don't have to worry about the child's ignorance or the parents' desire to inflate their status. Epistemologically, I think, the observation which requires less inference and fewer assumptions is more likely to be accurate, although the accuracy so produced might not be worth bothering with.

A better goal than "thickness" - one fieldworkers usually aim for - is "breadth": trying to find out something about every topic the research touches on, even tangentially. We want to know something about the neighborhood the juveniles we study live in, and the schools they go to, and the police stations and jails they spend time in, and dozens of other things. Fieldworkers pick up a lot of incidental information on such matters in the course of their participation or lengthy interviewing but, like quantitative researchers, they often use "available data" to get some idea about them. They usually do that, however, with more than the usual skepticism.

It is time to mention, briefly, the well-known issue of "official statistics" or, put more generally, the necessity of looking into such questions as why records are kept, who keeps them, and how those facts affect what's in them. (None of this is news to historians, who would think of this simply as a matter of seeing what criticisms the sources they use have to be subjected to.) Organizations don't keep records so that social scientists can have data but, rather, for their own purposes. This is obvious in the case of adolescents, where we know that school attendance records are "managed" in order to maximize state payments; behavioral records slanted to justify actions taken toward "difficult" kids; and test scores manipulated to justify tracking and sorting. Similarly, police records are kept for police purposes, not for researchers' hypothesis testing.

Ethnographers therefore typically treat data gathered by officials and others as data about what those people did: police statistics as data about how police keep records and what they do with them, data about school testing as data about what schools and testers do rather than about student traits, and so on. That means that ethnographers are typically very irreverent and this makes trouble.

It makes trouble where other people don't share the irreverence, but take the institution seriously on its own terms. Qualitative researchers are often, though not necessarily, in a kind of antagonistic relationship to sources of official data, who don't like to be treated as objects of study but want to be believed.

There's not much more to say. Practitioners of qualitative and quantitative methods may seem to have different philosophies of science, but they really just work in different situations and ask different questions. The politics of social science can seduce us into magnifying the differences. But it needn't, and shouldn't.

Further Thoughts

After the foregoing had been discussed at the conference, some people felt that there were still unresolved questions that I ought to have dealt with. The questions were ones that are often raised and my answers to them are not really "answers," but rather responses which discuss the social settings in which such questions are asked rather more than the questioners may have anticipated.

One question had to do with how one might combine what are sometimes called the "two modalities," the qualitative and quantitative approaches to social research. There is a little literature on this question, which generally ends up suggesting a division of labor, in which qualitative research generates hypotheses and quantitative research tests them. This question is invariably raised, and this solution proposed, by quantitative researchers, who seem to find it an immense problem, and never by qualitative researchers, who often just go ahead and do it, not seeing any great problem, in that following the lead of Robert E. Park, as I suggested in the paper.

Well, why don't qualitative researchers think it's a problem? They don't think it's a problem because they focus on questions to be answered, rather than procedures to be followed.

And how do researchers actually go about combining these different kinds of data? This is not an easy matter to summarize briefly, because qualitative researchers have been doing this for a very long time, and there are many examples of it being done in many parts of the literature. It was noted in 1970 that scientists learn their trade not by following abstract procedural recipes, but rather by examining exemplars of work in their field commonly regarded as well done. The best way to see how data of these various kinds can be combined is to examine how they were combined in exemplary works. This was obviously too large a task for the conference paper.

A second question dealt with "validity," noting that my paper did not speak to that question, but instead talked about credibility. Do I really think that that's all there is to it, simply making a believable case? Isn't there something else involved,

namely, the degree to which one has measured or observed the phenomenon one claims to be dealing with, as opposed to whether two observers would reach the same result, which was one of the ways some people interpreted my analysis of credibility.

We come here to a difference that is really a matter not of logic or scientific practice, but of professional organization, community, and culture. The professional community in which quantitative work is done (and I believe this is more true in psychology than in sociology) insists on asking questions about reliability and validity, and makes acceptable answers to those questions the touchstone of good work. But there are other professional communities for whose workers those are not the major questions. Qualitative researchers, especially in sociology and anthropology, are more likely to be concerned with the kinds of questions I raised in the body of my paper: whether data are accurate, in the sense of being based on close observation of what is being talked about or only on remote indicators; whether data are precise, in the sense of being close to the thing discussed and thus being ready to take account of matters not anticipated in the original formulation of the problem; whether an analysis is full or broad, in the sense of knowing about a wide range of matters that impinge on the question under study, rather than just a relatively few variables. The paper contains a number of relevant examples of these criteria.

Ordinarily, scholarly communities do not wander into each other's territory, and so do not have to answer to each other's criteria. Operating within the paradigm accepted in their community, social scientists do what their colleagues find acceptable, knowing that they will have to answer to their community for failures to adhere to those standards. When, however, two (at least two, maybe more) scholarly communities meet, as they did in this conference, the question arises as to whose language the discussions will be conducted in, and what standards will be invoked. It is my observation over the years that quantitative researchers always want to know what answers qualitative researchers have to *their* Êquestions about validity and reliability and hypothesis testing. They do not discuss how they might answer the questions qualitative researchers raise about accuracy and precision and breadth. In other words, they want to assimilate what others do to their way of doing business and make those other ways answer their questions. They want the discussion to go on in their language and the standards of qualitative work translated into the language they already use.

That desire - can I say insistence? - presumes a status differential: A can call B to account for not answering A's questions properly, but B has no such obligation to A. But this is a statement about social organization, not about epistemology, about power in heirarchical systems, not about logic. When, however, scholarly communities operate independently, instead of being arranged in a heirarchy of power and obligation, as is presently the case with respect to differing breeds of social science, their members need not use the language of other groups; they use their own language. The relations between the groups are lateral, not vertical, to use a spatial metaphor. One community is not in a position to require that the other use its language.

That has to some extent happened in the social sciences, as the growth of social science (note that this argument has a demographic base) made it possible for sub-groups to constitute worlds of their own, with their own journals, organizations, presidents, prizes, and all the other paraphernalia of a scientific discipline.

Does that mean that I'm reducing science to matters of demographic and political weight? No, it means recognizing that this is one more version of a standard problem in relations between culturally differing groups. To make that explicit, the analogies to problems of translation between languages and cultures. Super ordinate groups in situations of cultural contact (e.g., colonial situations) usually think everything should be translated so that it makes sense in *their* language rather than being translated so that the full cultural difference in the concepts in question are retained. They are very often powerful enough, at least for a while, to require that that be done.

This problem of translation between culturally differing groups is what was called attention to in noting that when there is a substantial paradigm difference, as in the case of a paradigm shift, the languages in which scientific work is conducted cannot be translated into one another. If the groups are in fact independent, then there is a translation problem and the same dynamic - the question, you might say, of whose categories will be respected - comes into play.

So what seem like quite reasonable requests for a little clarification are the playing out of a familiar ritual, which occurs whenever quantitative workers in education, psychology, and sociology decide that they will have to pay attention to work of other kinds and then try to coopt that work by making it answer to their criteria, criteria like reliability and validity, rather than to the criteria I proposed, commonly used by qualitative workers. I would say that I wasn't *not dealing* with validity, but *was*, rather, *dealing* with something else that seems as fundamental to me as validity does to others.

This will all sound at odds with my fundamental belief, expressed in the paper, that the two styles of work actually share the same, or a very similar, epistemology. I do believe that's true. But I also think that some workers get fixated on specific procedures (not the same thing as epistemology), act as I have described with respect to those procedures, and have this same feeling that other styles of work must be justified by reference to how they well they accomplish what those procedures are supposed to accomplish.

Finally, some people asked how one could tell good from bad or better from worse in qualitative work. I've already suggested one answer in the criteria already discussed. Work that is based on careful, close-up observation of a wide variety of matters that bear on the question under investigation is better than work which relies on inference and more remote kinds of observations. That's a criterion.

So these are matters that are deeper than they seem to be, in a variety of ways, and mostly, I think, in organizational ways. I haven't, for reasons I hope to have made clear, answered these questions as the people who asked them hoped. I've explained things in my terms, and I guess they will have to do the translating.

LESSON 24:
ANATOMY OF AN ON-LINE FOCUS GROUP

Topics Covered
Online, Facilities, selecting, interpretation, responding

Objectives
Upon completion of this Lesson, you should be able to:

- Ethics in online research.
- Screeners, recruitment, and virtual facilities.
- Analyze Knowledge of Data.
- Preparation of Invites.
- How to select and moderate final respondents.
- How to Interpretation data

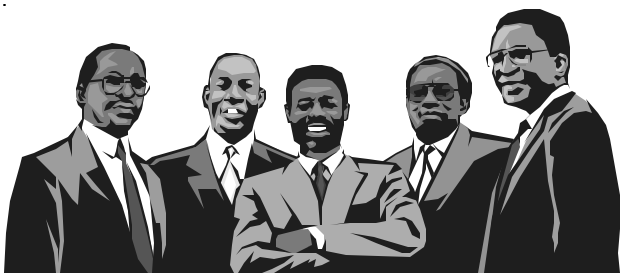
Anatomy of an On-line Focus Group
On-line focus groups, also referred to as cyber groups, e-groups, or virtual groups, are gaining popularity as the research marketplace discovers the advantages they offer. In addition to saving time and money spent traveling, they can easily bring together respondents and observers in far-flung locations.

The on-line venue has been used for qualitative research since approximately 1994, when a few research companies began experimenting with discussion groups by borrowing chat room technology. This has evolved into a dimension of qualitative research, aided by customized software that creates virtual facilities with waiting rooms, client backrooms, and focus group rooms.

Screeners, Recruitment, and Virtual Facilities
Many elements of the on-line qualitative process are familiar to qualitative researchers conducting in-person groups. Every on-line group is initiated by contracting with a virtual facility that usually offers recruitment services as well as virtual rooms. Virtual facilities typically recruit respondents electronically from established panels, compiled on-line lists, targeted Web sites, or client-provided lists. Sometimes, telephone recruiting is used to make the initial recruitment contact or to obtain e-mail addresses. (Independent recruiters specializing in on-line group recruitment are just beginning to appear and this will, undoubtedly, be another area of growth potential.)

Recruiting on-line groups requires specially crafted screeners that are similar in content and depth to those used for in-person groups. Since the screeners are administered electronically, some questions are worded differently to disguise qualifying and disqualifying answers. A professional on-line facility, in combination with a well-written screener, will thank and release all disqualified respondents without them knowing why. This, as well as putting a block on their electronic address, discourages them from re-trying to qualify by logging back in or from sharing information about the specific screener questions with friends. Depending upon the target markets, it is not unusual with high-incidence groups to have an excess of qualified respondents to choose from and the virtual facility and/or the qualitative researcher will select the best.

The time set for an on-line group should accommodate the array of respondents participating. If there are East and West Coast participants, groups can be conducted later in the evening (based on GMT) or participants in similar time zones can be grouped together.



Invitations and Preparation

Respondents who are invited to the group receive invitations with passwords and passnames, instructions, dates, and times. The invitation requests that they sign on to the site in advance of the group, using the computer they will use during the group, to guarantee that all technology is compatible. If there are any complications or questions, the respondents can contact tech support in advance to resolve them. They can also contact tech support during the group for on-line support, as can the moderator and client observers.

Discussion Guide Development and Design
The content and structure of the inquiry, as outlined in the discussion guide, resembles in-person groups. The major difference is in the actual presentation of questions that are mostly written in full sentence form, in advance. The main topic questions must be written clearly and completely otherwise respondents will have to ask for clarification, which uses up valuable time and diverts the attention of the group.

On-line groups are often shorter (typically 60 to 90 minutes) than in-person groups and the ideal number (30 to 45) of prepared questions depends on the complexity of the subject and the amount of follow-up probes required. Whenever desired, follow-up questions and probing can be interjected to either an individual respondent or the entire group. This enriches the inquiry and uncovers deeper insights. Unfortunately, sometimes research sponsors can insist on an excessive amount of prepared questions that minimize the amount of probing time. The result is a missed opportunity to uncover deeper insights.

Preparation for Groups

Fifteen to 30 minutes prior to the group, the moderator and technical assistant sign on to watch as respondents enter the virtual waiting room using their passnames and passcodes. Similar to in-person groups, some respondents arrive very early and others arrive at the last minute. As they arrive, some virtual facilities can administer a rescreener to re-profile them and to assure that the attendee is the person who originally qualified. In addition to a few demographic and product usage questions, the rescreener can include a verification question that refers to a piece of unique, personal info, such as the name of their first teacher or pet, that was subtly asked in the original screener.

Show Rates

Show rates can vary dramatically based on a number of factors, including: the origination of the respondent (on-line database, established panel, Web site intercept, etc.), confirmation procedures, respondent comfort and familiarity with the on-line venue in general, and the typical kinds of other personal/ business commitments that can inhibit attendance. For eight respondents to show, 10 or 15 may have to be recruited. However, it should be noted that the weather, traffic, and transportation can have less of a negative impact on show rates since the respondents are typically participating from a variety of locations and not encountering the same delays.

Selecting Final Respondents

Based on the rescreener information and final screener spreadsheet, the moderator and client select the respondents together, similar again to in-person groups.

Moderating

For a moderator, the excitement and pace of moderating an on-line group can be likened more to a roller coaster ride than an in-person group. Ideally, the discussion guide is downloaded directly onto the site so the moderator can, with one click, enter a question into the dialogue stream. However, another method more frequently available and workable (although requiring more concentration and actions by the moderator) is having the discussion guide document loaded in a separate window behind the virtual room to use for cutting and pasting each question.

To begin a group, the moderator introduces the purpose of the group and lays the ground rules. This includes a personal introduction, purpose, timeline, instructions for entering responses, encouragement to be candid and honest, and instructions for signing back on if they accidentally drop off. Respondents are also encouraged to "feel free to agree, disagree, or ask questions of each other that relate to the subjects being discussed" and told that this interaction will help bring the discussion to life.

On-line groups demand that a moderator possess strong and fast keyboard skills or be willing to hire an assistant who does. There are no unused moments during a group to accommodate slow typists on the moderator side. Respondents can type slower, but most are keyboard proficient and save time by cutting corners on spelling and not worrying about sentence construction. It helps to tell them right in the beginning that "typo's and sentances dont mater."

While a group is underway, there may be technical problems with respondents and clients that require telephone calls back and forth to resolve. Simultaneously, the moderator is reading and interpreting the response stream, responding to client notes, composing probes and entering questions while (potentially) dealing with all kinds of technical issues.

Also, moderating on-line groups requires someone who relates to the on-line venue and recognizes that respondents are adept at developing relationships in this medium. Many respondents participate in chat rooms and feel comfortable relating on-line. At the same time, it is the responsibility of the moderator to help make the respondents who are not as comfortable or experienced feel valuable.

The strategy of on-line moderating resembles in-person moderating. That is, the moderator follows the discussion guide to the extent that it continues obtaining the desired information. If a subject that was supposed to be covered later in the group is brought up earlier by the respondents, those questions can be inserted as the moderator sees fit. In addition, if topics not covered in the guide are introduced, the moderator can choose to interject a new line of questioning.

View for the Client Observers

If all is going well, most of the moderating elements mentioned above will be transparent to the research sponsor and observers. In fact, it may even seem slow for them as they passively sit in front of their computer watching the interaction. It is important to point out that the optimal way for the client to interact with the moderator is through one designated client liaison. Similar to in-person groups where notes are passed to the moderator, the designated liaison decides what is important to pursue and approves questions given to the moderator. These "notes" may be submitted to the moderator in private message form or entered in the backroom response stream for the moderator to see. The method of communication between the client and moderator depends mostly on the virtual facility being used and their software capabilities.

Technical Support

All virtual facilities offer some level of technical assistance. This may be a technician whose role is to help everyone sign-on and to help anyone who gets kicked off and has trouble re-entering. Other technicians perform additional functions including

hosting the waiting room and interacting with respondents while they wait.

Another option is for the moderator to hire their own project assistant who greets the respondents and chats with them in the waiting room - warming them up - while the moderator takes care of any last-minute details with the clients and facility. This assistant then supports the moderator throughout the group in whatever capacity needed, which could include co-moderating if, by remote chance, the moderator loses her/his connection. This person also has an overview of the project objectives, screening, discussion guide, and the moderator's style, areas that a virtual facility's technical support person would not be privy to.

Transcripts

Soon after the completion of the groups, transcripts are available for analysis and reporting. These transcripts, available within a few hours or the next day, may document all interactions from sign-on to sign-off, or they may be slightly edited (by the facility or moderator) to begin at the first question and end with the last question, eliminating the hellos and goodbyes. Inappropriate respondent comments can be easily removed.

Analysis

Analysis and reporting are similar to in-person groups, with the exception that transcripts are quickly available for every group. The analysis will be very inclusive and reflect the input of most respondents since most of them answer every question. In the absence of visual and verbal cues, analysis of some areas, such as appeal, will be based on an interpretation of respondent statements and the ratings they use to indicate levels of appeal.

Reporting

Reports are virtually the same as other qualitative reports covering areas such as objectives, methodology, conclusions, and detailed findings. They can be in topline, executive summary, or full report form. Typically, reports can be turned around more quickly due to the immediate availability of the transcripts.

A Qualitative Caveat

Results from on-line groups depend on the expertise and qualifications of the professional who is conducting them. The most knowledgeable and qualified professionals to conduct on-line groups are qualitative researchers who have research and marketing expertise and experience managing group interactions. "Techies" sometimes attempt to do groups because they are comfortable with the technology and mechanics and some even have experience with chat groups. However, they often lack research, analysis, moderating, and marketing expertise and the results can suffer from these deficiencies.

Criteria of Good Research

The qualities of a good research are as under:

1. Good research is systematic

It means that research is structured with specified steps to be taken in a specified sequence in accordance with the well defined set of rules. Systematic characteristic of the research does not rule out creative thinking but it certainly does reject the use of guessing and intuition in arriving at conclusions.

2. Good Research is Logical

This implies that research is guided by the rules of logical reasoning and the logical process of induction and deduction are of great value in carrying out research. Induction is the process of reasoning from a part to the whole whereas deduction is the process of reasoning from some premise to a conclusion which follows from that very premise.

3. Good Research is Empirical

It implies that research is related basically to one or more aspects of a real situation and deals with concrete data that provides a basis for external validity to research results.

4. Good Research is Replicable

This characteristic allows research results to be verified by replicating the study and thereby building a sound basis for decisions.

1.3 The Qualities of a Research Investigator

Now-a-days research has become a highly specialised matter, which calls for unique qualities of mind. The research investigator is expected to possess certain qualities if he is going to make any contribution of value.

i. Keenness of observation

Since research involves data collection, the research investigator should be a keen observer with an assured capacity to see the difference between fact and fiction.. This calls for mental alertness in the person.

ii. Making Meaningful Discrimination

A good research investigator ought to be able to distinguish the relevant and irrelevant information in relation to the purposes of his investigation and be able to reach a meaningful conclusion.

iii. Ability to Classify Research Data

In order to classify data, it is necessary to see how certain items fall together in a group, because of their resemblance. Assigning things to the groups to which they properly belong is like sorting a number of coloured threads, all mixed together.

1.4 The Research Process

The research process as explained in Table 1.1 starts with formulation of research problem, then with various method of research, research design, sample design, data collection, analysis and interpretation of data and finally ends with a research report. It explains various stages such as problem technician, development of research plan and so on.

LESSON 25:
GROUP DISCUSSIONS

Topics Covered
Knowing, principles, choosing, preparing, formation

Objectives
Upon completion of this Lesson, you should be able to:

- Know what are groups
- Principles of consensus groups
- Understand group discussions
- Choose sampling points
- Prepare a screening questionnaire
- Consensus formation in discussion

Most of this book describes formal survey methods; a technique sometimes known as quantitative research. The process of the survey method is this:

- The population is defined, and a representative sample is selected.
- A questionnaire is prepared, in which everybody is asked exactly the same questions, with exactly the same wording.
- The results of the survey come from counting the number of people who gave each answer to each question.

Qualitative research is quite different. Though it has little in common with formal surveys, it can be used to reach similar conclusions. The process of qualitative research is:

- The population is defined, in the same way as a survey.
- Respondents are selected, using a sampling method.
- Respondents are often interviewed in groups.
- Instead of a questionnaire, a list of topics is used.
- The results are not expressed in numerical form, and formal counts are seldom made.

But both types of research share the same context: typically this:

- The managers of an organization have a problem. To solve it, they feel they need data about their audience, users, or customers.
- A research study is carried out.
- The results of this study are used to solve the organization's problem, by producing audience data.

The organization's managers may not care exactly how the research is done; they simply want an answer to their questions, or a solution to their problems. From this point of view, it may not matter what form the research takes.

Qualitative research produces a wealth of information, not in the form of numbers, but in the form of words. People whose inclinations are verbal rather than mathematical (like most media workers I know) often have trouble interpreting the results of surveys, but they find the results of qualitative research easier to understand and use. However, qualitative research has been regarded as too difficult for untrained people to do successfully. The prerequisite has normally been an advanced degree in psychology.

The most common form of qualitative research is a focus group.

Focus Groups
The most common form of qualitative research is the focus group. These are widely used for assessing the viability of proposed new services or products. In each group, about 8 people meet to discuss a particular issue. The group is led by a highly trained moderator, who begins the discussion at a very general level, then gradually focuses in on the specific topic. Respondents are not told this topic in advance, only the broad area of interest.

For example, if a TV station wants to assess a new type of current affairs program, the people chosen for the group could be those interested in watching information programs on television. The discussion might begin with the types of information program participants like and dislike, and the reasons for those feelings. The discussion might then move onto current affairs programs in general, then some specific current affairs programs, then onto current affairs programs on that channel. At this point the participants might be shown a short pilot of the proposed new program, and asked to discuss it. Such a group typically lasts from 1 to 2 hours.

So the focusing begins with the general, and moves towards the particular. Focusing is also called funnelling - but a focus group is never called a funnel group.

Everything the participants say is recorded, on either audio or videotape. For the moderator, the hard work now begins. The actual moderating can be learned quickly - it's mainly a matter of ensuring that everybody has a chance to speak, that some don't dominate others, and so on. However the analysis is much more difficult and time-consuming. The moderator often watches the video or listens to the tape several times, noting participants' expressions and gestures as much as the content of their speech. Advanced training in psychology is almost necessary, as is long experience at running focus groups. With untrained moderators, interpretation of focus groups is highly subjective: two different moderators may reach quite different conclusions about the participants' reaction to whatever was being studied.

When the moderator has studied the tapes or transcripts, he or she writes a report. There is no simple method of converting what participants say and do into conclusions.

Focus groups are usually done in sets of 3 to 6 groups, each group with a different type of person. For example, the assessment of a pilot current affairs TV program might require 4 groups: perhaps men under 35, men over 35, women under 35, and women over 35.

To analyse focus group proceedings thoroughly usually takes a full day's work for each group, then another day or two to write the report. For this reason, commissioning focus groups from market research companies is expensive. Though few people take part in the groups, far more time is spent on each person than on interviewing respondents in a survey - and a much higher level of skill is needed than for normal interviewing.

Because of the high cost of professionally organized focus groups, some organizations are now running their own focus groups, and even gaining some useful insights. However, their lack of experience often leads them to misleading conclusions. It may seem to them that their customers are highly satisfied, or would watch a proposed new program in large numbers. Later, they often discover that their conclusions were wrong: that the innovation that the participants seemed to welcome is far from popular among their whole audience.

Consensus Groups

The consensus group, is sort of halfway between a focus group and a public meeting. It also includes elements of other research techniques and negotiation techniques.

Principles of Consensus Groups

In every survey, the questionnaire ensures that everybody is asked the same questions. The only variation can be in the number of people giving each answer to each question. So surveys begin with words (questionnaires), but the results are always expressed in numbers.

Consensus groups work in the opposite way: the numbers remain constant (more or less), but the wording of each statement is adjusted until the great majority of participants agree.

It's important to realize that a consensus group does not try to create a consensus among participants: that's peace-making. This is research: it simply tries to find and define any consensus that already exists. Unlike a focus group (which narrows in on a single topic) a consensus group normally covers a broad range of topics.

The technique has two main stages: recruiting participants, and holding discussions. Like focus groups, consensus groups are never done singly, because with a small number of participants, any one group may be atypical. Consensus groups are normally done in sets of 3. There can be more than 3, but every extra group adds less and less information.

Before participants are recruited, the planning process is much the same as a survey: the organizers must decide what is to be covered, among what population. When the subject and scope of the study have been decided, nine steps follow:

A. Preparation

1. Within the area to be studied, three (or more) sampling points are chosen, contrasting as much as possible.
2. At each of the sampling points, a venue is arranged. All you need is a suitable room.
3. A short screening questionnaire is prepared.
4. At each sampling point, people are interviewed using the screening questionnaire. The purpose of these interviews is to find people who are both eligible and willing to attend a consensus group.

B. Meeting

5. The group meets, either immediately, or up to several weeks later. Each meeting lasts for two to three hours. Approximately 12 participants are present, as well as 2 organizers: a moderator and a secretary.
6. The first stage of the meeting is introductory. The participants briefly introduce themselves, giving some relevant background information.
7. In the second stage of the meeting, the topics are discussed by all participants. The moderator manages the discussion, ensuring that everybody speaks freely, while the secretary takes notes.
8. In the final stage of the meeting, consensus is sought. The secretary puts up statements which most participants are expected to agree with. Statements are modified, depending on what participants say. When each statement is ready, participants vote on it. On average, about 20 statements are agreed on. This list of statements is the main outcome of the meeting.
9. When three meetings have been held, the three lists of statements are compared. Any statements shared by at least two groups are the outcome of the study.

The rest of this chapter considers the nine steps in detail.

1. Choose Sampling Points

A sampling point is the centre of a geographical area, where a small survey can be carried out. It can be either a group of homes, or a public place where passers-by are recruited for the study. For consensus group sampling to work effectively, at least three sampling points are needed. They are chosen to be as different as possible. For example, if your study is being done for a radio station, the population will probably be all people who live in that radio station's coverage area. Within this area, you should identify three contrasting localities, where the people are as different as possible from each other. For example, if the station broadcasts to a city and outlying rural areas, you might choose:

- An inner-city area
- An area near the outer edge of the city
- A rural area.

Another way in which localities often vary is in wealth. Therefore it would be useful to choose one wealthy area, one poor area, and one middle-income area. If there are ethnic, racial, or tribal divisions among your audience, it may be essential to have a separate consensus group for each ethnic group.

In some countries, women won't give their true opinions in the presence of men, so you need to have separate consensus groups for men and women.

Whatever the basis for selecting the sampled areas, the main goal is to make them as different as possible. This is known as maximum-diversity sampling. It is explained in detail in the chapter on sampling.

There is no reason why you should not have more than three sampling points. We have found that each additional sampling point adds less and less to the value of the study. However, in some situations, more than three sampling points are needed to adequately cover the variations in a population. A technique we have often used compares a station's potential listeners with its current listeners. This requires choosing two groups at each sampling point, or 6 groups in total. If both the sampling points and the type of person invited to a group are different, you cannot make clear conclusions about the causes of any differences in the results.

If you hold separate groups for men and women, you will probably need four groups: two or men and two of women. If you want to be able to compare the opinions of men and women, you need to use the same sampling points for each sex.

2. Organize a Venue

A venue for a consensus group is a space that will hold about 15 people and is free from interruptions.

In some countries, hotels and restaurants often have rooms available for hire for meetings. We have also used clubrooms, and borrowed office areas outside working hours. Another possibility is to use a private house with a good-sized room, paying the owner a small fee for the use of their space.

It is often better not to use the premises of the organization sponsoring the research, as people may be reluctant to criticize an organization when they are on its premises: for example, if your research is for a radio station, avoid using its office as a venue. But this depends on the type of people attending, and on the organization.

Here are some factors to take into account when choosing a venue:

- We usually provide something to eat and drink for the participants. We find it helps them to relax. One advantage of hotels and restaurants is that catering is included.
- A venue should be easy to find, specially for people who have never been there before. Large public buildings are usually well known to people living in the area.
- A venue should not be a place that some people would not want to visit. In some cultures, for example, women do not like to go to hotels.
- A venue should be quiet, particularly if the meeting is to be recorded on audio tape. Noisy air-conditioning can be an unexpected problem, making voices much more difficult to understand, even though participants may be hardly aware of the background noise. Noise is often a problem in hotels and restaurants.
- The venue must be close to the sampling point. We have found that some people are reluctant to travel for more than about 15 minutes to a group discussion. Sometimes you may have to change a sampling point, because no suitable venue can be found there.

3. Prepare a Screening Questionnaire

The purpose of the screening survey is to find participants for the consensus groups: people who are both eligible and willing to participate. If, for example, you are assessing the programs on a radio station, there is little point in inviting people who don't listen to that station. The key question on the screening questionnaire could be

"Do you listen to FM99 at least once a week?"

(This is better wording than asking simply "Do you listen to FM99?" If no time limit is included, people who listen only very rarely to the station would answer Yes, and would not be able to discuss the programs in detail.)

If you are interested in increasing the station's audience, you will need to speak to potential listeners to the station. There are several ways to define potential listeners on a questionnaire. When a station increases its audience, this is usually because people who did formerly listen to the station (but infrequently) began to listen more often. So most of your potential listeners are probably occasional listeners already. In a screening survey, you could ask

"How often do you listen to FM99: at least once a week, occasionally, or never?"

All people answering "occasionally" would be considered potential listeners.

If you are trying to assess the audience to something that does not yet exist (such as a planned new radio station), you will need to define the potential listeners in another way. This can be done from two starting points:

a. A demographic group, such as "rich people living near the city." If these were defined as the target audience, the purpose of the study would be to find the kind of radio program that most appealed to these people.
b. A program idea, for example "a radio station specializing in jazz, blues, and reggae." In this case, the purpose of the study would be to estimate how many people are interested, what type of people they are, and exactly what program content would most interest them. You may need to do a small survey to find the participants for consensus groups.

When you have found a respondent who is eligible to take part in a consensus group, the next step is to find out if they will attend. We normally use wording like this.

"With the answers you've given, you're eligible to take part in a group discussion, to talk about news and current affairs in more detail. We'd like to invite you to come to this discussion next Tuesday night, the 15th of October. We're holding it at…… (name of the venue), starting at 7pm, and finishing no later than 10pm. People usually find these meetings very interesting, and if you attend we'll pay you incentives to cover your expenses. Would you like to come along?"

1. Not interested
2. Interested, but can't come
3. Agreed to come -> get name and address, and say we'll send a letter

Name . . . . . .

Address . . . . . .

The essential points included in the above script are:

- Invitation to attend
- Approximate description of the subject

- Date, time, and place of meeting
- Maximum duration of meeting
- Incentives, such as payment to respondents, offer to feed them, meet interesting people, and so on.

The third type of question that can be included in a screening questionnaire is the demographic question: their sex, their age group, and perhaps their occupation and other similar data. There are two reasons for obtaining this demographic information:

- To help ensure a proper balance of sexes, age groups, etc. in the groups.
- To help find out the differences between the type of people who attend the groups and those who do not.

4. Find Participants for the Discussions

Interviewing for a screening survey is done in the way described in the chapter on interviewing. However when you do a screening survey for consensus groups, it is not essential to interview people in their homes, following a prescribed route. When you are looking for characteristics that everybody shares, sampling makes much less difference: for example, if you wanted to find out how many legs humans have, almost any sampling method would do.

Unless the group discussions are to be held immediately after the recruitment, it is best to use only one or two interviewers at each sampling point. Because you will be aiming for 12 participants in each group, not many interviews will be required — unless the people eligible to take part are only a small percentage of the population.

In order for 12 people to turn up, you will probably need more than 12 to agree. In India, even when we send a letter to confirm the details of the discussion, and then telephone each participant the day before the discussion, major per cent, of those who accept will fail to turn up. We have also found that people who say they "might" come usually don't. Therefore, we usually get acceptances from two more people than we really want: if we want 12, we obtain 14 acceptances.

Attendance Rates are Higher When

- Participants are paid well for attending.
- They are allowed to attend with a friend or relative.
- The meeting is at a convenient time of day.
- Participants are mostly over 25.
- Participants are regular users of your service, and they know the group is about that service.
- The lead time between the invitation and the group is short.
- Participants are reminded of the meeting the day before it takes place.
- Participants are sent letters confirming the arrangements.
- These letters have practical details of how to get to the venue - e.g. a map

The worst way to organize a consensus group is to extend a weak invitation to a lot of people to come. As this is very easy, it may seem tempting. If you are running a radio station, you may think "Why not advertise on air that we are doing a research study, and invite listeners to come along?"

The problem here is that you have no control over the number of people who turn up. It could be nobody, and it could be hundreds. We have found that 12 people is about the ideal number for a consensus group. With fewer than about 8 participants, there is too much danger of the responses being atypical. With more than about 15, many participants are unable to give their complete opinions.

In developing countries, usually less than 50% of people eligible to attend a group will agree to do so. Considering all the people who are not eligible, and the eligible people who do not want to come to the group, and those who say they will come but do not, sometimes it takes a lot of interviews to fill one group of 12.

For example, if one person in 10 is eligible, and a third of those attend a group, that's 30 interviews for each person who attends, or 360 interviews to fill a group. It is therefore not a good idea to make the eligibility criterion too restrictive.

Another step you can take to reduce the number of interviews is to offer an incentive to attend. If you can persuade two thirds of the eligible people to attend instead of one third, only half as many interviews will be needed. Therefore, if you pay the people for attending, this can greatly reduce the total cost. (The participants get more money, but the interviewers get less.)

We normally do the screening surveys between one week and two weeks before the discussion. If given more than two weeks' notice, people tend to forget. With less than a week's notice, many people can't attend, because they have already made plans to do other things at the time.

But it is not essential to wait that long. Another possibility is to hold consensus groups on the spot. All people who met the criteria, and had an hour to spare, were invited to a group discussion then and there. It took only ten to fifteen minutes to find enough participants. Of course, this would not work unless a large number of eligible people were nearby.

The above description of screening questionnaires involves a separate interview for each person. In the resulting groups, each participant will usually not know any of the other participants — except in small towns, where many people already know each other. In some ways this can be an advantage, because participants will not offend their friends by giving opinions they feel the friends might disagree with. But in other ways, it can be a disadvantage to hold a discussion among strangers: participants may feel unwilling to reveal their opinions to people they do not know and cannot trust.

Which of these two disadvantages is the stronger will vary from country to country. My experience is that when the participants in a group already know each other, they tend to express their feelings more freely, when the topic is one of broad interest - such as broadcasting. But if the topic is something that may embarrass people, such as sexual behaviour, participants will be more honest in the presence of people they have never met before and probably will never meet again.

Sometimes it is better to have separate groups of younger and older people. In some countries, it may be best not to mix

supporters of different political parties in the same group. This separation can be done partly by careful selection of sampling points, and partly through screening questionnaires. Remember that the purpose of restricting a group to a particular type of person is to enable the participants to speak more freely to each other.

LESSON 26:
AFFINITY GROUPS

Topics Covered
Knowing, principles, choosing, preparing, formation

Objectives
Upon completion of this Lesson, you should be able to:

- Know what are groups
- Principles of consensus groups
- Understand group discussions
- Choose sampling points
- Prepare a screening questionnaire
- Consensus formation in discussion

Affinity Groups
Another approach is to organize a discussion among a group of people who already know each other, such as members of a sporting club, a group of people who work together, or a group of students. These groups, formed by people who already know one other, are called affinity groups.

The groups need not have a special purpose: they can simply be groups of friends or neighbours. However, you should not have a group made up only of people from a single family. There is too strong a chance that they will not be typical of the population, because the entire study would then be limited to three families.

If the purpose of the group is to collect opinions, it's usually best to discourage husbands and wives from coming together: they tend to inhibit each other. Often only one of them will join the discussion. As each group is quite small, it would be better to invite two people, who would give separate opinions. But if discovering behaviour is your main interest, husbands and wives can correct each other.

When affinity groups are used for a study, each group needs to be as different as possible from each other (replacing the three sampling points). For example, don't choose three sporting clubs, or three groups of neighbours. This type of sampling is most effective when there is the largest possible contrast between the types of person in each consensus group.

One problem that restricts the use of affinity groups is that not everybody in an affinity group may be eligible. If a radio station is studying its listeners, it does not matter if a few people in an affinity group are not listeners, but if most people are non-listeners, the group will not provide useful information. Also, if people are not interested in the topic being studied, they may disrupt the discussion by talking among themselves. Therefore affinity groups are best when all (or almost all) the population are eligible to be participate.

5. Hold the Discussions
Each group needs a discussion leader, or moderator. This person (preferably not a radio or TV presenter, in whose presence people may withhold criticism) feeds the group with stimuli, or material to react to, as well as encouraging the reticent to speak up, and discouraging the talkative from dominating the proceedings. And when the topic is radio, one essential function of the moderator is to stop the participants from talking about television!

Each group should have a second person from the organizing team, to act as secretary. Though it is possible for an experienced moderator to fulfil both functions, it is valuable to have a second organizer present, so that the two can compare their conclusions after the participants have left. But if too many people from the organizing team are present, participants are likely to feel inhibited. If there are 12 participants, there should not be more than about 5 organizers present. Apart from the moderator and secretary, the other organizers should hardly speak at all. Other people who may be present include:

- A video-camera or tape-recorder operator.
- Somebody to provide drinks or food for the participants.
- An observer or two from the organization for which the study is being done.

Initial Questionnaires</B<>
It hardly ever happens that all participants in a group arrive at the same time. Even when we ask people to be sure to arrive at the advertised starting time, some arrive late, and others arrive much too early. As soon as they arrive, participants are keen to know what will be happening. It can be tiresome to repeat this over and over again, as each new participant arrives. To give them something to do, we usually have a preliminary questionnaire, which people can fill in as soon as they arrive. Those who arrive late can fill in their questionnaire while the discussion takes place.

As well as giving participants something to do while the others arrive, these questionnaires can collect useful information. They can also be used to raise questions that participants can think about and discuss later: such as "If you could make one change to FM99, what would it be?"

These questionnaires are short and simple. I try to restrict them to a single sheet of paper, with questions only on one side. As some people prefer to communicate in writing, we let participants keep their questionnaires throughout the discussion, and invite them to write their thoughts and comments on the blank back of the questionnaire.

Seating Arrangements
A good type of room arrangement is a large table (or several smaller tables pushed together) around which the participants sit in chairs. The tabletop is useful for filling in questionnaires, and for food, drink, and microphones.

Another good arrangement is a D-shaped one. The participants sit in a semi-circle, with the moderator near the centre. The straight part of the D is the wall on which the results are

displayed. The secretary sits at one end of the D. If there is a photographer or video operator, this person usually stands somewhere near the other end of the D.

In some cultures, people prefer to sit on the floor. This is no impediment, but if the participants are to fill in questionnaires, you will need to supply a writing surface (such as a clipboard) for each participant.

Displaying Data

An essential part of the consensus group technique is the poster: large sheets of paper, taped to the nearest wall, or on an easel. On these posters, the secretary writes the findings of the group, in large letters so that all participants can read them. (If some or most are illiterate, symbols can be used as well as words.) It's also possible to use a blackboard or whiteboard, but large sheets of paper are best because they can be taken away and kept as a record of the discussion.

Lately we have found a better method. Instead of using a few large sheets of paper, we have used many small sheets of paper, about A4 size: one for each statement.

Electronic Recording

If possible, the whole discussion should be recorded, either on video tape or on an audio cassette. Video has many advantages, but it has the disadvantage of requiring a camera operator. Though it is possible to set up a video camera and simply point it at a group of people sitting in a semicircle, most detail will be lost, without an operator to zoom in on each person as they speak, and to record the reactions of other participants.

You might expect that to have a video operator present would greatly distract the participants, but we have found this is not so. After the first few minutes, participants usually stop noticing the video camera. (This is obvious when replaying a video recording, because participants seldom look directly at the camera.) The video operator should intrude as little as possible, and stand back at a reasonable distance. Note that, to focus on a whole group of 12 or more people, you will often need a larger room than you might expect - or a video camera whose lens can zoom out to an unusually wide angle.

If a video camera is not available, the next best thing is to record the discussion on audiocassette or minidisc. This does not require a separate operator - the secretary or moderator can work it. Some requirements for successful audio taping are:

- With a video recording, you can see who is speaking, but with audio, some voices may sound the same. To help identify voices, the moderator should address participants by name as often as possible. The moderator may also need to describe other things that are happening which will not be recorded on the tape. For example, if a participant shows the others a printed advertisement, the moderator should describe what is happening.
- You need a good microphone. After much experimentation, we discovered the boundary layer or PZM microphones or similar microphones, which are made by several manufacturers. A boundary mike looks like a flat piece of metal, about 20 cm square. It sits on a tabletop or other flat surface, and records all sounds reaching that surface. The microphones built into cassette recorders are usually of too low a quality to pick up voices clearly, specially when several people are speaking at once, and the microphone is more than a few metres away. Microphones designed for broadcasting don't work well in this situation, because they are designed to pick up sounds from only one main direction
- Double-check that everything is working! It is surprisingly easy for something to go wrong when you are making a recording. Batteries may go flat (in either the recorder or the microphone), plugs may not be inserted fully, the tape can be set to "pause" and forgotten, the volume control can be turned right down, the machine can be switched to "play" instead of "record", and so on. I prefer a tape recorder with an indication of the volume (flashing LED lights or a VU meter), and a tape compartment with a clear window so that you can check that the tape is turning.

Identifying Participants

We use name tents to help identify the participants to each other and to the organizers. A name tent is a folded piece of cardboard, with a participant's name written on it, like this:

Indica

If the name tents are put on the table in advance, this can be used as a way of planning where people sit. If a few of the participants are from the same family, they are likely to distract the other participants by whispering if seated next to each other, so it is a good idea to separate them.

If the participants are not sitting at a table, an alternative to using name tents is to draw a map of the seating arrangements, marked with all the participants' names. This can be displayed on a wall for all to see.

6. First Stage: Introduction

When almost all participants have arrived, the discussion can begin. In the first stage, the moderator introduces himself or herself, and asks each other participant to do the same. Here we are looking for information that will help to understand that person's later comments. For example, if the topic is a radio station, I find it helpful to ask participants to describe their households, their daily routine, and their radio listening habits. Another purpose of this first stage is to help each participant gain confidence in speaking to others in the group.

Not a lot of detail is needed here: each person should talk for one or two minutes. The moderator's own introduction will set an example for others to follow.

This stage usually about 20 minutes, for a group of 12 people.

7. Second Stage: Discussion

After all participants have made their introductory talk, the moderator begins the second stage, by outlining the issues that the discussion will cover. This should be done very broadly, so that issues will be placed in their context. For example, if the study is about a radio station's programs, it is useful to gather opinions on other media which may compete with radio for people's time: television, newspapers, and so on.

If the participants do not already know which station is conducting the research, it may be best not to tell them just yet, so that their opinions will be more unbiased. In some cultures,

if participants know which organization is conducting the research, they are reluctant to criticize it in the presence of people from that organization. Almost certainly, they will identify the organization later in the discussion, so the early stages are the only opportunity to hear completely unbiased opinions.

When each participant speaks in turn, this ensures that everybody has a say, but doing this for hours makes conversation very awkward. My preference is to begin and end the discussion phase by asking each participant in turn to say something about the topic. For the rest of the discussion phase, anybody can speak, as they wish. Sometimes the moderator needs to intervene to prevent one or two people from dominating the discussion, or to encourage the shyer participants to have their say.

The organizers should not be drawn into the discussion. If a participant asks the moderator "what do you think of this matter?" the moderator should answer "it's your opinions that are important here, not mine. I don't want to influence you. " The purpose of the meeting is for the listeners to provide information to the organization that is conducting the research. But participants may try to reverse the flow of information, and begin questioning the organizers in detail. If the organizers respond, much of the meeting time can be wasted. The moderator should handle such questions by stating that there will be a "question time" at the end of the meeting.

The discussion itself can be either structured or unstructured (the difference is explained below), and will typically run for 1 to 2 hours. The moderator can usually control the duration. While discussion takes place, the secretary notes down statements which most of the participants seem to agree with. These statements are usually not written on a poster at this stage, but on a sheet of paper for the secretary's later use. We've found that displaying statements soon seems to stop participants from thinking further about a topic. If anything is written on a poster at this stage, it should be a question or a topic, not a conclusion.

Unstructured Discussions

An unstructured discussion is one in which the moderator merely introduces the broad topic, and sits back to let everybody else talk. The advantage of this approach is that participants feel unfettered by restrictions, and may provide useful and unexpected insights. The disadvantage is that much of the discussion may be irrelevant, and will not provide useful information. Therefore it is normal for the moderator to interrupt when the discussion drifts away from the stated topic. For example, if the stated topic is radio, the discussion will often drift onto television.

If the organizers have a list of questions they want answered, an unstructured discussion will usually cover most topics, without the moderator having to introduce the topics one at a time. The moderator can have a list of topics, and check them off as they are covered. Towards the end of the discussion period, the moderator can ask specifically about topics that have not been discussed.

Structured Discussions

With a structured discussion, the moderator introduces issues one at a time, and asks the participants to discuss them. The moderator should avoid asking the participants any questions which can be answered Yes or No. (If that is the type of information you want, you should be doing a formal survey, not qualitative research.) Instead, the moderator should say things like:

- "Tell me some of the things you like about the breakfast program on FM99."
- "Why do you no longer listen to that program?"

Both of the above questions are the type that seek detailed responses, and are loose enough to allow for unexpected answers. If the questions asked are too specific, you risk not finding out the essential facts.

Another type of structured discussion involves playing excerpts of programs from a prepared tape. Reactions to specific programs are uslaly more useful than general comment. For this purpose, we normally prepare tapes of 10 to 20 short program extracts, averaging around one minute — just long enough to illustrate a particular point, or jog the memories of people who are not sure whether they have heard or seen a program before.

Play one item at a time, then let people talk about it for a few minutes.

Consensus group participants often express themselves vaguely, making comments such as "I'm not very impressed with the news on FM99." Statements like this are not useful, and need to be followed up with questions, such as "What is it that you don't like?" or asking them for some specific examples. If the moderator does this a few times early in each discussion, the other participants will see what sort of comment is most useful.

Structured vs Unstructured

The main advantage of an unstructured discussion is that it will often produce ideas which the moderator and secretary have not thought of. The main disadvantage of unstructured discussions is that they take a lot longer, because participants tend to drift off the subject.

However, a discussion need not be wholly structured or wholly unstructured. It can begin in one of these modes, and move to the other. It's best to begin unstructured, and introduce structure later. If you do it in the reverse order, beginning with a structured discussion then allowing some unstructured time at the end, participants seldom come up with fresh ideas.

Generating Statements

The output of a consensus group is a set of statements. These can come from either the organizers or the participants:

From the moderator or secretary:

- A few initial statements, fairly bland (so as not to bias the discussion) but clearly phrased (to show participants the expected style)
- Statements agreed on by previous groups in the same series;
- Findings from earlier research on the same subject.

From Participants

- Their spontaneous opinions
- Their reactions to statements made by other participants
- Their impressions and reports of what other people (not present) think.
- Each participant in turn can be asked to make a statement that he or she thinks most people agree with.

Initially, some participants make timid statements that provide little information, even though most others would agree. For example, "the sky is blue" is clear and concise - but how useful is it? Even worse: "the sky is often bluish, but sometimes it's more grey." When statement-making begins, the moderator should encourage participants to make more daring statements, which may only just reach a consensus.

8. Third Stage: Consensus

In the final stage, we seek consensus on the issues discussed in the second phase of the session. By this time, the secretary will have a list of statements that he or she thinks most participants may agree with. The secretary now displays each statement in turn, and the moderator invites participants to agree or disagree with it.

The object is to find a statement phrased in such a way that the great majority of participants are able to agree with it. The original statement will usually need to be altered somewhat so that as many people as possible can agree with it.

The simplest way for participants to show agreement is by raising their hands. This works well in some cultures, where people are more assertive or individualistic (e.g. Western and Chinese-influenced societies), but in more group-minded cultures (e.g. Buddhist societies, Japan) participants are often reluctant to show that they disagree with others.

A more discreet way to indicate agreement is for a participant to hold up a palm-sized piece of cardboard. This can be held close to the chest, and is much less obvious to others than an upraised hand.

We normally give each participant a bright green card - the colour needs to contrast with the participants' clothes, so that the cards will be visible in the videotape or photographs.

Voting is in two stages. For each statement in turn, the moderator reads it out, and shows it written on the wall.

The first stage is to check that everybody knows precisely what it means. Participants are asked to raise their hands (or their cards) if they are certain of its exact meaning; often they will not be. If even a single participant admits to being uncertain, the statement should be reworded. Sometimes the person who first made a statement needs to be asked exactly what it means. The secretary or the moderator will then suggest a revised wording, and participants are again asked if they know exactly what it means. When all participants are certain of the meaning, the voting can go ahead.

Participants are now asked to display their cards or raise their hands if they agree with the statement. Some people want to half-agree with a statement. We tell them: "Unless you're sure that you agree, don't hold your card up."

As the moderator reads out each statement, and points it out on the wall, and asks how many agree with it, the secretary (who is facing the participants) counts the number of cards or hands being held up.

We declare a consensus if at least three quarters of participants agree: at least 8 out of 10 voters, 9 out of 11, or 9 out of 12. Whether the threshold of consensus is set at 70% or 80% or 90%, it makes little difference to the results.

If only a few participants do not agree with a statement, they are asked which parts of it they don't agree with. The moderator asks these people "Could you agree with it if a few words were changed?" Often, this is possible. If a statement expressed in an extreme way is softened a little, more people will agree with it.

For example, this may strike some people as extreme...

- People who do not listen to FM99 should have a loudspeaker set up in the street outside their home and be forced to listen to FM99 all day.

  Not many people would agree. A few more might agree that...

- People who do not listen to FM99 should be given a free radio which only receives FM99.

  But hardly anybody would disagree with...

- People who do not listen to FM99 should be told that it exists.

  When consensus has been reached, the secretary writes the modified statement on the poster, together with the numbers who agree. For example, if 11 out of 12 people agreed:

People who do not listen to FM99 should be told that it exists. 11/12

When there's no Consensus

Sometimes it is not possible to reach consensus, and the group will divide into two sections, with no common ground. In such a case, try to get two statements, each with as many as possible agreeing, and record both statements, with appropriate annotation.

It's best to put non-agreed statements aside until all statements have been worked through, then come back and reconsider the non-agreed statements. There are two reasons for this. Firstly, it's possible to spend so long arguing over non-agreed statements that the group has no time to finish properly. Secondly, after all the original statements have been worked through, participants will have a better knowledge of each other's positions, and more will easily agree on statements which they could not agree on at first.

If few people agree with a statement (no more than about 4 out of 12) it's often useful to reword the statement as the exact opposite of the original. You might expect that if 4 of 12 agree with a statement, 8 should agree with its opposite. But this is often not true - sometimes almost everybody will agree with the opposite. In other cases, the group will be evenly split.

When between one third and two thirds of the participants agree with a statement, this can signal several things:

a. The statement may be confused, or contain several different ideas: so try splitting the statement into two separate statements.

b. There is a fundamental division of opinion within the group: in this case, reword the statement to maximize the split, so that there is a consensus within each of two factions.

After the secretary has finished going through the statements that were noted during the discussion stage, participants are asked to add statements that they feel most others will agree with. Each participant in turn can be asked to make a statement, which is then modified and voted on in the same way.

The moderator may then offer some final statements for evaluation. Unless this is the first of a set of consensus groups, now is the time when statements agreed in earlier group sessions can be shown to participants. Because the wording has already been clarified in the earlier groups, there's usually no need to modify it now. It's simply a matter of voting, which can be very quick in this case.

When the purpose of the project is to help an organization understand its audience, I've found it helpful to add some groups with the staff as participants, keeping staff of different status levels in separate groups. The statements produced by staff are often very different from those produced by the audience, and different groups of staff (unlike different audience groups) often produce statements that are very different from each other's. This can be very educational for management.

In a typical 2-hour session, most participants agree on about 20 to 30 statements. As a final step, the moderator can ask participants to classify the statements into groups of similar statements, then for each of these groups of statements to produce a new statement summarizing the whole group.

Finally, the statements can be laid out on a large sheet of paper. Imagine all possible statements being spread out in two dimensions, as if on a map. An irregular shape on this map might define the statements with which most people agree. At the centre of the map are the statements that are so obvious that they are hardly worth stating. For example, all regular listeners to a radio station might agree with "I usually like what I hear when I listen to FM99." (Otherwise, they probably wouldn't listen.) Towards the edge of the irregular outline on the map are the borderline statements, at the boundaries of agreement of the station's listeners. An example of a borderline statement might be "Though I usually listen to FM99, I listen to other stations when I don't like the FM99 program." These borderline statements tend to be more interesting, and less obvious. Beyond that borderline are the statements on which agreement could not be reached.

The consensus-seeking stage of the discussion will typically last between 30 minutes and one hour, depending on how many statements are offered for discussion. Sometimes a group will split into two sub-groups, which hardly agree on anything. In these cases (which are rare) the consensus stage will take much longer.

Why separate the discussion and consensus stages? You may wonder why discussing issues and reaching consensus are presented as two separate stages of the discussion. Wouldn't it be more efficient to take each topic one at a time, reach consensus on that, then move on to the next topic? I have tried this, but found it impedes the flow of discussion. Also, returning to a topic at the consensus stage gives people more time to gather their thoughts, and consensus seems more easily reached after a time gap. The only exception is when the discussion is structured, by being divided into a number of clear parts - for example when a lot of short program excerpts are being played to the participants, and they reach agreement on each one separately.

9. Summarize the Results

Sometimes the most difficult part of running a consensus group is to persuade the participants to leave at the end of it. With some groups, nobody wants to go home, and most participants may sit around and talk for an hour or two longer; my record is 5 hours. I find these late sessions very useful. By that time, the participants know each other (and the organizers) much better, and may volunteer information which they did not want to do in the "official" part of the discussion. For this reason, I usually leave a tape recorder running for as long as possible.

The outcome of each group is one or more posters listing the agreed statements, showing how many people agreed with each statement.

After three group sessions, you will have three sets of statements. The reason for holding three groups is that one group may develop its thoughts in quite a strange way, perhaps due to one or two powerful personalities. With two groups, one of which may be atypical, you won't know which is which, but with three, if the results from one group are very different from those of the other two, you will know that one is atypical.

Though you will never get three groups coming up with exactly the same set of statements, we have always found strong similarities. If at least two of the three groups came up with similar statements, these statements can be safely assumed to be representative of the whole audience sampled. No matter how differently the three groups are selected, we usually find a lot of agreement between the lists of statements when the discussions have been conducted in the same way. Observing the similarities will give you confidence that the results are true of the entire population studied, not only of the three disparate groups.

Have the three lists of statements typed out, or lay them out in map-like form as described above. This will be the basis of a report resulting from the discussions. Add a description of any taped stimulus material, and the criteria used for selecting listeners, complete a survey summary form, and that may be sufficient. If you have taped the discussions (whether on audio or videotape) you can copy relevant comments to illustrate each of the agreed statements, and include these in a more detailed report.

In summary, the consensus group technique is one that can be used by inexperienced researchers with reasonable safety. It is more difficult to draw wrong conclusions with this technique

than with other types of qualitative research, and the findings are often more directly useful than those from formal surveys. However, the technique is not a simplistic one. Even highly experienced researchers can use it, to supplement the focus group technique. Inexperienced researchers will find that as they conduct more and more consensus groups, they will be better able to fashion the agreed statements. As well as being an accurate reflection of the participants' opinions, these statements are more usable by the organization which has commissioned the research.

LESSON 27:
INTERNET AUDIENCE RESEARCH

Topics Covered
Understanding, Methods, Data, Possibilities

Objectives
Upon completion of this Lesson, you should be able to:

- Using existing data.
- Internet jargon
- Understanding Quantitative methods online
- Knowing the Qualitative methods
- Possibilities of internet research

Internet Audience Research
Every two-way communication medium has been used for market research: face to face, mail, and telephone. So it's not surprising that when the Internet became popular, it was quickly put to use for audience research.

Internet audience research is still at an early stage, and many technical problems can occur. However the cost savings are so great that this method is well worth pursuing.

Internet Jargon
This chapter includes some terms that will be familiar to experienced internet users, but not to most other people. The first time each term appears, it's briefly explained. Definitions of the 100-odd commonest terms used in internet research can be found on the Audience Dialogue Jargoncracker page.

1. Possibilities of Internet Research
Even in the richest countries, most people are not regular internet users. Though the percentage of people using the internet has been growing fast, the growth rate is sure to slow down. I'd be surprised if by 2005 as many as 90% of the population of any country are regular internet users - unless computers become far easier to use.

When less than 90% of a population use a medium, it's dangerous to do a survey and expect that the non-users would give the same answers, thus making the results true of everybody. This is why telephone surveys weren't widely used until the 1980s, when in the richest countries about 90% of households had a telephone. And it took 100 years for the telephone to reach that level of coverage. Penetration of the internet is already much faster than that, but for the next few years any surveys done on the internet will have to be based on specific populations already using the internet.

An aspect of surveys which the internet may change is sample sizes. With the internet, it costs little more to survey a million people than a hundred. So why bother with a random sample? Why not interview everybody - such as all visitors to a web site?

This is an attractive idea, because sampling error disappears, and personal computers are now fast enough to analyse huge samples. However, there are disadvantages. Completed questionnaires always need to be checked carefully, and computers can't do this as well as humans.

Also, large samples are no substitute for accurate samples. If a million people visit a web site, and 100,000 of them respond to a questionnaire, the results could still be completely wrong - if the 900,000 who didn't respond are different in some important way. And if the response rate is only 10% they probably will be different. So it's still important to ensure a good response rate, of 70% or more. To achieve a high response rate, the same criteria apply as for other surveys:

- Give people a strong incentive to respond. Like mail surveys, and other surveys without personal contact between the interviewer and respondent, internet surveys need to use incentives, to boost the response rate.
- Make it easy for people to fill in and return a questionnaire: not too long, questions not too difficult to answer, not repetitive, etc.
- Make the questionnaire interesting - even fun.
- Above all: follow-up is essential. Reminder messages must be sent to people who haven't yet returned questionnaires. (But if you can't contact the potential respondents - as is the case with many internet surveys - follow-up is not possible.)

Advantages of Internet Research

1. Low Cost
The main attraction of internet research is its low cost. Because the equipment has been paid for (mostly by respondents), the cost to researchers is very low. No printed questionnaires, no interviewer wages, no mail-out costs, no data entry costs. And instead of paying for every phone call made (as with a telephone survey), questionnaires can be emailed to an unlimited number of people for the cost of a single phone call. Even the costs of producing reports can be done away with: reports can be distributed by email or on the Web.

This will have a revolutionary effect on the market research industry. Costs will drop enormously: when the computer setting-up costs have been paid, the only remaining major costs for a survey will be the labour involved in questionnaire development and analysis. And when a survey is repeated (e.g. to monitor trends) the same questionnaire can be used over and over again, and the analysis can be computerized. With all these advantages, I predict that within a few years most professional surveys in Western countries will use the internet whenever possible..

Until then, only one population can be researched using the internet, with no worries about sampling problems. That population is (of course) people who already use the internet. So the internet itself can be used to do audience research about internet sites.

2. Fast Response

With a typical email or web survey, most of the responses come back in less than one day. No other survey method can match this - but in fact, such a fast response isn't always desirable.

For broadcasting: if a survey is done too quickly, without several callbacks, the people who are out a lot will be less likely to be interviewed. Because most TV viewing is done at home, a too-quick survey will overestimate TV audiences. Generally, about 3 days are needed for a fully accurate survey. With the Internet, this is easily possible - only a highly-staffed telephone survey can match it.

3. Ability to Show a Wide Range of Stimuli

As long as respondents have modern computers, they can see far more on an internet questionnaire than a paper one. Coloured pictures, even moving pictures, and sounds are all possible. If you are asking "Have you ever seen Alfa MarathiTV program?" you can show a short clip from it, to make sure that respondents know exactly what is being asked. Though many people don't yet have a computer capable of showing all this, within a few years they will.

Problems with Internet Research

On the Internet, there are new problems, which seldom occur with more traditional surveys. The commonest problems (apart from poor samples and low response rates) are multiple submissions, and lies.

Problem 1. Multiple Submissions

Many people inadvertently submit a completed questionnaire several times, by mistake. Often, they click a SUBMIT button to send in their questionnaire. Nothing seems to happen, so they click it again. Perhaps again - to make sure it is sent. So three identical questionnaires arrive at the host computer. How can the researchers know if this was really the same person sending in a questionnaire three times, or three different people who just happened to give the same answers?

Another reason for multiple submissions occurs when respondents are offered a very attractive incentive - such as a prize. So, when possible, use *cookies* to prevent people from making multiple submissions. Cookies are small files which can be automatically sent to a visitor's computer), but they don't solve the problem completely. If a computer has more than one user, a cookie will prevent a legitimate respondent from sending in a questionnaire. If a respondent sends in a questionnaire by mistake before it's completed, the cookie will stop them from making a correction.

Multiple submissions are also a problem with email surveys, but these are easier to check, because the sender's email address is always known. However, some skilled computer users can hide or fake their email - and many people have more than one email address.

Problem 2. Lies

On the internet, respondents lie! This happens sometimes with mail surveys and self-administered questionnaires, but it's usually rare. With real interviewers - whether face-to-face or by telephone - respondents don't have time to lie. But with internet surveys, I've often found blatant lying. Though it's often possible to detect a lie (if you study the responses carefully enough), you don't know what the correct answer is. Most people don't realize that some of their answers can be checked. For example, the country that somebody is in can usually be worked out from the IP number of their computer.

Part of the reason why internet respondents lie is poor questionnaire design. I've even lied myself, from frustration. With a live interviewer, or a paper questionnaire, at least you can write in an answer for a multiple-choice question which doesn't offer an answer to fit your situation. But with Web surveys, it's possible to force respondents to give one of several answers. If no space is provided for comments, their only alternatives are to lie or to give up on the questionnaire.

Recently, for example, I was filling in a Web questionnaire. I was asked: "Which state do you live in?" The 50 US states were then listed. Perhaps the survey was only intended for Americans (though it didn't say so), or perhaps the writer didn't realize that the questionnaire could be seen by anybody in the world. So, to find out what questions came next, I pretended to live in some US state. I clicked the mouse somewhere, without even looking at what state I chose.

Anybody who carefully analysed the results of that survey could have found that I had an Indian IP number, but supp-osedly lived in the USA. So it was possible for them to discover that I'd lied - but, judging from the obvious lack of care taken in the rest of the questionnaire, I suspect they never knew that I'd lied.

So if you don't want respondents to lie, let them give their own answers, without being forced to choose one of yours. I strongly suggest that, on a Web questionnaire, every question should have a space for comments or "other" answers - even a question as seemingly simple as "Which sex are you?" (Sometimes men and women jointly complete a questionnaire. In this situation, they'll answer "both sexes.")

Another advantage of having plenty of open-ended questions is that liars will give themselves away with their comments - or at least, raise strong suspicions. But of course, if you're getting thousands of responses a week and have only one researcher on the job, there's no time to read through the data file and assess its accuracy.

Screeners, Recruitment, and Virtual Facilities

Many elements of the on-line qualitative process are familiar to qualitative researchers conducting in-person groups. Every on-line group is initiated by contracting with a virtual facility that usually offers recruitment services as well as virtual rooms. Virtual facilities typically recruit respondents electronically from established panels, compiled on-line lists, targeted Web sites, or client-provided lists. Sometimes, telephone recruiting is used to make the initial recruitment contact or to obtain e-mail addresses. (Independent recruiters specializing in on-line group recruitment are just beginning to appear and this will, undoubtedly, be another area of growth potential.)

Recruiting on-line groups requires specially crafted screeners that are similar in content and depth to those used for in-person groups. Since the screeners are administered electronically, some questions are worded differently to disguise qualifying and disqualifying answers. A professional on-line facility, in combination with a well-written screener, will thank and release all

disqualified respondents without them knowing why. This, as well as putting a block on their electronic address, discourages them from re-trying to qualify by logging back in or from sharing information about the specific screener questions with friends. Depending upon the target markets, it is not unusual with high-incidence groups to have an excess of qualified respondents to choose from and the virtual facility and/or the qualitative researcher will select the best.

The time set for an on-line group should accommodate the array of respondents participating. If there are East and West Coast participants, groups can be conducted later in the evening (based on GMT) or participants in similar time zones can be grouped together.

Invitations and Preparation

Respondents who are invited to the group receive invitations with passwords and pass names, instructions, dates, and times. The invitation requests that they sign on to the site in advance of the group, using the computer they will use during the group, to guarantee that all technology is compatible. If there are any complications or questions, the respondents can contact tech support in advance to resolve them. They can also contact tech support during the group for on-line support, as can the moderator and client observers.

Discussion Guide Development and Design

The content and structure of the inquiry, as outlined in the discussion guide, resembles in-person groups. The major difference is in the actual presentation of questions that are mostly written in full sentence form, in advance. The main topic questions must be written clearly and completely otherwise respondents will have to ask for clarification, which uses up valuable time and diverts the attention of the group.

On-line groups are often shorter (typically 60 to 90 minutes) than in-person groups and the ideal number (30 to 45) of prepared questions depends on the complexity of the subject and the amount of follow-up probes required. Whenever desired, follow-up questions and probing can be interjected to either an individual respondent or the entire group. This enriches the inquiry and uncovers deeper insights. Unfortunately, sometimes research sponsors can insist on an excessive amount of prepared questions that minimize the amount of probing time. The result is a missed opportunity to uncover deeper insights.

Preparation for Groups

Fifteen to 30 minutes prior to the group, the moderator and technical assistant sign on to watch as respondents enter the virtual waiting room using their passnames and passcodes. Similar to in-person groups, some respondents arrive very early and others arrive at the last minute. As they arrive, some virtual facilities can administer a rescreener to re-profile them and to assure that the attendee is the person who originally qualified. In addition to a few demographic and product usage questions, the rescreener can include a verification question that refers to a piece of unique, personal info, such as the name of their first teacher or pet, that was subtly asked in the original screener.

Show Rates

Show rates can vary dramatically based on a number of factors, including: the origination of the respondent (on-line database, established panel, Web site intercept, etc.), confirmation procedures, respondent comfort and familiarity with the on-line venue in general, and the typical kinds of other personal/business commitments that can inhibit attendance. For eight respondents to show, 10 or 15 may have to be recruited. However, it should be noted that the weather, traffic, and transportation can have less of a negative impact on show rates since the respondents are typically participating from a variety of locations and not encountering the same delays.

Selecting Final Respondents

Based on the rescreener information and final screener spreadsheet, the moderator and client select the respondents together, similar again to in-person groups.

Moderating

For a moderator, the excitement and pace of moderating an on-line group can be likened more to a roller coaster ride than an in-person group. Ideally, the discussion guide is downloaded directly onto the site so the moderator can, with one click, enter a question into the dialogue stream. However, another method more frequently available and workable (although requiring more concentration and actions by the moderator) is having the discussion guide document loaded in a separate window behind the virtual room to use for cutting and pasting each question.

To begin a group, the moderator introduces the purpose of the group and lays the ground rules. This includes a personal introduction, purpose, timeline, instructions for entering responses, encouragement to be candid and honest, and instructions for signing back on if they accidentally drop off. Respondents are also encouraged to "feel free to agree, disagree, or ask questions of each other that relate to the subjects being discussed" and told that this interaction will help bring the discussion to life.

On-line groups demand that a moderator possess strong and fast keyboard skills or be willing to hire an assistant who does. There are no unused moments during a group to accommodate slow typists on the moderator side. Respondents can type slower, but most are keyboard proficient and save time by cutting corners on spelling and not worrying about sentence construction. It helps to tell them right in the beginning that "typo's and sentances dont mater."

While a group is underway, there may be technical problems with respondents and clients that require telephone calls back and forth to resolve. Simultaneously, the moderator is reading and interpreting the response stream, responding to client notes, composing probes and entering questions while (potentially) dealing with all kinds of technical issues.

Also, moderating on-line groups requires someone who relates to the on-line venue and recognizes that respondents are adept at developing relationships in this medium. Many respondents participate in chat rooms and feel comfortable relating on-line. At the same time, it is the responsibility of the moderator to

help make the respondents who are not as comfortable or experienced feel valuable.

The strategy of on-line moderating resembles in-person moderating. That is, the moderator follows the discussion guide to the extent that it continues obtaining the desired information. If a subject that was supposed to be covered later in the group is brought up earlier by the respondents, those questions can be inserted as the moderator sees fit. In addition, if topics not covered in the guide are introduced, the moderator can choose to interject a new line of questioning.

Technical Support

All virtual facilities offer some level of technical assistance. This may be a technician whose role is to help everyone sign-on and to help anyone who gets kicked off and has trouble re-entering. Other technicians perform additional functions including hosting the waiting room and interacting with respondents while they wait.

Another option is for the moderator to hire their own project assistant who greets the respondents and chats with them in the waiting room - warming them up - while the moderator takes care of any last-minute details with the clients and facility. This assistant then supports the moderator throughout the group in whatever capacity needed, which could include co-moderating if, by remote chance, the moderator loses her/his connection. This person also has an overview of the project objectives, screening, discussion guide, and the moderator's style, areas that a virtual facility's technical support person would not be privy to.

Transcripts

Soon after the completion of the groups, transcripts are available for analysis and reporting. These transcripts, available within a few hours or the next day, may document all interactions from sign-on to sign-off, or they may be slightly edited (by the facility or moderator) to begin at the first question and end with the last question, eliminating the hellos and goodbyes. Inappropriate respondent comments can be easily removed.

Analysis

Analysis and reporting are similar to in-person groups, with the exception that transcripts are quickly available for every group. The analysis will be very inclusive and reflect the input of most respondents since most of them answer every question. In the absence of visual and verbal cues, analysis of some areas, such as appeal, will be based on an interpretation of respondent statements and the ratings they use to indicate levels of appeal.

Reporting

Reports are virtually the same as other qualitative reports covering areas such as objectives, methodology, conclusions, and detailed findings. They can be in topline, executive summary, or full report form. Typically, reports can be turned around more quickly due to the immediate availability of the transcripts.

A Qualitative Caveat

Results from on-line groups depend on the expertise and qualifications of the professional who is conducting them. The most knowledgeable and qualified professionals to conduct on-line groups are qualitative researchers who have research and marketing expertise and experience managing group interactions. "Techies" sometimes attempt to do groups because they are comfortable with the technology and mechanics and some even have experience with chat groups. However, they often lack research, analysis, moderating, and marketing expertise and the results can suffer from these deficiencies.

Assignments

1. The advacement in computers is astornishing do you agree? Answer pointing out various characteristics of computer?

LESSON 28:
ANALYZING ONLINE DISCUSSIONS: ETHICS, DATA, AND INTERPRETATION

Topics Covered

Understanding, Considerations, Collection, Management, Preparations, Manipulations

Objectives

Upon completion of this Lesson, you should be able to:

- Using existing data.
- Know the Ethical Considerations
- Understand the Data Collection methods and Management
- Using the prepared Data.
- Data Manipulation and Preservation

Analyzing Online Discussions: Ethics, Data, and Interpretation

Online discussions are attractive sources of information for many reasons. Discussion forums frequently offer automated tracking services, such as a transcript or an archive, so that you can engage in animated conversation and analyze it at leisure, or locate conversations that took place months or years ago. Online tools provide an opportunity to observe a group without introducing your own agenda, to follow the development of an issue, or to review a public exchange that took place in the past, or outside the influence of researchers and policymakers. You can test additions and revisions to tools for communication, building more effective online classrooms, research groups, and professional organizations. Whether you are looking for ways to improve interactions within a working group (Ahuja & Carley, 1998), studying the interactions of a community that interests you (Klinger, 2000), or assessing student learning, online discussions can be a valuable tool.

An online discussion is identified by the use of a computer-mediated conversational environment. It may be synchronous, such as real-time chat, or instant messaging, or asynchronous, such as a list server, or bulletin board. It may be text-only, or provide facilities for displaying images, animations, hyperlinks, and other multimedia. It may require a Web browser, a Unix connection, or special software that supports such features as instant messaging. Tools for online conversation are becoming increasingly sophisticated, popular, and available, and this increases the appeal of using online discourse as a source of data.

Online discussions present new opportunities to teachers, policymakers, and researchers, but they also present new concerns and considerations. This article is about access to, and management and interpretation of, online data. Online research is similar, but not identical to, face-to-face (f2f) research. There are new ethical considerations that arise when it is not clear whether the participants in a conversation know they are being monitored, or when that monitoring is so unobtrusive that it can easily be forgotten. Instead of collecting data using audio and video recording as in f2f conversations, preserving online conversations requires ways to download or track the electronic files in which the information is stored. Finally, in f2f interactions we examine body language and intonation as well as the words spoken, and in an online interaction, we have to look beyond the words written to the electronic equivalents of gestures and social conventions. This article will address these issues of ethics, data collection, and data interpretation.

This article is *not* about recommending any particular method of analysis. Whether you use grounded theory, quantifying techniques, experimental manipulations, ethnography, or any other method, you will have to deal with issues of collecting and managing data, as well as the structure of online communication.

Ethical Considerations

Before we consider how to analyze an online conversation, we need to first consider what precautions should be taken to protect participants in the conversation. Because online conversation is relatively new and unfamiliar, and takes place at a distance, it is relatively easy to overlook possible ethical violations. People may not realize that their conversations could be made public, may not realize that they are being monitored, or may forget that they are being monitored because the observer's presence is virtual and unobtrusive. Some participants may feel relatively invulnerable because of the distance and relative anonymity of online exchanges, and may use these protections to harass other participants. Online exchanges of information require the same levels of protection as f2f exchanges, but it can be more complicated to achieve this.

If you belong to a university or similar institution, you will need the approval of an Institutional Review Board, created for the protection of human beings who participate in studies. Teacher-researchers and others who do not have an IRB and are not associated with any such institution should nevertheless follow the ethical principles and guidelines laid out by copyright act.

The least problematic conversations are those that take place entirely in the public domain; people know they are publishing to a public area with unrestricted viewing, as if they were writing a letter to the editor. Newsgroups are an example of such exchanges—anyone with access to http://groups.google.com/ can access any conversation in the past twenty years. In many cases, this sort of research is considered "exempt" under Govt. guidelines for the protection of human subjects; for researchers at institutions with an IRB, the board must confirm this status. Still, even public areas may contain sensitive information that the user inadvertently provided; novices are especially prone to accidentally giving out personal information, or including personal information without considering possible misuse. In addition to the usual procedures for anonymizing data (e.g., removing names, addresses, etc.), there are some additional

concerns to address. Every post must be scoured for both intentional and unintentional indicators of identity. Here are some common ways that anonymity is compromised:

- Usernames like "tiger1000" do not provide anonymity; people who are active online are as well known by their usernames as their traditional names. Usernames must be replaced with identifiers that provide no link to the actual participant.
- You must also be vigilant in removing a participant's .sig (the signature file that is appended to a post) and any other quotes, graphics, and other idiosyncratic inclusions that are readily identifiable as belonging to a particular individual.
- Identifying information is often embedded in a post through quoting; for example, if I were quoted by another participant, my email address might be embedded in the middle of his or her message as "tiger1000 (sumit_life@sify.com) posted on 1 February 2002, 11:15."

If a domain establishes any degree of privacy through membership, registration, passwords, etc., or if you wish to contact participants directly, then the communications should be considered privileged to some degree. In addition to the safeguards required for public domain data, using these conversations in research requires at very least the informed consent of all participants whose work will be included in the analysis, with explicit description of how confidentiality and/or anonymity will be ensured. The procedures for informed consent, recruitment, and data collection will require "expedited" or "full" review by an Institutional Review Board. Once approval has been given, consent forms will have to be distributed to every participant, and only the contributions of consenting members can be stored and analyzed.

If you set up a site for collecting data, regardless of how much privacy and anonymity you promise, you are ethically bound to inform all potential participants that their contributions will be used as data in research. One example of how to provide this information has been implemented by the Public Knowledge Project. To see how they obtained consent, visit http://www.pkp.ubc.ca/bctf/terms.html. Likewise, if you contact participants directly, you need to make their rights clear and obtain their permission to use the information they provide for research purposes before engaging in any conversation with them.

In addition to preserving the safety and comfort of participants, you must also consider their intellectual property rights. All postings are automatically copyrighted under international laws. Extended quotes could violate copyright laws, so quoting should be limited, or permission should be obtained from the author prior to publication. For more about international laws, visit http://www.law.cornell.edu/topics/copyright.html.

Data Collection and Management

Once you have received the necessary permissions and taken the necessary precautions, the next concern is the best way to collect and organize the data for analysis. An online exchange often evolves over days or months, and may require handling tens of thousands of lines of text, along with graphics, hyperlinks, video, and other multimedia. Consider what media will be present before choosing tools for management and manipulation.

For text-only exchanges, a flatfile spreadsheet is often sufficient. The text can be downloaded as plaintext, or cut and pasted in sections. Paragraphs or lines of text become entries in the spreadsheet, and can be parsed into smaller units if desired. Once the data is placed in a spreadsheet, additional rows and columns can be used to hold codes and comments, and the spreadsheet can be sorted on these to reveal and examine patterns.

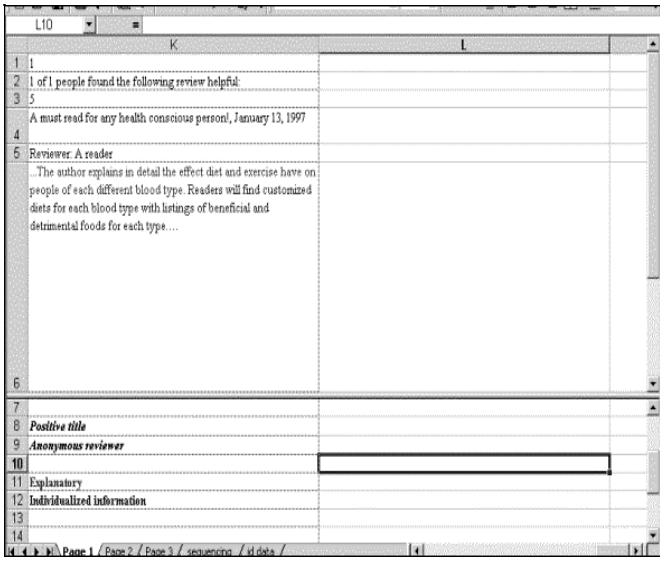
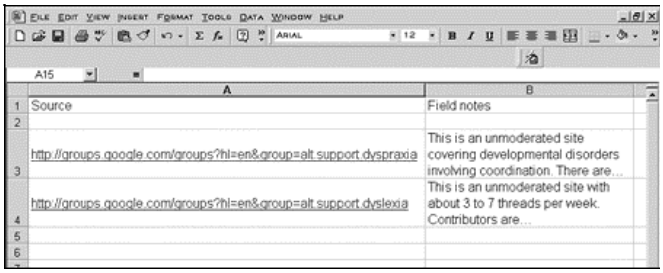


Figure 1. This sample is taken from an analysis of an online discussion of a book. At the top of the screen shot is a participant's entry, along with the information regarding its position in the thread, date of posting, and so on. Codes were added below each entry, shown at the bottom of the screen shot. The color of the codes corresponds to the color of the relevant text. Each participant's contribution can be added as an additional column.

There are many cases, however, when this technique will be ineffective. Because they can last for years, online conversations differ from f2f conversations in that they can be extremely long, often exceeding spreadsheet limits. Furthermore, they often contain hyperlinks, graphics, video, and other multimedia; these are often essential to the conversation, and most spreadsheets will not display them. When it is desirable to maintain these elements, there are two straightforward ways to do this. The first is to simply download all the relevant files and create a mirror archive on your own hard drive. This assures you constant, reliable access to the data, but may take up large amounts of space, and not all files can be downloaded (e.g. there may be security restrictions, additional software requirements, or intellectual property considerations). An alternative approach is to create a flatfile spreadsheet that contains hyperlinks to the original exchanges rather than the exchanges themselves. The disadvantage is that you cannot be sure the

original files will always be available, but the spreadsheets containing these pointers take up very little space, are less problematic legally and technologically, and provide the full functionality of a spreadsheet (e.g., sorting and manipulation).



	A	B
1	Source	Field notes
2		
3	http://groups.google.com/groups?hl=en&group=alt.support.dyspraxia	This is an unmoderated site covering developmental disorders involving coordination. There are…
4	http://groups.google.com/groups?hl=en&group=alt.support.dyslexia	This is an unmoderated site with about 3 to 7 threads per week. Contributors are…
5		
6		

Figure 2. This example includes links to discussions on developmental disabilities that affect schoolchildren. The links take you to the conversation described in the field notes.

The advantage to using a flat file database is that it allows for flexible coding. The disadvantage is that it does not support any particular theoretical perspective. For this reason, you may want to begin by using a flat file, then transfer data to a theory-based format after you have done some initial processing and can narrow down what you want to focus on. Such tools are described at the sites mentioned above.

Data Preparation, Manipulation, and Preservation

Online data creates extremely large files, not only because of their potential length but also because online conversations tend to be highly repetitive. Replies often contain portions of previous messages, if not the complete original; even if each individual contribution is relatively short, quoting can quickly create messages containing hundreds of lines. In addition, multimedia elements tend to take up considerable space. It is not unusual for a datafile to grow to 30 megabytes or more. Files of this size are very difficult to manipulate and can be prohibitively slow to load and save. Therefore, it may become necessary to decide what information should be kept verbatim, what should be deleted altogether, and what can be replaced with a smaller reference code (e.g., if many participants quote message 112, you might replace each reposting of this message with the code "msg112"; advertisements might be indicated by the code "banner ad" or a hyperlink to the ad on the original site). These methods of abridging the record can be implemented before engaging in extensive analysis, so that the file that you work with most often is the smallest one.

In deciding on these matters, you should be guided by your research questions and you should preserve all information that is relevant to your questions; thus, advertising may be a central issue, or it may play a relatively small role. In any case, it is best to err on the side of preserving too much information. Once removed, a hyperlink, graphic, or reposted message can be difficult to recover. Start by keeping as much information as possible, and pare it down as you find elements that seriously interfere with speed, or that are adding nothing to your analysis. You may want to keep multiple versions, using the most streamlined for your analysis, and archiving richer versions in case they are needed later on.

Coding, Analysis, and Interpretation

The structure of an online exchange can be difficult to reconstruct, and its boundaries can be difficult to locate. Capturing the perspective of participants, challenging in any context or medium, is further complicated by new ambiguities created by the way in which conversations are created, stored, and accessed. While it may not be possible to resolve all inconsistencies and ambiguities, being aware of them and their implications for any particular interpretation is essential.

Reconstructing the Conversation

One significant difference between online and f2f conversations is that participants often view online conversations differently. Online discussions do not necessarily develop sequentially, nor can we be sure that all participants are seeing the same exchange. We can see this by comparing how listservs and bulletin boards are visited and revisited. A listserv sends messages to the subscriber's email account. Listservs send all messages in chronological order, regardless of the conversational thread to which they belong, so multiple conversations are interleaved. It is easy to miss a post, and each person may read a different set of messages. If you join a listserv after a conversation has begun, you will not see the beginning of the exchange. In contrast, bulletin boards keep message separate by thread, and all messages are available for the life of the bulletin board, or until they are archived.

A participant may follow conversations thread by thread, read everything written by a single author, skip from one topic to the next, or otherwise deviate from the original presentation. You should consider reviewing the conversation in a variety of ways in order to understand better how participants receive and work with the information.

For example, Usenet groups often attract users who only wish to ask a single question, get an answer, and never return. In addition, while some servers provide a complete, searchable Usenet archive (http://groups.google.com/), others regularly delete files to save space, or may not provide much in the way of searchability. For these reasons, it is common for several participants to ask the same question, sometimes word for word, over and over. Understanding why this happens and how the conversation develops requires looking at the records both as if you are a user with access to the full record and, as if you are a user with access to a very limited record. It is virtually impossible to capture all possible viewings, but you will probably want to capture several.

Tracking a conversation, regardless of the perspective you choose, can be challenging, rather like assembling a rough-cut jigsaw puzzle. The threads of conversation are easily broken; if a participant or server changes a subject line, archiving tools cannot follow the conversation and the line of thought becomes disconnected. People use multiple accounts and identities, either because they are deliberately trying to hide their identity, or for innocent reasons, such as logging in differently from work and home. There are, however, ways to reconstruct a conversation. To track a thread, examine subject lines to see if

they correspond except for a reply indicator, look at dates of posting, or examine the text for quotes from previous messages in the thread or other references to previous postings in the thread. In the case of users, even if participants' usernames change, they may be identifiable through their email addresses, their signatures, hyperlinks to their home pages, or their writing styles and preferred themes. For example, in analyzing one Usenet group in which the topic of speed reading frequently arose, I noted that there were several usernames employed by one company; these users would respond as if they were "ordinary" individuals, rather than identifying themselves as company representatives. However, all used the same prefabricated plug for the company's product. Thus, I could use this to mark the posts as coming from related users, or perhaps the same user.

Where, What, and Who is the Conversation?

In addition, consider the context. F2f conversations consist of a relatively well-bounded exchange; the participants, location, and duration are easier to determine than they are in online discourse. Online, participants can possess multiple identities, steal another's identity, or carry on a conversation with themselves. The conversation not only crosses geographical boundaries, but may send participants to archives of prior exchanges, websites, FAQs, and other resources. As a result, the conversation may not be neatly contained by a single listserv, chat room, or other discourse environment. Even within a single environment, the conversation you are interested in may be no more than a few lines or posts tucked in among other threads, spam (mass mailings), flames (inflammatory posts), and announcements. Finally, regarding duration, online conversations may last minutes or years, and may proceed at the rate of several exchanges per minute or one exchange every few weeks or months.

Given these complexities, the best approach is to be aware that you will have to draw somewhat arbitrary boundaries around a group of participants and exchanges, letting your choice be led by your questions. If identifying participants is crucial (perhaps you suspect that warring factions are trying to discredit one another by posing as members of the other camp), then you will have to look for clues that reveal identity and consider how your interpretations are affected by the possibility of imposters. If the conversation takes place amongst a small, tightly knit group with a strong foundation of common knowledge, then shared spaces like FAQs and group websites becomes crucial, and should be included. If there have been significant changes in the political or educational climate during the course of the conversation, duration will become important, and the timeline of the exchange may need careful examination.

You will always have to draw boundaries, and there will never be one right set of boundaries to draw. The important thing is to draw them in such a way that you can explain your reasoning to others, and in a way that allows you to get rich, useful, and dependable answers to the questions that interest you.

Knowing How to Talk Online

We do not analyze f2f conversations without having some experience with f2f conversation, both at an everyday level and at the more finely honed level of a discourse expert. You should also become a participant in online communities before trying to research them, gaining both everyday and scholarly familiarity. Rather than just knowing the basics of navigation and communication, it is important to be fluent in everyday conventions and the online analogs of body language and nonverbal f2f communication. These include "emoticons" (e.g., symbols for smiling 8^), disgust 8-P, and so on), as well as conventions such as SCREAMING BY TYPING IN ALL CAPS, or including actions, such as ::hugs newbie:: or <<grins at newbie>>.

In addition, learn how to relate to participants as individuals; it is easy to fall into the trap of treating them as disembodied voices, or automatons, rather than as complete people. What are their interests online and off? Is their style of conversation friendly, combative, joking, pedantic? What topics will get an emotional reaction from them? What sorts of conversational moves will get a reaction from them (e.g., some people are offended by posts IN ALL CAPS, and will tell the poster to stop shouting)? In an extended conversation with a group, you should get to a point that you can recognize participants without relying solely on usernames.

Final Thoughts

The study of online discourse is still quite new, and there is much about the treatment and analysis of these data that has not yet been addressed. When faced with a situation for which there is no standard procedure, the best course of action is to begin with established techniques and then adapt these to the online environment. Have a rationale for any adaptations or deviations you decide to make because these will help you to establish credibility with editors and peers and will allow others to adopt, recycle, and refine your approach.

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LESSON 29:
REPORTING THE FINDINGS

Topics Covered
Consider, Target selection, Deciding, Layout, Reports, Medium

Objectives
Upon completion of this Lesson, you should be able to:

- Consider the audience
- Targeting a report
- What medium should be used for reporting
- A long written report
- Deciding the length of a written report
- A suggested report layout

Reporting the Findings
The final stage of a research project is presenting the results. When you are deciding how to report the findings, you need to make some decisions: should there be a written report, or is some other format better? How long should a report be? What should it include? What style should it use? This chapter will help with those decisions.

1. Consider the audience
If you are a good audience researcher, the audience you should think about now is the audience for the research findings: in other words, the clients. The question here is what is the best way to communicate the findings to the clients? What will they understand most readily?

Any good audience researcher will always consider the audience for the research report, and produce the report in a form that will be the most useful for the audience. The usual types of audience for a report are:

- The client organization:
  - its management
  - its general staff
- the audience that was researched - usually, the public
- funders: government, aid agencies, advertisers, etc.
- future researchers (who may be asked to repeat the research, years later)

All of these groups have slightly different needs and interests. Managers usually prefer an overview, with concise recommendations and precise numbers. The staff of a media organization usually like a fairly detailed narrative report, covering their particular area of work.

The audience also like narrative reports, but at a more general level. Funders prefer to discover that the organization is doing an excellent job, and is spending its money wisely. But they are very sensitive to being hoodwinked, specially if the report is being written within the media organization itself.

If all these groups are to be satisfied, you may have to produce several different versions of the report.

2. Targeting a Report
Survey reports are read by a variety of different people, for different purposes. I find it helpful to divide a report into sections, focusing on a particular type of reader in each section...

For Decision-makers
People who don't have time to read the whole report (or don't want to put in the effort required) will want a summary. This can be done in three parts:

- Background information: a summary of how and why the research was done. One page is usually enough.
- Summary of findings, written in plain language, with a minimum of numbers (but cross-referenced to the detailed findings).
- Recommendations arising from the survey. These can be interspersed with the summary of findings, but recommendations and findings should be clearly distinguished - for example, by beginning each recommendation with *Recommendation*.
- The longer the full report, the longer this summary should be - but if the summary has more than about 10 pages, the busy managers may not read it fully.

For Other Researchers (or Yourself, in a Year or Two)
Information on exactly how the survey was done, for anybody who might want to repeat it. This information is often included in appendixes to the main report. It includes the full questionnaire, the detailed sample design, fieldwork procedures, interviewers' instructions, data entry instructions, and recommendations for future research: how to do it better next time. If the research is analysed by computer, a list of all the computer files is also useful.

For Specialist Staff
People who work in a particular department will usually be very interested in what a research study found about their program or department, but may not have much interest in other departments. Sometimes I have prepared special short reports for program-makers with a very strong interest in the research. It may be enough to give them a computer-printed table, and show them how to interpret it.

For the Media (and the Audience)
Though some audience members will be very interested in the research findings, most will have only a casual interest. A short summary - a page or two of print, or a few minutes of a radio or TV program - is usually enough. An alternative presentation for the general public is an interview with the main researchers; this can be more interesting than a purely factual report.

3. What Medium Should be Used for Reporting?
In the past, most survey results have been presented as written reports — often 50 to 1,000 pages long. However, a survey

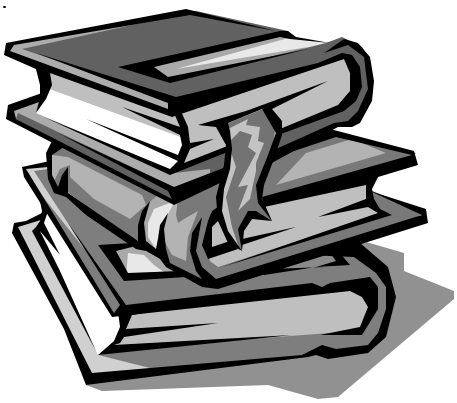
report can take many forms. If it's in writing, it can be long, short, or released (like a serial) in several stages. It can be produced as a poster, instead of a bound report. It can be a formal presentation, a course, or a workshop. It can take the form of a radio or TV program, or even a theatrical production.

Which method should you choose? Read on: the answer depends on the time and funds available, but mostly on the audiences for the report. (Perhaps presenting audience research findings needs its own audience research.) Let's consider the possibilities, each in turn.

4. A long Written Report

Surveys cost a lot of money. After spending thousands of rupees on a survey, the people who commissioned it often expect a large detailed report - because those are the only results they will see. Because of this expectation, long reports are written. Perfecting these can take weeks, specially if they have a lot of graphs. The printing and binding can take more time. By the time such a report is finished, it may no longer be needed - the information may already be out of date.

The problem with big reports is that they're so daunting: hundreds of pages, crammed with facts and figures - specially figures. Hardly anybody likes large tables of numbers - but this is what most market researchers produce, most of the time.



A typical would-be reader, when given a fat report, will immediately flick through its pages, and decide that it will take hours to absorb. But not now; he or she is too busy. So she puts it aside, and decides to go through it later. But there is always so much work to do: more reports to read, important decisions to be made, lots of meetings. So very often, the fat report is never read, in full.

And you have wasted your time in writing such a large report. (The only consolation is that, in a few years' time, when somebody else comes along to do a survey, a few parts of a large report could be very useful.)

5. A Short Report

How short is a short report? My suggestion: if a report looks short enough to read in full, as soon as a recipient gets it, then it must be short. The maximum is about half an hour's reading time, or 20 pages maximum.

A short report has no space for detailed tables of figures - but it can invite readers to consult this additional data - which could be kept in a computer file, and printed out only on demand. It's usually no extra work to produce these appendixes, because these are documents (such as the questionnaire) already created, and used when writing the short report.

6. A series of Short Reports

If a survey has too many questions for a short report, you can write several short reports. That way, the readers will get the first results more quickly. Each report could be a few pages, covering a few questions in the survey. Distribute these reports several times a week, and (as I've found) they'll be widely read by your users. Though you may have to issue some corrections or additions, the users will become much more involved with the data.

When all the short reports have been produced, you can combine them into a longer report, for reference.

7. A Preliminary Report

I don't recommend producing one long report, but sometimes clients or others insist on having one. As long reports take a long time to write, it will be weeks before the clients receive their report. By the time the final report arrives, parts of it may be outdated.

In this situation, it's advisable to produce a preliminary report, as soon as you have provisional results. Preliminary reports should not be too detailed; a few hours' work is enough. Writing a detailed preliminary report will slow down the production of the main report —and readers of the first report are likely not to bother reading a full report.

The simplest way to produce a preliminary report from survey data is to take a copy of the questionnaire, and write percentage results next to each answer choice. For questions with numerical answers, write the average on the questionnaire. Don't bother with open-ended questions in a preliminary report — these take too long to analyse. To supplement this annotated questionnaire, you could write a one-page introduction, with basic data about the survey: the method used, the exact area covered, the dates, and the sample size.

8. Deciding the length of a written report

When you are deciding whether to write a report of 1 page, 1000 pages, or something in between, here are some points to bear in mind.

- The smaller a report, the more likely it is to be read.
- The longer a report, the more time it takes to write, so the more likely it is to be out of date when it's finished.
- If a report is too short, it probably can't contain the background information which is necessary to make a decision. (And it won't have enough detail to help with the next survey.)

Usually, between 5 and 30 pages is fine. This applies to the main section of the report, and doesn't include any appendixes. These don't count — unless they make the report so thick that people won't try to read it. The more questions are asked, and the larger the sample size, the longer the report must be (and the less likely it will be read in full).

My general recommendations are:

1. If a survey has a sample less than 500, and less than 20 questions, do a short report (20 pages maximum)
2. If a survey has a sample more than 500, or more than 20 questions, do a series of short reports — one for each group of questions, produced at least once a week.
3. If you must do a long report (e.g. because a sponsor insists), precede it with a preliminary report, and follow it up with some other way of communicating the information to the clients, such as a presentation, course, or workshop.

Presentations

Live presentations, using software such as Powerpoint or Freelance, are becoming more and more popular. If computerized facilities aren't available, overhead projectors or flip charts can be used instead. Though a computer presentation looks more advanced, it doesn't provide any information that a hand-drawn chart cannot also do.

A typical presentation lasts from 30 minutes to 1 hour, has to 40 slides or overheads, and is presented by the chief researchers. After the presentation, the audience (usually a group of senior staff - often 10 to 20 people) asks questions and the presenters answer them. Audiences find it more interesting to have several presenters than one single voice.

I find the most effective type of presentation displays graphs and figures. The researchers doesn't read these aloud - the audience can see them perfectly well — but instead explain and discuss the findings, engaging in a dialogue with the audience. In these dialogue sessions, large blank sheets of paper should be available, on which one presenter writes any conclusions or requests for further analysis.

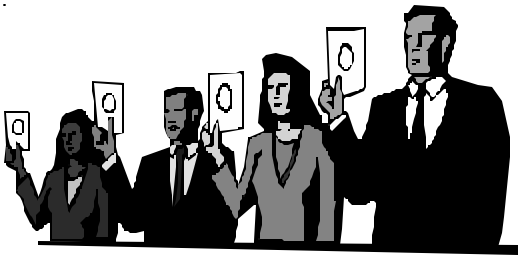
One problem with giving presentations to broadcasters and media people is that they are used to a high standard of presentation in programs, so researchers must present findings very well indeed to gain the respect of their audience. So unless you are a very experienced presenter, you should rehearse each presentation (e.g. with other researchers) before it giving it to the real audience. After each rehearsal, you usually find several ways of improving the presentation, to make it clearer and more interesting.

It's unusual for a presentation to completely replace a written report, but often the written report is shorter when a presentation is made. Handing out copies of the slides or overheads is not a substitute for a real report — too much is left unexplained. What works best in speech is not so effective in writing.

Courses

A problem with a lot of presentations is that the audience - typically the staff of the client organization - are expected to absorb all the survey findings in a short time. When a research project produces a large amount of information, and the staff need more time to understand it, it can be more effective to present the results as a course.

Workshops



A workshop presentation normally lasts between a few hours and a full day. The main difference between a workshop and a course is that a course only presents the results - it doesn't consider how to use them. A workshop will usually have decision-makers and managers as participants. The participants (usually 5 to 10 of them) not only receive the results, but also consider how the results can be used in changing the programs.

LESSON 30:
REPORTING THE FINDINGS - THE FORM OF TV PROGRAMS

Topics Covered
Consider, Target selection, Deciding, Layout, Reports, Medium

Objectives
Upon completion of this Lesson, you should be able to:

- Consider the audience
- Targeting a report
- What medium should be used for reporting
- A long written report
- Deciding the length of a written report
- A suggested report layout

Reports in the Form of TV Programs
Video presentations are also possible. These can be a mixture of interview and slide presentations, perhaps with some shots of the research interviewing and analysis.

The effort of producing such a program shouldn't be seen as wasteful. If you are dealing with TV people, and need to convince them of the results of the survey, video is the format that they are most comfortable with, and will respond to best. Because figures and graphs can be shown in a video, there may be no need for a supplementary written report.

Video "reports" can be surprisingly effective. I was told that the managers never bothered to read written reports. As the research was qualitative, using focus groups, we videotaped all the focus group proceedings, and produced a videotape of edited highlights from the groups, showing the most common findings in the research participants' own words. This conveyed the survey results very clearly. It would have been better still if we'd been able to add still shots of graphs, and written summaries and introductions.

Which is the Best Type of Report?
The answer to this question depends on...

- How educated and knowledgeable about audience research is the audience to the report?
- How much time will they have to absorb it?
- How many people need the results?
- How keen they are to implement the results?

If the audience (i.e. the people receiving the report) know a lot about research methods, are very interested in the results, and have plenty of time to study the results, then a full written report is best. This hardly ever happens, so instead of a long report, I recommend a short report (for a short, simple survey) or a series of short reports (for a more complex survey).

If the audience is inexperienced with the results of audience research, and has plenty of time, a course is often best.

If the audience includes a wide variety of people with a wide variety of interest levels (e.g. the staff of a TV station) the poster method often works well.

If the audience is poorly informed, and not particularly interested, a video or puppet-theatre report may be best.

If the research is done for a radio station whose staff prefer to communicate by sound rather than in writing, a spoken presentation or taped report can be best.

If a number of decisions need to be made, and the clients are genuinely looking for research advice but aren't sure how to interpret it, a course or workshop is often the best solution.

Reports In Detail

A suggested Report Layout
An effective report will address each of the research issues in turn, discussing the factors related to that issue, and introducing the research data as evidence on the issue.

A less effective (but more common) way to present reports is to give the results from each survey question, in the order that the questions were asked.

Sometimes, the two approaches produce very similar reports. The main difference is that issue-by-issue reports approach each issue from the point of view of a manager who must make a decision about something. The question-by-question reports are more like a catalogue of miscellaneous findings, often not relating each question to the actions that can be taken from its results.

A common layout for a written report is:

Part 1: Introduction

- Contents (1 or 2 pages)
- Introduction, perhaps by an important person
- Summary of how the survey was done (1-2 pages)
- Summary of main conclusions (1-3 pages)
- Recommendations about the findings (1-2 pages)
- (or conclusions and recommendations combined)

Part 2: Detailed Findings
...for each main internal question:

- Describing the internal question (1 page)
- For each survey question dealing with that internal question: 1-2 pages
- Conclusions about the internal question (1 page)

Part 3: Appendix

- Summary of sample design (1-2 pages)
- Details of the survey methods used (1-2 pages)
- Copy of the questionnaire - preferably as filled in by a real respondent - but excluding or changing details which might identify that person.
- Text of open-ended comments (2-10 pages, if present)

- Recommendations on survey methods -for next time (1 page)
- How to contact people who worked on the survey (1 page)

Each of the three parts is intended for a different audience.

- Part 1 is mainly for people who don't have time to read all the detail in the rest of the report, or who aren't interested in it.
- Part 2 is mainly for staff in the organization the survey covered.
- Part 3 is mainly for other researchers. (The detail is particularly useful when a follow-up survey is done, perhaps years later.)

Many market research reports include an enormous set of tables in the appendix: often hundreds of pages. I don't agree with this: if the tables are important, they should be discussed with the main part of the report. If numbers aren't important, there's no need to include them in the report, because nobody will read them. If they are presented without explanation, probably no readers will understand them fully. Maybe it's best to print off a few copies of the tables, show them only to people who ask, and keep each copy in a safe, separate place — because next time a survey is done, the tables could be very useful.

How to Write up Detailed Findings (Part 2 of a Report)

For each issue: state what needs to be decided — the internal question.

List the survey questions which were chosen to give evidence on the internal question.

For each survey question:

1. Give the full wording of the question — showing whether the answers were prompted or open-ended.
2. State who was asked the question. (All respondents? Only some?)
3. Give a table and/or graph of results.

4a. If the question was a nominal one, list each possible answer and the percentage who gave that answer.
   - If the question allowed one answer, show that the total of all answers was 100%
   - If the question allowed more than one answer, say so.
   - State the number of respondents corresponding to 100%

4b. If the question asked for a numerical answer, and there were more than about 10 possible answers, don't show the number who gave each separate answer. Instead show
   - The minimum answer
   - The maximum answer
   - The average

   Also show a distribution of answers. You could include a line graph, or mention the upper and lower quartiles (the answers given by the lowest 25% and the highest 25% of those answering)

5. Summarize the results in a few sentences. Focus on the meaning, rather than repeating the numbers shown in the table.
6. If the sample size is large enough (i.e. at least 200 people answered the question) *and* there are significant differences between subgroups, describe these — perhaps in a table

#EG literacy by age/sex - Annotated examples

How to Present the Findings: as Words, Numbers, or Graphs?

Written reports usually have three main elements: words, numbers, and graphs. A lot of report research reports emphasize one of these, and pay little attention to the other two. Many research reports are mostly tables of numbers, with only a few pages of written explanation and no graphs.

I've found that readers of audience research reports usually have a clear preference for one type of presentation - based on their training and their work: journalists usually prefer words, accountants prefer numbers, and TV producers prefer graphs. Managers vary, depending on their training and background.

A successful report should balance all three of these components, giving similar information in various ways - but without exact repetition. This makes it easier for readers to understand.

Explaining the results in words

Written reports

A lot of research reports are written in this style:

74.3% of respondents agreed that the Dainik Bhaskar had too many crossword puzzles, while 59.6% agreed that it had insufficient coverage of local news. 69.4% of women and 49% of men said that the Dainik Bhaskar had too little local news, as did 43.1% of those aged 15 to 24, 57.8% of those in the 25-44 age group, and 65.5% of those aged 45 and over.

This is very precise writing, but also difficult to understand. The reader must go over it several times, to work out exactly what it means. Bearing in mind the imprecision of surveys, there's no point in giving results to the nearest 0.1% - the nearest 1% is quite enough.

Here's a simplified version of the above passage, laid out for better readability.

Readers of the Dainik Bhaskar were asked "What do you think the Dainik Bhaskar has too much of, or too little of?"
Too much of...

- Crossword puzzles 74%

Too little of:

- Local news 60%

What sort of people thought the Dainik Bhaskar had too little local news?

- 69% of women
- 49% of men
- 43% of people aged 15 to 24
- 58% of people aged 25 to 44
- 66% of people aged 45 and over.

Spoken Reports

If a report is in writing, the above format makes it clearer; but if a report is spoken (e.g. as a radio program or a talk) listeners don't get a chance to hear it again. In this case, it's even more important to make sure the result is easily understood on first hearing. Here's an example of wording which is difficult to understand when heard:

26% of people said they were happy with FM99's service, while 347% said they were reasonably happy, and 31% said they weren't happy at all. The other 6% couldn't decide.

This is almost incomprehensible, on first hearing. Presenting the same information in a less precise (and slightly more repetitive) way actually makes it easier to understand:

When asked how happy they were with FM99's service, listeners were divided into three groups, with about equal numbers in each. One third were very happy with FM99's service, one third were reasonably happy, and the other third weren't happy at all.

Bearing in mind the sampling error on most surveys, describing 26% as "one third" and not mentioning the 6% who couldn't decide is not misleading.

Explaining the Results in Numbers

Here are some principles for presenting numbers in research reports. All of these help to communicate the findings, and make it easier for readers to understand the data correctly.

- Always include the full wording of a question near the distribution of answers
- For every percentage: state what it is a percentage *of*. (The whole sample? Some sub-group?)
- If a table is not based on the whole sample, but a sub-group, say so. Show the number of respondents which corresponds to 100%.
- If a set of percentages adds to 100% horizontally or vertically, include a column or row to show this.
- For questions which can have more than one answer, in which percentages can add to more than 100% of people (but always add to 100% of answers to the question), show whether the percentage is based on people or answers. If the percentage is based on people, include a note such as "Percentages add to more than 100% because some people gave more than one answer." If the percentage is based on answers, say so.
- In complex tables, give a verbal example of how to read the first figure (i.e. top left) - e.g. "i.e. 74.3% of all respondents said the *Dainik Bhaskar* had too many crossword puzzles."
- You can make large tables easier to interpret by circling any figures which are particularly significant: e.g. the largest or smallest in a row or column, or any figure discussed in the text.
- In two-way tables (one variable in each row of numbers, and another in each column) show whether percentages are based on the row total, the column total, the grand total, or some other base.
- Readers are confused by percentages on varying bases, so if the survey was a random one, consider showing projections instead of percentages. For example, if the population covered was 50,000, a table could show a figure of 25,000 instead of 50%. (But for this to be valid, everybody in the population must have had an equal chance of being included -and you must know the population size.)
- As questions using aided recall (e.g. "Have you heard of FM99?") mostly produce higher figures than questions with unaided recall ("Which radio stations have you heard of?") always state whether respondents simply had to say Yes to a suggested response, or had to think of an answer themselves. But this is not necessary when everybody would be expected to know all possible answers - e.g. "What is your age?"

Presenting Data in Graphs

There are many different types of graph or chart, but most are not used in audience research. Those used most often include:

- Pie charts
- Vertical bar charts (histograms)
- Horizontal bar charts (also histograms)
- Pictograms
- Line charts
- Area charts

Though many different kinds of graph are possible, if a report includes too many types, it's often confusing for readers, who must work out how to interpret each new type of graph, and why it is different from an earlier one. I recommend using as few types of graph as are necessary.

If you have a spreadsheet or graphics program, such as Excel it's very easy to produce graphs. You simply enter the numbers and labels in a table, click a symbol to show which type of graph you want, and it appears before your eyes. These graphs are usually not very clear when first produced, but the software has many options for changing headings, scales, and graph layout. You can waste a lot of time perfecting these graphs. Excel (actually, Microsoft Graph, which Excel uses) has dozens of options, and it takes a lot of clicking of the right-hand mouse button to discover them all. If you don't have a recent and powerful computer, this can be a very slow and frustrating program to use.

The main types of graph include pie charts, bar charts (histograms), line charts, area charts, and several others.

Pie Chart

A round graph, cut (like a pie) into slices of varying size, all adding to 100%. Because a pie chart is round, it's useful for communicating data which takes a "round" form: for example, the answers to "How many minutes in each hour would you like FM99 to spend on news, music, and other spoken programs?" In this case, the pie corresponds to a clock face, and the slices can be interpreted as fractions of an hour.

Pie charts are easily understood when the slices are similar in size, but if several slices are less than 5%, it can be quite difficult to read a pie chart. In that case the chart has to be very big, taking perhaps half a page to convey one set of numbers. Not a very efficient way to display information.

#PIE CHART

Vertical Bar Chart

Also known as a histogram. A very common type of graph, easily understood. But when one of these charts has more than about 6 vertical bars, there's very little space below each bar to explain what it's measuring.

#V. BAR CHART

Horizontal Bar Chart

Exactly like a vertical bar chart, but turned sideways. The big advantage of the horizontal bar chart is that you can easily read a description with more than one word. Unfortunately, most graphics software displays the bars upside down - you're expected to read from the bottom, upwards to the top.

However, you don't need graphics software to produce a horizontal bar chart: you can do it easily with a word processing program. One of the easiest ways to do this is to use the | symbol to produce the bars. This symbol is usually found on the \ key; it is not a lower-case L or upper-case I or number 1. It stands out best in bold type. For example:

Q14. SEX OF RESPONDENT		
Male	47.4%	|||||||||||||||||||||
Female	52.6%	||||||||||||||||||||||||
Total	100.0%	= 325 cases

If each symbol represents 2% of the sample, you can usually fit the graph on a single line. Round each figure to the nearest 2% to work out how many times to press the symbol key. In the above example, 47.4% is closer to 48% than to 46%, so I pressed the | key 24 times to graph the percentage of men. This is a very clear layout, and quick to produce, so it is well suited to a preliminary report.

A more elaborate looking graph can be made by using special symbols. For example, if you have the font Wingdings, you can use the shaded-box symbol: q

This is wider than the | symbol, and no more than about 20 will fit on a normal-width line, if half the line is taken up with the description and the percentage. Therefore, one q should be equivalent to 5%:

Q14. SEX OF RESPONDENT		
Male	47.4%	qqqqqqqqq
Female	52.6%	qqqqqqqqqqq
Total	100.0%	= 325 cases

Pictogram

Like a bar chart, a pictogram can be either vertical or horizontal, but instead of showing a solid bar, a pictogram shows a number of symbols - e.g. small diagrams of people. In fact, the above bar chart with the q symbol is a crude type of pictogram. But unlike a bar chart made of entire qsymbols, a pictogram shows partial symbols. If one little man means 4%, and the figure to be graphed is 5%, you see one and a quarter little men.

#PICTOGRAM

Domino Chart

You won't find this mentioned in books on statistics, because I made it up. It was an invention that seemed to be required, and is best described as a two-dimensional pictogram. It's named after the game of dominos, in which each piece has a number of round blobs in a rectangular block.

Just as you use a bar chart or pictogram when graphing one nominal variable, a domino chart is used to compare two nominal variables — it's the graphical equivalent of a cross-tabulation. It is used to show the results of inquiries such as "Do more men than women listen to FM99?" In this case, the two variables are sex and listening to FM99.

Suppose 71% of respondents listen to FM99, and 52% are men. To find the sex breakdown of FM99 listeners, you need to produce a crosstab. The resulting table might look like this:

Sex	Listen to FM99?		Total
	Yes	No	
Male	40%	12%	52%
Female	31%	17%	48%
Total	71%	29%	100%

To produce the domino chart, take each percentage in the main part of the table (not counting the Total row or column), divide each figure by 4, round it to the nearest whole number, and type in that number of blobs. "Why divide by 4?" you may wonder. It's because each blob is equivalent to 4% of the people answering both questions. The figure doesn't need to be 4; it could be 5 or 2, though a 5% blob often isn't quite detailed enough, while 2% produces so many blobs that it's harder to interpret the table at a glance. Note that, with one blob equalling 4%, there should be 25 blobs in the whole table — though occasionally, due to rounding, there will be 24 or 26.

Here's a domino chart of the above table:

Sex	Listen to FM99?	
	Yes	No
Male	••••••••	•••
Female	••••••••	••••

Though the chart has less detail than the table, most people can understand it instantly. It shows that slightly more men than women listen to FM99.

Domino charts are specially useful when you have a group of tables., and you want to compare the answers. A lot of domino charts can fit onto a single page. The readers' eyes will be drawn to the cells with the largest and smallest numbers of blobs.

This is a very simple graph: easily understood, and easily produced. Though graphics software doesn't do domino charts (yet) you can create a domino graph with the blob symbol in a word-processing program.

Line Chart

This is used when the variable you are graphing is a numeric one. In audience research, most variables are nominal, not numeric, so line charts aren't needed much. But to plot the answers to a question such as "How many people live in your household?" you could produce a graph like this:

#LINE CHART

It's normal to show the measurement (e.g. percentage) upwards, and the scale (e.g. hours per week) on the horizontal scale. Unlike a bar chart, it will confuse people if the scales are exchanged. You'll find that almost every line chart has a peak in the middle, and falls off to each side, reflecting what's known as the "normal curve."

A line chart is really another form of a vertical bar chart. You could turn a vertical bar chart into a line chart by drawing a line connecting the top of each bar, then deleting the bars.

A line chart can have more than one line. For example, you could have a line chart comparing the number of hours per week that men and women watch TV. There'd be two lines, one for each sex. Each line needs to be shown with a different style, or a different colour. With more than 3 or 4 lines, a line chart becomes very confusing, specially when the lines cross each other.

Area Chart

In a line chart with several lines - such as the above example, with two sexes - each line starts from the bottom of the table. That way, you can compare the height of the lines at any point. An area chart is a little different, in that each line starts from the line below it. So you don't compare the height of the lines, but the areas between them. These areas always add to 100% high. You can think of an area chart as a lot of pie charts, flattened out and laid end-to-end.

A common use of area charts in audience research is to show how people's behaviour changes across the 24 hours of the day. The horizontal scale runs from midnight to midnight, and the vertical scale from 0 to 100%. This area chart, taken from a survey in Vietnam, shows how people divide their day into sleep, work, watching TV, listening to radio, and everything else.

#AREA CHART

An area chart needs to be studied closely: the results aren't obvious at a glance. However, area charts provide a lot of information in a small space.

Information About the Survey

Enough information needs to be supplied to enable informed readers to judge the likely accuracy of the results. Therefore, you need to include this type of information about how the research was done:

- The research technique (survey, focus groups, observation, etc.).
- The delivery mode (by telephone, by mail, etc).
- The population surveyed.
- Where the research was done (The whole country? One region? One city?)
- When the fieldwork was done: the exact dates, if possible.
- The number of respondents interviewed.
- The organization that did the research.
- The organization (if any) that was identified as commissioning the research.
- The response rate.
- The types of people who did the interviewing or fieldwork.
- Whether the information reported here was a full research project on its own, or whether it formed a part of another research project.
- Any other factor which may have influenced the results.
- Likely sampling error on a figure of 50%, at the 68% level of confidence.

The above list is a long one, and the background data about a research project can fill many pages if you include a lot of detail. However it's possible to include most of this information in one paragraph — for example:

"This information comes from a telephone survey, with interviews from 1050 people aged 18 and over living in the Adelaide region. The research was done between 5 and 19 May 2000 by Audience Dialogue, using their trained interviewers. The response rate was 77%. The survey was commissioned by radio FM99, but respondents were not told this. It's possible that the results were influenced by FM101, which reported on 17 May that the survey was taking place, and urged respondents to say that they only listened to FM101. Because only a sample of the population was included, figures in this survey are likely to vary from the true population figures by about 1.5% on average."

That explanation provides the information that well-informed readers need, to judge the likely accuracy of the survey.

Should a Report Include Recommendations?

One area of argument is whether a research report should include recommendations. The survey analyst, after spending weeks with the data, understands it better than anybody else ever will, and is in a good position to recommend certain courses of action.

Usually, though, the analyst is not aware of all the constraints on action, so these recommendations are seen as impractical and often are not acted on. On the other hand, managers will often dismiss recommendations as impractical, simply because they have not considered them in detail.

Some researchers believe their job is only to produce the results, and that it is up to users to make any recommendations. My experience is that untrained users find it very difficult to draw recommendations from research data, and if the researcher

doesn't make recommendations, the results of the research are often not acted on.

I've found that recommendations are best made not by the researcher or users alone, but by both groups working together. Soon after a survey report has been sent out, arrange a workshop session in which the implications of the survey can be discussed, and recommendations formed, or decisions made. This sort of workshop lasts from a few hours to a whole day - depending on the number of questions in the survey, and how much disagreement is expressed.

Assignments

1. Report writing is more an art that hinges upon practice and experience. Explain?

LESSON 31:
COPYRIGHT ACT- 1957

Topics Covered

Titles, Interpretations, Meaning, Reproduce, Copy, Rights

Objectives

Upon completion of this Lesson, you should be able to:

- Short title, extent and commencement of Copyright act
- Interpretation of the content
- Meaning of publication
- Works in which copyright subsists
- Understanding Right of author
- License to reproduce and publish works for certain purposes

Copy Right

1. Short Title, Extent and Commencement

1. This Act may be called the Copyright Act, 1957.
2. It extends to the whole of India.
3. It shall come into force on such date[1] as the Central Government may, by notification in the Official Gazette, appoint.

2. Interpretation

In this Act, unless the context otherwise requires,-

a. "adaptation" means,-

i. in relation to a dramatic work, the conversion of the work into a non-dramatic work;

ii. in relation to a literary work or an artistic work, the conversion of the work into a dramatic work by way of performance in public or otherwise;

iii. in relation to a literary or dramatic work, any abridgement of the work or any version of the work in which the story or action is conveyed wholly or mainly by means of pictures in a form suitable for reproduction in a book, or in a newspaper, magazine or similar periodical; [2][* * *]

iv. in relation to a musical work, any arrangement or transcription of the work; [3][and

v. in relation to any work, any use of such work involving its re-arrangement or alteration;]

b. [4]["work of architecture"] means any building or structure having an artistic character or design, or any model for such building or structure;

c. "artistic work" means-

i. a painting, a sculpture, a drawing (including a diagram, map, chart or plan), an engraving or a photograph, whether or not any such work possesses artistic quality;

ii. a [4][work of architecture]; and

iii. any other work of artistic craftsmanship;

d. "author" means-

i. in relation to a literary or dramatic work, the author of the work;

ii. in relation to a musical work, the composer;

iii. in relation to an artistic work other than a photograph, the artist;

iv. in relation to a photograph, the person taking the photograph;

v. [4][in relation to a cinematograph film or sound recording, the producer; and

vi. in relation to any literary, dramatic, musical or artistic work which is computer-generated, the person who causes the work to be created;]

[5][(dd) "broadcast" means communication to the public-

i. by any means of wireless diffusion, whether in any one or more of the forms of signs, sounds or visual images; or

ii. by wire, and includes a re-broadcast;]

e. "calendar year" means the year commencing on the lst day of January;

[4][(f) "cinematograph film" means any work of visual recording on any medium produced through a process from which a moving image may be produced by any means and, includes a sound recording accompanying such visual recording and "cinematograph" shall be construed as including any work produced by any process analogous to cinematography including video films;]

[4][(ff) "communication to the public" means making any work available for being seen or heard or otherwise enjoyed by the public directly or by any means of display or diffusion other than by issuing copies of such work regardless of whether any member of the public actually sees, hears or otherwise enjoys the work so made available.

Explanation : For the purposes of this clause, communication through satellite or cable or any other means of simultaneous communication to more than one household or place of residence including residential rooms of any hotel or hostel shall be deemed to be communication to the public;

ffa. "composer", in relation to a musical work, means the person who composes the music regardless of whether he records it in any form of graphical notation;

ffb. "computer" includes any electronic or similar device having information processing capabilities;

ffc. "computer programme" means a set of instructions expressed in words, codes, schemes or in any other form, including a machine readable medium, capable of causing a computer to perform a particular task or achieve a particular result;

ffd. “copyright society” means a society registered under sub-section (3) of section 33;]

g. “delivery”, in relation to a lecture, includes delivery by means of any mechanical instrument or by [6][broadcast];

h. “dramatic work” includes any piece for recitation, choreographic work or entertainment in dumb show, the scenic arrangement or acting, form of which is fixed in writing or otherwise but does not include a cinematograph film;

[7](hh)”duplicating equipment” means any mechanical contrivance or device used or intended to be used for making copies of any work;]

i. “engravings” include etchings, lithographs, wood-cuts, prints and other similar works, not being photographs;

j. “exclusive licence” means a licence which confers on the licensee or on the licencees and persons authorised by him, to the exclusion of all other persons (including the owner of the copyright), any right comprised in the copyright in a work, and “exclusive licensee” shall be construed accordingly;

k. “government work” means a work which is made or published by or under the direction or control of-

i. the government or any department of the government;

ii. any Legislature in India;

iii. any court, Tribunal or other judicial authority in India;

[8][(l) “Indian work” means a literary, dramatic or musical work,-

i. the author of which is a citizen of India; or

ii. which is first published in India; or

iii. the author of which, in the case of an unpublished work, is, at the time of the making of the work, a citizen of India;]

[4][(m) “infringing copy” means,-

i. in relation to literary, dramatic, musical or artistic work, a reproduction thereof otherwise than in the form of a cinematographic film;

ii. in relation to a cinematographic film, a copy of the film made on any medium by any means;

iii. in relation to a sound recording, any other recording embodying the same sound recording, made by any means;

iv. in relation to a programme or performance in which such a broadcast, reproduction right or a performer’s right subsists under the provisions of this Act, the sound recording or a cinematographic film of such programme or performance,

if such reproduction, copy of sound recording is made or imported in contravention of the provisions of this Act.]

n. “lecture” includes address, speech and sermon;

[4][(o) “literary work” includes computer programmes, tables and compilations including computer [9][databases];

p. “musical work” means a work consisting of music and includes any graphical notation of such work but does not include any works or any action intended to be sung, spoken or performed with the music;

q. “performance”, in relation to performer’s right, means any visual or acoustic presentation made live by one or more performers;]

[3][(qq) “performer” includes an actor, singer, musician, dancer, acrobat, juggler, conjurer, snake charmer, a person delivering a lecture or any other person who makes a performance;]

r. [2][* * *]

s. “photograph” includes photo-lithograph and any work produced by any process analogous to photography but does not include any part of a cinema to graph film;

t. “plate” includes any stereotype or other plate, stone, block, mould, matrix, transfer, negative, [7][, duplicating equipment] or other device used or intended to be used for printing or reproducing copies of any work, and any matrix or other appliance by which [10][sound recording] for the acoustic presentation of the work are or are intended to be made;

u. “prescribed” means prescribed by rules made under this Act;

[3][(uu) “producer”, in relation to a cinematograph film or sound recording, means a person who takes the initiative and responsibility for making the work;]

[4][(x) “reprography” means the making of copies of a work, by photocopying or similar means;

xx. “sound recording” means a recording of sounds from which such sounds may be produced regardless of the medium on which such recording is made or the method by which the sounds are produced;]

y. “work” means any of the following works, namely,-

i. a literary, dramatic, musical or artistic work;

ii. a cinematograph film;

iii. a [10][sound recording];

z. “work of joint authorship” means a work produced by the collaboration of two or more authors in which the contribution of one author is not distinct from the contribution of the other author or authors;

za.“work of sculpture” includes casts and models.

[4][3. Meaning of publication

For the purposes of this Act, “publication” means making a work available to the public by issue of copies or by communicating the work to the public.]

4. When Work not Deemed to be Published or Performed in Public

Except in relation to infringement of copyright, a work shall not be deemed to be published or performed in public, if published or performed in public, without the licence of the owner of the copyright.

5. When Work Deemed to be First Published in India

For the purposes of this Act, a work published in India shall be deemed to be first published in India, notwithstanding that it has been published simultaneously in some other country, unless such other country provides a shorter term of copyright for such work; and a work shall be deemed to be published simultaneously in India and in another country if the time between the publication in India and the publication in such

other country does not exceed thirty days or such other period as the Central Government may, in relation to any specified country, determine.

7. Nationality of Author where the Making of Unpublished Work is Extended Over Considerable Period

Where, in the case of an unpublished work, the making of the work is extended over a considerable period, the author of the work shall, for the purposes of this Act, be deemed to be a citizen of, or domiciled in, that country of which he was a citizen or wherein he was domiciled during any substantial part of that period.

13. Works in which Copyright Subsists

1. Subject to the provisions of this section and the other provisions of this Act, copyright shall subsist throughout India in the following classes of works, that is to say,-
   a. original literary, dramatic, musical and artistic works;
   b. cinematograph films; and
   c. [10][sound recording].
2. Copyright shall not subsist in any work specified in sub-section (1), other than a work to which the provisions of section 40 or section 41 apply, unless,-
   i. in the case of a published work, the work is first published in India, or where the work is first published outside India, the author is at the date of such publication, or in a case where the author was dead at that date, was at the time of his death, a citizen of India;
   ii. in the case of an unpublished work other than [12][work of architecture], the author is at the date of the making of the work a citizen of India or domiciled in India; and
   iii. in the case of a [12][work of architecture], the work is located in India.

Explanation : In the case of a work of joint authorship, the conditions conferring copyright specified in this sub-section shall be satisfied by all the authors of the work.

3. Copyright shall not subsist-
   a. in any cinematograph film if a substantial part of the film is an infringement of the copyright in any other work;
   b. in any [10][sound recording] made in respect of a literary, dramatic or musical work, if in making the [10][sound recording], copyright in such work has been infringed.
4. The copyright in a cinematograph film or a [10][sound recording] shall not affect the separate copyright in any work in respect of which or a substantial part of which, the film, or as the case may be, the [10][sound recording] is made.
5. In the case of a [4][work of architecture], copyright shall subsist only in the artistic character and design and shall not extend to processes or methods of construction.

[4][14. Meaning of copyright

For the purposes of this Act, "copyright" means the exclusive right subject to the provisions of this Act, to do or authorise the doing of any of the following acts in respect of a work or any substantial part thereof, namely,-

a. in the case of a literary, dramatic or musical work, not being a computer programme,-

i. to reproduce the work in any material form including the storing of it in any medium by electronic means;

ii. to issue copies of the work to the public not being copies already in circulation;

iii. to perform the work in public, or communicate it to the public;

iv. to make any cinematograph film or sound recording in respect of the work;

v. to make any translation of the work;

vi. to make any adaptation of the work;

vii. to do, in relation to a translation or an adaptation of the work, any of the acts specified in relation to the work in sub-clauses (i) to (vi);

b. in the case of a computer programme,-

i. to do any of the acts specified in clause (a);

[14][(ii) to sell or give on commercial rental or offer for sale or for commercial rental any copy of the computer programme:

PROVIDED that such commercial rental does not apply in respect of computer programmes where the programme itself is not the essential object of the rental.]

c. in the case of an artistic work,-
   i. to reproduce the work in any material form including depiction in three dimensions of a two dimensional work or in two dimensions of a three dimensional work;
   ii. to communicate the work to the public;
   iii. to issue copies of the work to the public not being copies already in circulation;
   iv. to include the work in any cinematograph film;
   v. to make any adaptation of the work;
   vi. to do in relation to an adaptation of the work any of the acts specified in relation to the work in sub-clauses (i) to (iv);

d. in the case of a cinematograph film,-
   i. to make a copy of the film, including a photograph of any image forming part thereof;
   ii. to sell or give on hire or offer for sale or hire, any copy of the film, regardless of whether such copy has been sold or given on hire on earlier occasions;
   iii. to communicate the film to the public;

e. in the case of a sound recording-

i. to make any other sound recording embodying it;

ii. to sell or give on hire, or offer for sale or hire, any copy of the sound recording regardless of whether such copy has been sold or given on hire on earlier occasions;

iii. to communicate the sound recording to the public.

Explanation: For the purposes of this section, a copy which has been sold once shall be deemed to be a copy already in circulation.]

16. No copyright except as provided in this Act

No person shall be entitled to copyright or any similar right in any work, whether published or unpublished, otherwise than under and in accordance with the provisions of this Act or of any other law for the time being in force, but nothing in this section shall be construed as abrogating any right or jurisdiction to restrain a breach of trust or confidence.

First Owner of Copyright

Subject to the provisions of this Act, the author of a work shall be the first owner of the copyright therein:

PROVIDED that-

a. in the case of a literary, dramatic or artistic work made by the author in the course of his employment by the proprietor of a newspaper, magazine or similar periodical under a contract of service or apprenticeship, for the purpose of publication in a newspaper, magazine or similar periodical, the said proprietor shall, in the absence of any agreement to the contrary, be the first owner of the copyright in the work insofar as the copyright relates to the publication of the work in any newspaper, magazine or similar periodical, or to the reproduction of the work for the purpose of its being so published, but in all other respects the author shall be the first owner of the copyright in the work;

b. subject to the provisions of clause (a), in the case of a photograph taken, or a painting or portrait drawn, or an engraving or a cinematograph film made, for valuable consideration at the instance of any person, such person shall, in the absence of any agreement to the contrary, be the first owner of the copyright therein;

c. in the case of a work made in the course of the author's employment under a contract of service or apprenticeship, to which clause (a) or clause (b) does not apply, the employer shall, in the absence of any agreement to the contrary, be the first owner of the copyright therein;

[5][(cc) in the case of any address or speech delivered in public, the person who has delivered, such address or speech or if such person has delivered such address or speech on behalf of any other person, such other person shall be the first owner of the copyright therein notwithstanding that the person who delivers such address or speech, or, as the case may be, the person on whose behalf such address or speech is delivered, is employed by any other person who arranges such address or speech or on whose behalf or premises such address or speech is delivered;]

d. in the case of a government work, government shall, in the absence of any agreement to the contrary, be the first owner of the copyright therein;

[5][(dd) in the case of a work made or first published by or under the direction or control of any public undertaking, such public undertaking shall, in the absence of any agreement to the contrary, be the first owner of the copyright therein.

Explanation: For the purposes of this clause and section 28A, "public undertaking" means-

i. an undertaking owned or controlled by government; or

ii. a government company as defined in section 617 of the Companies Act, 1956 (1 of 1956); or

iii. a body corporate established by or under any Central, Provincial or State Act;]

e. in the case of a work to which the provisions of section 41 apply, the international organisation concerned shall be the first owner of the copyright therein.

Right of Author to Relinquish Copyright

1. The author of a work may relinquish all or any of the rights comprised in the copyright in the work by giving notice in the prescribed form to the Registrar of Copyrights and thereupon such rights shall, subject to the provisions of sub-section (3), cease to exist from the date of the notice.
2. On receipt of a notice under sub-section (1), the Registrar of Copyrights shall cause it to be published in the Official Gazette and in such other manner as he may deem fit.
3. The relinquishment of all or any of the rights comprised in the copyright in a work shall not affect any rights subsisting in favour of any person on the date of the notice referred to in sub-section (1).

Term of Copyright

Term of copyright in published literary, dramatic, musical and artistic works

Except as otherwise hereinafter provided, copyright shall subsist in any literary, dramatic, musical or artistic work (other than a photograph) published within the lifetime of the author until [17][sixty] years from the beginning of the calendar year next following the year in which the author dies.

Explanation : In this section the reference to the author shall, in the case of a work of joint authorship, be construed as a reference to the author who dies last.

Term of copyright in anonymous and pseudonymous works

1. In the case of a literary, dramatic, musical or artistic work (other than a photograph), which is published anonymously or pseudonymously, copyright shall subsist until [17][sixty] years from the beginning of the calendar year next following the year in which the work is first published:

   PROVIDED that where the identity of the author is disclosed before the expiry of the said period, copyright shall subsist until [17][sixty] years from the beginning of the calendar year next following the year in which the author dies.

2. In sub-section (1), references to the author shall, in the case of an anonymous work of joint authorship, be construed,-

   a. where the identity of one of the authors is disclosed, as references to that author;

b. where the identity of more authors than one is disclosed, as references to the author who dies last from amongst such authors.

3. In sub-section (1), references to the author shall, in the case of a pseudonymous work of joint authorship, be construed,-

a. where the names of one or more (but not all) of the authors are pseudonymous and his or their identity is not disclosed, as references to the author whose name is not a pseudonym, or, if the names of two or more of the authors are not pseudonyms, as references to such of those authors who dies last;

b. where the names of one or more (but not all) of the authors are pseudonyms and the identity of one or more of them is disclosed, as references to the author who dies last from amongst the authors whose names are not pseudonyms and the authors whose names are pseudonyms and are disclosed; and

c. where the names of all the authors are pseudonyms and the identity of one of them is disclosed, as references to the author whose identity is disclosed or if the identity of two or more of such authors is disclosed, as references to such of those authors who dies last.

Explanation : For the purposes of this section, the identity of an author shall be deemed to have been disclosed, if either the identity of the author is disclosed publicly by both the author and the publisher or is otherwise established to the satisfaction of the Copyright Board by that author.

Term of Copyright in Posthumous Work

1. In the case of a literary, dramatic or musical work or an engraving, in which copyright subsists at the date of the death of the author or, in the case of any such work of joint authorship, at or immediately before the date of the death of the author who dies last, but which, or any adaptation of which, has not been published before that date, copyright shall subsist until [17][sixty] years from the beginning of the calendar year next following the year in which the work is first published or, where an adaptation of the work is published in any earlier year, from the beginning of the calendar year next following that year.

2. For the purposes of this section a literary, dramatic or musical work or an adaptation of any such work shall be deemed to have been published, if it has been performed in public or if any [10][sound recording] made in respect of the work have been sold to the public or have been offered for sale to the public.

Term of Copyright in Photographs

In the case of a photograph, copyright shall subsist until [17][sixty] years from the beginning of the calendar year next following the year in which the photograph is published.

Term of Copyright in Cinematograph Films

In the case of cinematograph film, copyright shall subsist until [17][sixty] years from the beginning of the calendar year next following the year in which the film is published.

Term of Copyright in [10][sound recording]

In the case of a [10][sound recording], copyright shall subsist until [17][sixty] years from the beginning of the calendar year next following the year in which the [10][sound recording] is published.

Licence to Produce and Publish Translations

1. Any person may apply to the Copyright Board for a licence to produce and publish a translation of a literary or dramatic work in any language [5][after a period of seven years from the first publication of the work.]

   [5][(1A) Not with standing anything contained in sub-section (1), any person may apply to the Copyright Board for a licence to produce and publish a translation, in printed or analogous forms of reproduction, of a literary or dramatic work, other than an Indian work, in any language in general use in India after a period of three years from the first publication of such work, if such translation is required for the purposes of teaching, scholarship or research:

   PROVIDED that where such translation is in a language not in general use in any developed country, such application may be made after a period of one year from such publication.]

2. Every [18][application under this section] shall be made in such form as may be prescribed and shall state the proposed retail price of a copy of the translation of the work.

3. Every applicant for a licence under this section shall, along with his application, deposit with the Registrar of Copyrights such fee as may be prescribed.

4. Where an application is made to the Copyright Board under this section, it may, after holding such inquiry as may be prescribed, grant to the applicant a licence, not being an exclusive licence, to produce and publish a translation of the work in the language mentioned in [13][the application-

   i. subject to the condition that the applicant shall pay to the owner of the copyright in the work royalties in respect of copies of the translation of the work sold to the public, calculated at such rate as the Copyright Board may, in the circumstances of each case, determine in the prescribed manner; and

   ii. where such licence is granted on an application under sub-section (1A), subject also to the condition that the licence shall not extend to the export of copies of the translation of the work outside Indian and every copy of such translation shall contain a notice in the language of such translation that the copy is available for distribution only in India:

PROVIDED that nothing in clause (ii) shall apply to the export by government or any authority under the government of copies of such translation in a language other than English, French or Spanish to any country if-

1. such copies are sent to citizens of India residing outside India or to any association of such citizens outside India; or

2. such copies are meant to be used for purposes of teaching, scholarship or research and not for any commercial purpose; and

3. in either case, the permission for such export has been given by the government of that country:]

[19][PROVIDED FURTHER that no licence under this section] shall be granted, unless-

a. a translation of the work in the language mentioned in the application has not been published by the owner of the copyright in the work or any person authorised by him, [13][within seven years or three years or one year, as the case may be, of the first publication of the work], or if a translation has been so published, it has been out of print;

b. the applicant has proved to the satisfaction of the Copyright Board that he had requested and had been denied authorisation by the owner of the copyright to produce and publish such translation, or that [13][he was, after due diligence on his part, unable to find] the owner of the copyright;

c. where the applicant was unable to find the owner of the copyright, he had sent a copy of his request for [13][such authorisation by registered air mail post to the publisher whose name appears from the work, and in the case of an application for a licence under sub-section (1)] not less than two months before [13][such application];

[13][(cc) a period of six months in the case of an application under sub-section (1A) (not being an application under the proviso thereto), or nine months in the case of an application under the proviso to that sub-section, has elapsed from the date of making the request under clause (b) of this proviso, or where a copy of the request has been sent under clause (c) of this proviso, from the date of sending of such copy, and the translation of the work in the language mentioned in the application has not been published by the owner of the copyright in the work or any person authorised by him within the said period of six months or nine months, as the case may be;

(ccc) in the case of any application made under sub-section (1A),-

i. the name of the author and the title of the particular edition of the work proposed to be translated are printed on all the copies of the translation;

ii. if the work is composed mainly of illustrations, the provisions of section 32A are also complied with;]

d. the Copyright Board is satisfied that the applicant is competent to produce and publish a correct translation of the work and possesses the means to pay to the owner of the copyright the royalties payable to him under this section;

e. the author has not withdrawn from circulation copies of the work; and

f. an opportunity of being heard is given, wherever practicable, to the owner of the copyright in the work.

[5][(5) Any broadcasting authority may apply to the Copyright Board for a licence to produce and publish the translation of-

a. a work referred to in sub-section (1A) and published in printed or analogous forms of reproduction; or

b. any text incorporated in audio-visual fixations prepared and published solely for the purpose of systematic instructional activities, for broadcasting such translation for the purposes of teaching or for the dissemination for of the results of specialised, technical or scientific research to the experts in any particular field.

6. The provisions of sub-sections (2) to (4) insofar as they are relatable to an application under sub-section (1A), shall, with the necessary modifications, apply to the grant of a licence under sub-section (5) and such licence shall not also be granted unless-

a. the translation is made from a work lawfully acquired;

b. the broadcast is made through the medium of sound and visual recordings;

c. such recording has been lawfully and exclusively made for the purpose of broadcasting in India by the applicant or by any other broadcasting agency; and

d. the translation and the broadcasting of such translation are not used for any commercial purposes.

Explanation: For the purposes of this section,-

a. "developed country" means a country which is not a developing country;

b. "developing country" means a country which is for the time being regarded as such in conformity with the practice of the General Assembly of the United Nations;

c. "purposes of research" does not include purposes of industrial research, or purposes of research by bodies corporate (not being bodies corporate owned or controlled by government) or other associations or body of persons for commercial purposes;

d. " purposes of teaching, research or scholarship" includes-

i. purposes of instructional activity at all levels in educational institutions, including schools, colleges, universities and tutorial institutions; and

ii. purposes of all other types of organised educational activity.]

A. License to Reproduce and Publish Works for Certain Purposes

1. Where, after the expiration of the relevant period from the date of the first publication of an edition of a literary, scientific or artistic work,-

a. the copies of such edition are not made available in India; or

b. such copies have not been put on sale in India for a period of six months, to the general public, or in connection with systematic instructional activities at a price reasonably related to that normally charged in India for comparable works by the owner of the right of reproduction or by any person authorised by him in this behalf, any person may apply to the Copyright Board for a licence to reproduce and publish such work in printed or analogous forms of reproduction at the price at which such edition is sold or at a lower price for the purposes of systematic instructional activities.

2. Every such application shall be made in such form as may be prescribed and shall state the proposed retail price of a copy of the work to be reproduced.

3. Every applicant for a licence under this section shall, along with his application, deposit with the Registrar of Copyrights such fee as may be prescribed.
4. Where an application is made to be Copyright Board under this section, it may, after holding such inquiry as may be prescribed, grant to the applicant a licence not being an exclusive licence, to produce and publish a reproduction of the work mentioned in the application subject to the conditions that,-
   i. the applicant shall pay to the owner of the copyright in the work royalties in respect of copies of the reproduction of the work sold to the public, calculated at such rate as the Copyright Board may, in the circumstances of each case, determine in the prescribed manner;
   ii. a licence granted under this section shall not extend to the export of copies of the reproduction of the work outside India and every copy of such reproduction shall contain a notice that the copy is available for distribution only in India:

PROVIDED that no such licence shall be granted unless-

a. the applicant has proved to the satisfaction of the Copyright Board that he had requested and had been denied authorisation by the owner of the copyright in the work to reproduce and publish such work or that he was, after due diligence on his part, unable to find such owner;
b. where the applicant was unable to find the owner of the copyright, he had sent a copy of his request for such authorisation by registered air-mail post to the publisher whose name appears from the work not less than three months before the application for the licence;
c. the Copyright Board is satisfied that the applicant is competent to reproduce and publish an accurate reproduction of the work and possesses the means to pay to the owner of the copyright the royalties payable to him under this section;
d. the applicant undertakes to reproduce and publish the work at such price as may be fixed by the Copyright Board, being a price reasonably related to the price normally charged in India for works of the same standard on the same or similar subjects;
e. a period of six months in the case of an application for the reproduction and publication of any work of natural science, physical science, mathematics or technology, or a period of three months in the case of an application for the reproduction and publication of any other work, has elapsed from the date of making the request under clause (a), or where a copy of the request has been sent under clause (b), from the date of sending of a copy, and a reproduction, of the work has not been published by the owner of the copyright in the work or any person authorised by him within the said period of six months or, three months, as the case may be;
f. the name of the author and the title of the particular edition of the work proposed to be reproduced are printed on all the copies of the reproduction;
g. the author has not withdrawn from circulation copies of the work; and
h. an opportunity of being heard is given, wherever Practicable, to the owner of the copyright in the work.

5. No licence to reproduce and publish the translation of a work shall be granted under this section unless such translation has been published by the owner of the right of translation or any person authorised by him and the translation is not in a language in general use in India.
6. The provisions of this section shall also apply to the reproduction and publication, or translation into a language in general use in India, of any text incorporated in audio-visual fixations prepared and published solely for the purpose of systematic instructional activities.

Explanation : For the purposes of this section, "relevant period", in relation to any work, means a period of-

a. seven years from the date of the first publication of that work, where the application is for the reproduction and publication of any work of, or relating to, fiction, poetry, drama, music or art;
b. three years, from the date of the first publication of that work, where the application is for the reproduction and publication of any work of, or relating to, natural science, physical science, mathematics or technology; and
c. five years from the date of the first publication of that work, in any other case.

B. Termination of Licences Issued Under this Chapter

1. If, at any time after the granting of a licence to produce and publish the translation of a work in any language under sub-section (1A) of section 32 (hereafter in this sub-section refereed to as the licensed work), the owner of the copyright in the work or any person authorised by him publishes a translation of such work in the same language and which is substantially the same in content at a price reasonably related to the price normally charged in India for the translation of works of the same standard on the same or similar subject, the licence so granted shall be terminated :

   PROVIDED that no such termination shall take effect until after the expiry of a period of three months from the date of service of a notice in the prescribed manner on the person holding such licence by the owner of the right of translation intimating the publication of the translation as aforesaid:

   PROVIDED FURTHER that copies of the licensed work produced and published by the person holding such licence before the termination of the licence takes effect may continue to be sold or distributed until the copies already produced and published are exhausted.

2. If, at any time after the granting of a licence to produce and publish the reproduction or translation of any work under section 32A, the owner of the right of reproduction or any person authorised by him sells or distributes copies of such work or a translation thereof, as the case may be, in the same language and which is substantially the same in content at a price reasonably related to the price normally charged in India

for works of the same standard on the same or similar subject, the licence so granted shall be terminated:

PROVIDED that no such termination shall take effect until after the expiry of a period of three months from the date of service of a notice in the prescribed manner on the person holding the licence by the owner of the right of reproduction intimating the sale or distribution of the copies of the editions of work as aforesaid :

PROVIDED FURTHER that any copies already reproduced by the licensee before such termination takes effect may continue to be sold or distributed until the copies already produced are exhausted.]

4[Rights of Broadcasting Organisation and of Performers]

Broadcast Reproduction Right

1. Every broadcasting organisation shall have a special right to be known as "broadcast reproduction right" in respect of its broadcasts.
2. The broadcast reproduction right shall subsist until twenty-five years from the beginning of the calendar year next following the year in which the broadcast is made.
3. During the continuance of a broadcast reproduction right in relation to any broadcast, any person who, without the licence of the owner of the right does any of the following acts of the broadcast or any substantial part thereof,-
   a. re-broadcasts the broadcasts; or
   b. causes the broadcast to be heard or seen by the public on payment of any charges;or
   c. makes any sound recording or visual recording of the broadcast; or
   d. makes any reproduction of such sound recording or visual recording where such initial recording was done without licence or, where it was licensed, for any purpose not envisaged by such licence; or
   e. sells or hires to the public, or offers for such sale or hire, any such sound recording or visual recording referred to in clause (c) or clause (d), shall, subject to the provisions of section 39, be deemed to have infringed the broadcast reproduction right.]

A. Other Provisions Applying to Broadcast Reproduction Right and Performer's Right

Sections 18, 19, 30, 53, 55, 58, 64, 65 and 66 shall, with any necessary adaptations and modifications, apply in relation to the broadcast reproduction right in any broadcast and the performer's right in any performance as they apply in relation to copyright in a work:

PROVIDED that where copyright or performer's right subsists in respect of any work or performance that has been broadcast, no licence to reproduce such broadcast, shall take effect without the consent of the owner of rights or performer, as the case may be, or both of them.]

Power to Restrict rights of Foreign Broadcasting Organisations and Performers

If it appears to the Central Government that a foreign country does not give or has not undertaken to give adequate protection to rights of broadcasting organisations or performers, the Central Government may, by order published in the Official Gazette, direct that such of the provisions of this Act as confer right to broadcasting organisations or performers, as the case may be, shall not apply to broadcasting organisations of performers whereof are based or incorporated in such foreign country or are subjects or citizens of such foreign country and are not incorporated or domiciled in India, and thereupon those provisions shall not apply to such broadcasting organisations or performers.]

Infringement of Copyright

Certain Acts not to be Infringement of Copyright

1. The following acts shall not constitute an infringement of copyright, namely,-
   a. a fair dealing with a literary, dramatic, musical or artistic work [3][not being a computer programme] for the purposes of-
      [4][(i) private use, including research;]

ii. criticism or review, whether of that work or of any other work;

[3][(aa) the making of copies or adaptation of a computer programme by the lawful possessor of a copy of such computer programme, from such copy

i. in order to utilise the computer programme for the purpose for which it was supplied; or

ii. to make back-up copies purely as a temporary protection against loss, destruction or damage in order only to utilise the computer programme for the purpose for which it was supplied;]

[21][(ab) the doing of any act necessary to obtain information essential for operating inter-operability of an independently created computer programme with other programmes by a lawful possessor of a computer programme, provided that such information is not otherwise readily available;

ac. the observation, study or test of functioning of the computer programme in order to determine the ideas and principles which underline any elements of the programme while performing such acts necessary for the functions for which the computer programme was supplied;

ad. the making of copies or adaptation of the computer programme from a personally legally obtained copy for non-commercial personal use;]

b. a fair dealing with a literary, dramatic, musical or artistic work for the purpose of reporting current events-
   i. in a newspaper, magazine or similar periodical, or
   ii. by [6][broadcast] or in a cinematograph film or by means of photographs.

[5][*Explanation*: The publication of a compilation of addresses or speeches delivered in public is not a fair dealing of such work within the meaning of this clause;]

c. the reproduction of a literary, dramatic, musical or artistic work for the purpose of a judicial proceeding or for the purpose of a report of a judicial proceeding;

d. the reproduction or publication of a literary, dramatic, musical or artistic work in any work prepared by the Secretariat of a Legislature or, where the Legislature consists of two Houses, by the Secretariat of either House of the Legislature, exclusively for the use of the members of that Legislature;

e. the reproduction of any literary, dramatic or musical work in a certified copy made or supplied in accordance with any law for the time being in force;

f. the reading or recitation in public of any reasonable extract from a published literary or dramatic work;

g. the publication in a collection, mainly composed of non-copyright matter, bona fide intended for the use of educational institutions, and so described in the title and in any advertisement issued by or on behalf of the publisher, of short passages from published literary or dramatic works, not themselves published for the use of educational institutions, in which copyright subsists:

PROVIDED that not more than two such passages from works by the same author are published by the same publisher during any period of five years.

Explanation : In the case of a work of joint authorship, references in this clause to passages from works shall include references to passages from works by any one or more of the authors of those passages or by any one or more of those authors in collaboration with any other person;

h. the reproduction of a literary, dramatic, musical or artistic work-

i. by a teacher or a pupil in the course of instruction; or

ii. as part of the questions to be answered in an examination; or

iii. in answers to such questions;

i. the performance in the course of the activities of an educational institution, of a literary, dramatic or musical work by the staff and students of the institution, or of a cinematograph film or a [10][sound recording], if the audience is limited to such staff and students, the parents and guardians of the students and persons directly connected with the activities of the institution [3][or the communication to such an audience of a cinematograph film or sound recording];

[4][(j) the making of sound recordings in respect of any literary, dramatic or musical work, if-

i. sound recordings of that work have been made by or with the licence or consent of the owner of the right in the work;

ii. the person making the sound recordings has given a notice of his intention to make the sound recordings, has provided copies of all covers or labels with which the sound recordings are to be sold, and has paid in the prescribed manner to the owner of rights in the work royalties in respect of all such sound recordings to be made by him, at the rate fixed by the Copyright Board in this behalf

PROVIDED that-

i. no alterations shall be made which have not been made previously by or with the consent of the owner of rights, or which are not reasonably necessary for the adaptation of the work for the purpose of making the sound recordings;

ii. the sound recordings shall not be issued in any form of packaging or with any label which is likely to mislead or confuse the public as to their identity;

iii. no such sound recording shall be made until the expiration of two calendar years after the end of the year in which the first sound recording of the work was made; and

iv. the person making such sound recordings shall allow the owner of rights or his duly authorised agent or representative to inspect all records and books of account relating to such sound recording:

PROVIDED FURTHER that if on a complaint brought before the Copyright Board to the effect that the owner of rights has not been paid in full for any sound recordings purporting to be made in pursuance of this clause, the Copyright Board is, prima facie, satisfied that the complaint is genuine, it may pass an order ex parte directing the person making the sound recording to cease from making further copies and, after holding such inquiry as it considers necessary, make such further order as it may deem fit, including an order for payment of royalty;

k. the causing of a recording to be heard in public by utilising it,-

i. in an enclosed room or hall meant for the common use of residents in any residential premises (not being a hotel or similar commercial establishment) as part of the amenities provided exclusively or mainly for residents therein; or

ii. as part of the activities of a club or similar organisation which is not established or conducted for profit;]

l. the performance of a literary, dramatic or musical work by an amateur club or society, if the performance is given to a non-paying audience, or for the benefit of a religious institution;

m. the reproduction in a newspaper, magazine or other periodical of an article on current economic, political, social or religious topics, unless the author of such article has expressly reserved to himself the right of such reproduction;

n. the publication in a newspaper, magazine or other periodical of a report of a lecture delivered in public;

o. the making of not more than three copies of a book (including a pamphlet, sheet of music, map, chart or plan) by or under the direction of the person in charge of a public library for the use of the library if such book is not available for sale in India;

p. the reproduction, for the purpose of research or private study or with a view to publication, of an unpublished

literary, dramatic or musical work kept in a library, museum or other institution to which the public has access:

PROVIDED that where the identity of the author of any such work or, in the case of a work of joint authorship, of any of the authors is known to the library, museum or other institution, as the case may be, the provisions of this clause shall apply only if such reproduction is made at a time more than [23][sixty years] from the date of the death of the author or, in the case of a work of joint authorship, from the death of the author whose identity is known or, if the identity of more authors than one is known from the death of such of those authors who dies last;

q. the reproduction or publication of-

i. any matter which has been published in any Official Gazette except an Act of a Legislature;

ii. any Act of a Legislature subject to the condition that such Act is reproduced or published together with any commentary thereon or any other original matter;

iii. the report of any committee, commission, council, board or other like body appointed by the government if such report has been laid on the Table of the Legislature, unless the reproduction or publication of such report is prohibited by the government;

iv. any judgement or order of a court, Tribunal or other judicial authority, unless the reproduction or publication of such judgement or order is prohibited by the court, the Tribunal or other judicial authority, as the case may be;

r. the production or publication of a translation in any Indian language of an Act of a Legislature and of any rules or orders made thereunder-

i. if no translation of such Act or rules or orders in that language has previously been produced or published by the government; or

ii. where a translation of such Act or rules or orders in that language has been produced or published by the government, if the translation is not available for sale to the public:

PROVIDED that such translation contains a statement at a prominent place to the effect that the translation has not been authorised or accepted as authentic by the government;

[4][(s) the making or publishing of a painting, drawing, engraving or photograph of a work of architecture or the display of a work of architecture;]

t. the making or publishing of a painting, drawing, engraving or photograph of sculpture, or other artistic work falling under sub-clause (iii) of clause (c) of section 2, if such work is permanently situate in a public place or any premises to which the public has access;

u. the inclusion in a cinematograph film of-

i. any artistic work permanently situate in a public place or any premises to which the public has access; or

ii. any other artistic work, if such inclusion is only by way of background or is otherwise incidental to the principal matters represented in the film;

v. the use by the author of an artistic work, where the author of such work is not the owner of the copyright therein, of any mould, cast, sketch, plan, model or study made by him for the purpose of the work:

PROVIDED that he does not thereby repeat or imitate the main design of the work;

w. [2][* * *]

x. the reconstruction of a building or structure in accordance with the architectural drawings or plans by reference to which the building or structure was originally constructed:

PROVIDED that the original construction was made with the consent or licence of the owner of the copyright in such drawings and plans;

y. in relation to a literary, dramatic or musical work recorded or reproduced in any cinematograph film, the exhibition of such film after the expiration of the term of copyright therein:

PROVIDED that the provisions of sub-clause (ii) of clause (a), sub-clause (i) of clause (b) and clauses (d), (f), (g), (m) and (p) shall not apply as respects any act unless that act is accompanied by an acknowledgement-

i. identifying the work by its title or other description; and

ii. unless the work is anonymous or the author of the work has previously agreed or required that no acknowledgement of his name should be made, also identifying the author;

[3][(z) the making of an ephemeral recording, by a broadcasting organisation using its own facilities for its own broadcast by a broadcasting organisation of a work which it has the right to broadcast; and the retention of such recording for archival purposes on the ground of its exceptional documentary character;

za. the performance of a literary, dramatic or musical work or the communication to the public of such work or of a sound recording in the course of any bona fide religious ceremony or an official ceremony held by the Central Government or the State Government or any local authority.

Explanation : For the purpose of this clause, religious ceremony including a marriage procession and other social festivities associated with a marriage.]

2. The provisions of sub-section (1) shall apply to the doing of any act in relation to the translation of a literary, dramatic or musical work or the adaptation of a literary, dramatic, musical or artistic work as they apply in relation to the work itself.

Particulars to be Included in [10][Sound Recordings] and Video Films

1. No person shall publish a [10][sound recording] in respect of any work unless the following particulars are displayed on

the [10][sound recording] and on any container thereof, namely,-

a. the name and address of the person who has made the [10][sound recording];

b. the name and address of the owner of the copyright in such work; and

c. the year of its first publication.

2. No person shall publish a video film in respect of any work unless the following particulars are displayed in the video film, when exhibited, and on the video cassette or other container thereof, namely,-

a. if such work is a cinematograph film required to be certified for exhibition under the provisions of the Cinematograph Act, 1952 (37 of 1952), a copy of the certificate granted by the Board of Film Certification under section 5A of that Act in respect of such work;

b. the name and address of the person who has made the video film and a declaration by him that he has obtained the necessary licence or consent from the owner of the copyright in such work for making such video film; and

c. the name and address of the owner of the copy right in such work.]

Author's special rights

[4][(1) Independently of the author's copyright and even after the assignment either wholly or partially of the said copyright, the author of a work shall have the right-

a. to claim authorship of the work; and

b. to restrain or claim damages in respect of any distortion, mutilation, modification or other act in relation to the said work which is done before the expiration of the term of copyright if such distortion, mutilation, modification or other act would be prejudicial to his honour or reputation:

PROVIDED that the author shall not have any right to restrain or claim damages in respect of any adaptation of a computer programme to which clause (aa) of sub-section (1) of section 52 applies.

Explanation : Failure to display a work or to display it to the satisfaction of the author shall not be deemed to be an infringement of the rights conferred by this section.]

2. The right conferred upon an author of a work by sub-section (1), other than the right to claim authorship of the work, may be exercised by the legal representatives of the author.

Foot Notes

1 21st. January, 1958, vide Notification No. SRO 269, Gazette of India, Ext. Part II, s. 3(ii), p, 167.

2 Omitted by Act No.38 of 1994, w.e.f. 10th. May, 1995.

3 Inserted by Act No. 38 of 1994, w.e.f. 10th. May, 1995.

4 Substituted by Act No. 38 of 1994, w.e.f. 10th. May, 1995.

5 Inserted by Act No. 23 of 1983, w.e.f. 9th. August, 1984.

6 Substituted for the words "radio-diffusion" by Act No. 23 of 1983, w.e.f. 9th. August, 1984.

7 Inserted by Act No. 65 of 1984, w.e.f. 8th. October, 1984.

8 Earlier clause (1) substituted by Act No. 23 of 1983, w.e.f. 9th. August, 1984.

9 Substituted for the words "data basis" by the Copyright (Amendment) Act 49 of 1999, dated 30th. December, 1999.

10 Substituted by Act No. 38 of 1994, for the word "records", w.e.f. 10th. May, 1995.

11 Omitted by Act No. 23 of 1983, w.e.f. 9th. August, 1984.

12 Substituted by Act No. 38 of 1994, for the words "the Copyright Board", w.e.f. 10th. May, 1995.

13 Substituted by Act No. 23 of 1983, w.e.f. 9th. August, 1984.

14 Substituted by the Copyright (Amendment) Act, 1999.

15 The words "Indian Patents and" omitted by Act No. 23 of 1983, w.e.f. 9th. August, 1984.

16 Section 19 re-numbered as sub-section (1) thereof by Act No. 23 of 1983, w.e.f. 9th. August, 1984.

17 Substituted by Act No. 13 of 1992, for the word "fifty", w.e.f. 28th. December, 1991.

18 Substituted by Act No. 23 of 1983, for the words "such application", w.e.f. 9th. August, 1984.

19 Substituted by Act No. 23 of 1983, for the words "Provided that no such licence", w.e.f. 9th. August, 1984.

20 Substituted for the words "twenty-five years" by the Copyright (Amendment) Act 49 of 1999, dated 30th. December, 1999.

21 Inserted by the Copyright (Amendment) Act 49 of 1999, dated 30th. December, 1999.

22 Omitted by Act No. 65 of 1984, w.e.f. 8th. October, 1984.

23 Substituted for the words "fifty years" by the Copyright (Amendment) Act 49 of 1999, dated 30th. December, 1999.

24 Substituted by Act No. 23 of 1983, for the words and figures 'under section 19 of the Sea Customs Act, 1878', w.e. f. 9th. August, 1984.

25 Substituted by Act No. 23 of 1983, for the words 'the Specific Relief Act, 1877', w.e.f. 9th. August, 1984.

26 Substituted by Act No. 23 of 1983, for the words 'in section 42 of the Specific Relief Act, 1877', w.e.f. 9th. August, 1984.

27 Substituted by Act No. 65 of 1984, w.e.f. 8th. October, 1984.

28 Substituted by Act No. 23 of 1983, for the words 'a Presidency Magistrate or a Magistrate of the first class', w.e.f. 9th. August, 1984.

29 Substituted by Act No. 23 of 1983, for sub-section (3), w.e.f. 9th. August, 1984

LESSON 32:
USING RESEARCH WELL

Topics Covered
Difference, Planning, Evaluation, Haste, Knowing

Objectives
Upon completion of this Lesson, you should be able to:

1. Difference between evaluative and creative research
2. Make contingency plans
3. Haste is the enemy of quality
4. Hold a planning meeting after the survey

Using Research Well
Even though managers often bemoan the lack of research, a lot of research that's done is never acted on. For researchers, this is often frustrating, and for managers, irrelevant research is a money-wasting irritant.

The key principle in using research data is to plan the action at the same time you plan the survey. If the wrong population is sampled, or the questions are not fully relevant, the research will not be properly usable.

Here are five principles to follow, if you want to use research well:

1. Avoid intermediaries.
2. Haste is the enemy of quality.
3. "I knew that all along."
4. Make a contingency plan.
5. Hold a follow-up meeting.

Difference between Evaluative and Creative Research
One obstacle to research being used is that people feel threatened. If somebody has managed a department for years, and thinks he's done it well, he's not going to be receptive to some of the audience (via research) informing him there are better ways. And when people think the quality of their work is being judged by research, they can become very defensive. An obvious solution is to attack the research. This is often a problem with evaluative research.

But when a new project is being planned, people are often keen to use research, to find out more about the audience. In this case, the danger is the opposite one - that vague research findings will be believed too much. When a new concept is presented - perhaps a new type of TV program - viewers can't really grasp the idea without seeing the program a few times. They tend to be polite to the researchers, to say that this proposal sounds like a good idea, and that they'd definitely watch the program. (Maybe they don't add that they might watch it for only a few minutes.) The result is that new programs often gain smaller audiences than the research suggests. Experienced researchers are more skeptical in such situations, not interpreting weakly expressed interest as a definite intention to view.

1. Avoid Intermediaries
One sure way to produce unusable research is for the end-users of research and the researchers not to communicate fully. Here's an example of how not to do it:

A middle manager wants some research done, and sends a written request to his or her superior. The superior makes a few changes and sends it on to say, a purchasing manager, who rephrases it again to comply with corporate policy. The purchasing manager then contacts a researcher. If that researcher is not then permitted to deal directly with the originator of the request, the original idea will by now be so distorted that any research on it will be useless!

Why is that? Because (a) the sample you really need is probably one you'll never quite be able to reach, and (b) the art of question wording is a very subtle one. It usually takes three or four meetings between researcher and client before a questionnaire and sample design are adequate.

2. Haste is the Enemy of Quality
The person who will use the results and the person who will manage the research need to spend an adequate amount of time discussing the research plan. Usually this will require at least two meetings, and several hours at least. Time spent planning the research is never wasted.

Often an organization will spend months vaguely thinking that it needs some audience research done, and at the last moment will decide that it needs the results as soon as possible. A false sense of urgency is built up. With the resultant rush, mistakes are made. As soon as the first results are released - or even in the middle of a survey - people will begin saying "If only we'd thought to ask them such-and-such..."

I've often experienced this frantic haste - specially when advertising agencies are involved. There's an old truism about research: "It can be cheap, it can be fast, and it can be high quality. Pick any two." So hasty research will either be of low quality, or very expensive. Take your pick.

3. "I Knew that all Along"
A common criticism of survey data is that you spent a lot of money to find out what you already knew.

There's a very educational way to overcome the "I knew it all along" attitude. When the questionnaire is complete, and the survey is ready to go, give all end-users a copy of the questionnaire. Ask them to estimate the percentage who will give each answer to each question, and write these figures on the questionnaire, along with their names. Collect the questionnaires, and summarize everybody's guesses. When the survey has been finished, compare the actual results with the guesses. Then it will become obvious that:

They didn't know it all along. Even experienced researchers are doing well if they get as many as half the results within 20% of the actual figure;

The act of guessing (OK, estimating) the answers will make the users more aware of the audience, and more interested in the results. I don't know why this is so, but it always seems to work out that way.

4. Make Contingency Plans

This involves deciding before the survey begins what will be done with the results. Is any action foreshadowed? Or is the purpose of the survey simply to increase broadcasters' understanding of their audience? Or what? In practice, each question usually has a different purpose.

Here's a useful exercise, which is best done while the questionnaire is being written. For each question, write down...

a. The reason for its being asked, and

b. How the results could be acted on.

The advantage of making a contingency plan is that it is often several months between the questionnaire being written and the survey results becoming available. It's easy to forget why a question was asked.

Here's an example of a contingency plan.

Question:
Why did you not renew your subscription to Week?
(Please tick all boxes that apply.)

[1] Am no longer able to read to it (e.g. time is a problem)

[2] Price increase was too large

[3] Didn't know subscription was due

[4] Haven't got around to renewing, but may do so some day

[5] Subscribed mainly to get the program guide, now discontinued

[6] Other reason: . . . . . .

Reason for asking this question:
Find out how to get more subscribers to renew.

Contingency Plan
If answer = 1 or questionnaire returned blank: delete from database
If 2 or 6: Send Letter A, pointing out increased benefits
If 3 or 4: Send reminder letter C
If 6: determine which of the above is most appropriate.

That example was for a census (all subscribers) rather than a survey, and the question was very specific. Normally it would not be possible to have an individual reaction for each member of the population.

A contingency plan not be followed exactly after the results arrive. In the month or two that may pass, many things can change - or you may realize that your plan didn't take enough into account. Even so, when you produce a plan like this, it helps to clarify your thinking. And if a group of managers make a contingency plan together, it helps them all agree on what they are really trying to achieve, and on the real purpose of the survey.

Not all questions call for a specific action. To gain an understanding of the audience is also important - and you never know when previously-collected information might suddenly become relevant. But you can ask 1,000 questions and never ask the exact one for which you'll need an answer next month. I suggest that questions which don't lead to any action should be given a low priority in a questionnaire.

5. Hold a Planning Meeting After the Survey

When the survey results are out, the researchers need to do more than simply send out a report. The most effective follow-up occurs when the initial results are presented to a group of end-users, who can then ask questions and make it clear which questions need more detailed analysis. At this presentation, everybody's initial estimates of the answers can be brought out, and a small reward perhaps offered for the closest guess.

If the report is written after this initial presentation, it will contain more relevant data, and less irrelevant material. When the report has been finished and sent out, it's a good idea to hold a second presentation, this time focusing on how the results can be used, what has been learned, and what further research or information may be needed to make better decisions.

Researcher's responsibilities

i. All research effort must be directly applicable to management decision-making. It should never be just research for research sake, but should be focused on some definite practical problems. Research should guard itself against the danger of being reduced to mere aimless fact-gathering. It has the responsibility of digesting the data and presenting management with the salient features which have a practical utility and direct bearing on the problem in hand and thus it helps in the choice of a decision.

ii. Research reports should be action - oriented and not technique-oriented in their content. Researcher should not forget the fact that the management is primarily concerned with the findings which have a direct bearing on the problem, and only secondarily with the techniques of the research process. Reports should not therefore consist of unnecessary technical jargon and must be wholly slanted towards the practical use that management can make of the findings.

iii. Researcher must clearly define the limitations of the findings. All too often, the misuse of research findings stems from the failure of researchers to make clear to management the limitations of their findings.

iv. Researcher should work as a team with management. Researchers must recognize the fact that manager can make valuable contributions to the research process from the marketing side about which they are better informed. Researchers should, therefore, not confine themselves in the narrow area of research alone but work actively with management in a much broader context as a team as a result of which each will understand the other better.

v. Researcher should "sell" himself to the management. While it is true that management must develop a proper understanding and appreciation of the value of marketing

research as a management tool, it is just as important that Research should enlighten management on this score by practical demonstrations rather than mere theoretical expoundings on the subject.

vi. With the challenge posed by the increasingly complex and thorough imaginative adaptation of existing techniques, the horizons of Marketing Research should be enlarged. This calls for a progressive and creative spirit among researchers, who must be constantly alive to the problems of management.

Research and Market

Research for the market or Marketing research is defined as the systematic process of gathering, recording and analysing of all problems relating to the transfer and sales of goods and from producer to consumer. It includes such activities a1 analysis, sales research, consumer research and ad" research. Marketing Research, or MR in short, is between the manufacturer and the consumer and the r providing consumer orientation in all aspects of the II function. It is the instrument of obtaining the knowledge the market and the consumer through objective method guard against the manufacturer's subjective bias.

Many empirical studies indicates that correct man decisions in marketing are made in about 57 per cent problems handled. This percentage indicates the need of marketing research designed to raise the proportion 1 decisions. Management can arrive at accurate decision when in possession of pertinent facts correctly interpre obtained through marketing research provision the decisions concerning the following problems. Which di channels to utilise; which products to market; where 1 whether or not advertising and other sales promotion used and if they are, the nature of such advertising promotion. In other words marketing research helps t the efficiency of marketing methods.

1. Value of Marketing Research vis-a-vis Costs

Marketing Research can contribute to efficient marketing management in the following ways.

a. It ensures production to a carefully measured consumer demand and thus avoids marketing failures. Marketing Research studies the market to determine what exactly the consumer needs and their characteristics of demand.

b. It helps expansion through the discovery of new markets, new products and new uses for existing products.

c. Marketing Research helps to increase the effectiveness of advertising and promotional efforts to stimulate sales through the selection of :

i. the best campaign and media schedule to research the target consumers;

ii. the most fruitful timing of promotions;

iii. the markets where the advertising investment will bring in the greatest returns.

d. Marketing Research helps to reduce costs

It helps to reduce distribution costs through optimum coverage, and production costs through the increase in sales leading to economics of large-scale production and simplification of product-line. Thus, Marketing Research does increase net profits through greater efficiency of marketing efforts and lesser wastage for which the need is even more for the smaller firms and industries because they cannot afford any wastage of scarce resources.

Further, in contrast to the vast outlays required by technical research and development, Marketing Research requires a much smaller investment. The importance of technical research for the growth of a company cannot be denied. On the other hand, considering the risks of the market place, the enormous capital investment involved in the setting of a plant, and the irreversibility of investment decisions, one cannot deny, either, the need for a smaller expenditure in Marketing Research before investing on the plant, etc., to ensure the productivity of the plant through sustained sales. Cost consciousness on the part of management is essential, but this is applied as much to Marketing Research as to any other side of the business. Moreover, the value of Marketing Research as the base for sound Marketing has to be recognised. Perhaps, the chief reason for this cautious approach towards investment in Marketing Research is that, while technical research produces visible gains, the benefits of marketing Research are in most cases latent and intermixed with the total marketing operation.

2. Type of marketing research

There are six basic type of marketing research. They are:

a. Market Caracteristics Research

The most fundamental type of marketing research is that which studies the consumer market for the products of industry or business services. By describing and measuring the consumer market in terms of standard characteristics such as age, sex and economic class these studies provide executives with an understanding of the end use of their products which forms a factual foundation for many of the most vital decisions in marketing. These researches range from national studies having a bearing on many phase of marketing policy to small specialized surveys confined to limited geographical areas or designed to answer only one or two vital questions.

Some of the more common subject studies in connection with a consumer Research are given below:

1. How long are consumers loyal to a particular brand?
2. What factors, conditions and reasons effect consumer brand loyalty?
3. How do ,users begin using a certain brand?
4. What are consumer's reasons for using a certain brand?
5. What is the relationship between users and buyers?
6. What are the buying reasons and motives?
7. What products are associated in usage? How is the sale affected?
8. How often is the product used?
9. In what units is the product purchased?
10. Where do consumers buy or prefer to buy the product?

b. Motivation Research

Motivation research employ social science techniques to find and evaluate the motivating forces which cause certain behaviour in the market place. It involves a penetrating analysis of the

thinking and attitudes of consumers to discover the subconscious reasons why consumers buy particular products and specific brands. To uncover the deep-rooted reasons for market place behaviour motivation researchers use such techniques as: Word association tests; sentence completion tests; depth interviews; group interviewing and thematic perception tests.

c. Size of the Market Research (Market Analysis)

Market research develops market and sales potentials and sales quotas by determining how much of a commodity a given market can be expected to absorb. In addition, indices of potential for each city or trading area are computed so that territories of salesmen, distributors and dealers may be properly defined. Studies of potential sales permit the selection of territories in which to concentrate sales or advertising effort. Market analysis involves investigations of various elements of consumer demand including total demand, relative demand, replacement demand, market saturation and consumption rates.

d. Sales Research (Sales Analysis and Control)

Sales research, often referred to as internal analysis, is one of the ritost fertile fields of marketing research. Two general areas are included : The first is sales record analysis. It uses as the source of information the records of sales transactions and accounting data on sales accumulated in the ordinary conduct of the business. Sales records are a variable gold mine for the researcher with a keen analytical mind and imagination. By summarising, re-arranging, comparing and studying sales data already available in the records of the business, he brings out new facts buried in the detail of day-to-day record keeping. He establishes new relationships to marketing efficiency. He makes revealing comparisons of performance between units such as sales territories, product lines, dealers and individual salesmen. The second area of sales analysis is sales organisation and operation research. As a result of the scope of modem selling activities, the size of sales departments and the complexity. of markets, there are many aspects of the sales operation requiring application of marketing research techniques. Many of the basic marketing weaknesses of the individual company lie in its sales personnel, its organisation and operation. The importance of developing the greatest possible efficiency in this area is emphasised by the ultimate dependency of all business on sales volume and the relatively large share of marketing expenses allocated to the sales function. The application of marketing research techniques to the selling operation may range from a basic survey to specialised studies of specific sales problems.

e. Distribution Research (Distribution Cost Analysis)

Distribution cost analysis provides the means by which individual companies can find wastes in their marketing effort and convert unprofitable segments of sales into profits. Distribution cost analysis has proved a most valuable method to:

- Analyse how salesmen spend their time.
- Analyse advertising budgets by territories, products and cities.
- Analyse the effect of salesmen's compensation methods on distribution costs.
- Study distribution cost trends over a period of time.
- Estimate deed items, sizes and varieties in inventory that tie up working capital.
- Simplify the product line.
- Evaluate customers.
- Appraise warehousing, transportation and delivery costs in the light of market requirements.

f. Advertising Research

Corporate houses and organisations constantly ponder whether their advertising is accomplishing its objective, that of influencing the minds, emotions and actions of existing and prospective buyers. The answers can only come from advertising research. Several types of marketing research contribute to the development of the advertising plan because it can suggest the kinds of appeals to use, the most suitable media and the market to which advertising should be directed in order to ensure maximum product demand. Advertising research, on the other hand, attempts to measure whether advertising accomplished the task assigned to it. To do this advertising researchers employ opinion tests, split-run tests, readership tests, recognition and recall studies.

g. Product Research

Product research embraces studies of consumer uses, habits and preferences as to product design and technical and laboratory experimental studies to' develop products and packages which will meet the desires of consumers. Consumer and laboratory product research helps the manufacturer decide what to offer the market as regards to product characteristics - sizes, shape, colour, ease of use, packaging and price. The better a manufacturer satisfies consumer. wants, the greater than quantities of the product will be sold. If he fails to meet consumer demands, he opens the door for competitors to obtain sales at his expense.

Assignment

Interpretation is a fundamental component of any research process. Explain. Why so?

LESSON 33:
ARE ALL POLLS VALID?

Topics Covered
Knowing, Risk, Voting, Ignoring

Objectives
Upon completion of this Lesson, you should be able to:

- Knowing what is opinion polls
- Ignoring response bias
- Voting online
- Risk of credibility

Are All Polls Valid?
The headline in the local paper read *3Com Out to Poll World on Everything*. The story heralded plans for a huge "survey" of people worldwide, sponsored by 3Com. The project will allow participants to "see how their answers compare with those of people around the world," according to the Associated Press.

The only problem with this groundbreaking study is that, as the article casually mentioned in the very last paragraph, "the poll will not be statistically valid."

What this really means is that this study is actually representative of nothing and nobody. It's a huge, glorified focus group, where we hear a lot of opinions with no way to quantify any of them in a way that represents the world's population accurately. But when the "findings" from this "study" are released to the media, do you *really* think the emphasis is going to be on the fact that the data is not statistically valid?

Of course not. This little problem will be briefly explained in a footnote. But other than that, this study will most likely be treated as gospel truth. In short, this is a fabulous publicity idea. Unfortunately, for reasons too numerous to list here, it's useless as serious research.

Lest you feel this is an attack solely on this upcoming "research," stop and think for a moment how many similar "research" projects you see every day. Local newscasts ask people to call their 900-number and for only 75 cents they can vote in a telephone "poll." A men's magazine will survey its readers, and claim that the study is representative of all American men. Websites take "polls" all the time, and aside from an occasional footnote the resulting data is treated as if it's a scientifically conducted research study. Companies and organizations use inadequate "research" methods to gather data all too frequently.

Unfortunately, many people treat surveys as if all you have to do is ask enough people a bunch of questions, and because you end up with a stack of data, somehow this means you have a study that reflects the public's real opinions. Management leaders sometimes dismiss researchers' concerns about "statistical significance" and "projectable data" as the cries of some anal-retentive academics who figure if they didn't conduct the research themselves it must not be right.

Researchers face this problem frequently: "It doesn't have to be scientific – it just has to be right!" (an actual quote from a research client). The problem is that the two are inseparable – either conduct it using statistically valid methods, or it won't be right.

Clients want to cut corners, save time, and avoid all the technical jargon that researchers throw at them. Admittedly, researchers don't always help themselves when they rely too much on that technical jargon, rather than trying to explain things so decision-makers realize what they're giving up when they cut corners.

Above all, survey data must be *projectable* in order to be of any use at all. Simply put, this means that a survey is asking questions of a small portion that is supposed to represent a larger population. The portion who participate in the survey must accurately and fully represent the larger population in order for the research to be valid.

There are a number of different barriers to conducting a valid study:

Ignoring Response Bias
Response bias is what happens when a certain type of person responds to a survey, while a different type does not. For instance, we know that women and older people are more likely to participate in a telephone survey than are men or younger people. Unless this factor is corrected, it will bias the survey results. Telephone surveys that attempt to get a random sample of the population but do not account for this factor often end up with 70% of the respondents being female. If women and men have different views on the survey topics, this means the data is being biased by this response rate difference.

Here's a quick example. Let's say 60% of men plan to vote for the Congress candidate in Delhi, while 60% of women plan to vote for the BJP. If Delhi population is evenly split along gender lines, this means the actual vote will be split 50/50 between the two candidates. In a telephone survey that ends up 70% female and 30% male (as many surveys would without controlling this factor) the findings would show that 54% of all respondents support the Democrat, and only 46% support the Republican. This would provide inaccurate and misleading data.

This can be an even-greater problem with e-mail and mail surveys. Response bias is more likely when the response rate (i.e. the proportion of people who complete the survey) is low. A mail survey that has a 5% response rate is probably useless, because the chances of response bias are very high when a response rate is that poor. The 5% who did respond are probably different from the 95% who did not respond.

A common mistake is trying to use a sample of convenience. You have website – why not just survey people who visit your website, and say they're representative for your content? Because the truth is that they're probably *not* representative.

This continues to be one of the major obstacles to effective on-line research. People who use the internet still are not fully representative of the Indian population. Although this is gradually changing, today they still tend to be younger, better educated, higher income, and more likely to be male. If your donor base is heavily weighted towards older women, as many are, this will be a particular problem.

Viewing it internationally, the United States has a much higher proportion of the population on-line than do most other countries, which means a "worldwide" on-line survey will be dominated by responses from the U.S., unless the sample is very carefully controlled for this factor. Without taking these factors into account, an on-line survey will give you a sample of people who are not representative of your target.

Using a Self-selected Sample

This is a major problem with call-in polls or surveys that are posted on a website – only those who really want to say something about the topic will participate. Do you really think someone who doesn't care about the issue of abortion will proactively take the time and spend the to call in and vote?

If a hotel gives you an 800-number to call to participate in a survey, are you more likely to do so if you had a decent experience staying at that hotel, or if you had a terrible experience and want to let someone know about it? Self-selected samples generally provide very polarized responses – people who love you or hate you will reply, but those who just don't care won't bother.

Turning Qualitative Data into Quantitative

This is a basic, unchangeable fact: you cannot pull quantitative, numeric data out of focus groups. Unfortunately, this is also one of the most common research mistakes. Focus groups are extremely useful for understanding how people perceive something. Focus groups are completely useless for finding out *how many* people feel a particular way. If nine out of ten people in a focus group really liked your new prospecting mailing, this does not mean that a majority of people you send it to will feel the same way. The sample size is too small and the sampling methods too non-representative for focus groups to provide projectable data, even if you're conducting a number of groups.

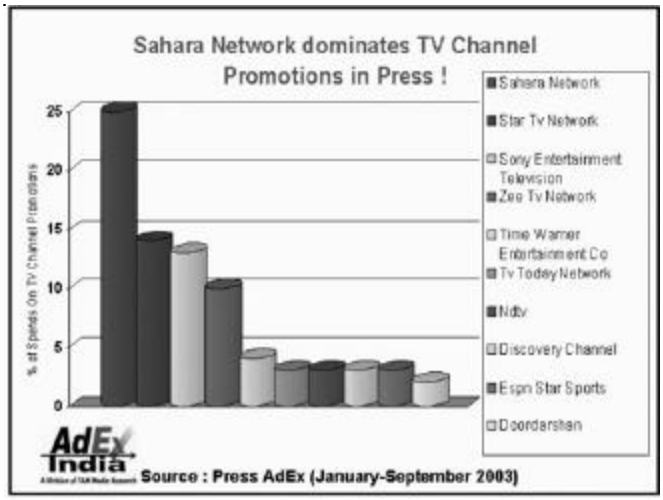
Questions are raised all the time about whether researchers can interview 400 people and say it represents a population of millions. The answer is *yes*, as long as it's done correctly. It's relatively easy to ignore these bogus call-in polls or poorly conducted research studies when they're reported in the media. But if your own organization is making some of the same mistakes in its research efforts, that's not so easy to ignore – and far more dangerous.

Originally published in The NonProfit Times, January 15, 2001

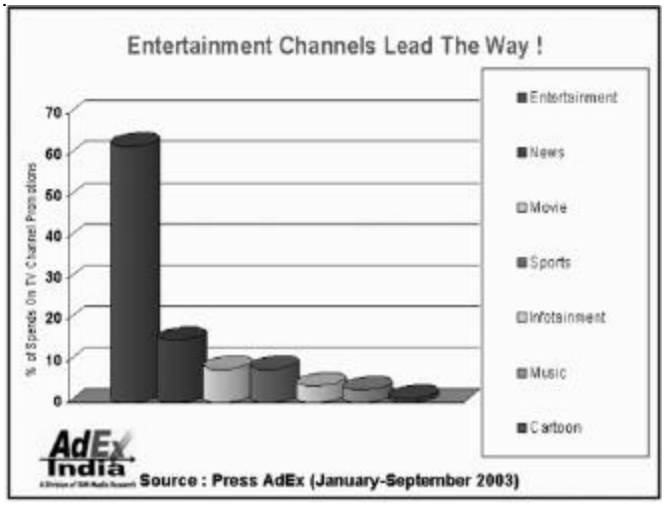
TV Channel Promotions continues to be one of the top Categories On Print-Sahara Manoranjan emerges the biggest spender: An AdEx India Analysis Nov 21, 03

Since the previous two or three years TV Channel Promotions have been amongst the Top Categories on Print. This year too it stands on the 12th position for the three quarters that have passed (January-September 2003)

Taking a look at the top spenders (Networks), the Sahara Network emerges the leader by a long distance accounting for 25% of the spends on TV Channel Promotions followed by Star Tv Network, Sony Entertainment and Zee TV Network. Amazingly, NDTV manages to feature in the Top 10 even though it was totally absent in the first quarter (NDTV was launched in April 2003).



Analyzing the shares of various Channel genres highlights the dominance of Entertainment Channels amongst all TV Channels on Print. 62% of the revenue generated from this category comes from Entertainment Channels. News channels coming second, makes for some interesting reading.



On going deeper into the top promotions for the first three quarters this year, eight of the top ten have been Program Promotions, the other two being Channel Promotions for News channels. Sahara again dominates here with 6 of the top

10 promotions, 5 of them for Sahara Manoranjan. The top promotion was for 'Karishma' followed by 'Mission Fateh' and 'Dil Ki Baatein''

Predikta' a contest from MAX which was on during the ICC Cricket World Cup 2003 is ranked 8th

Channel	Type Of Promotion	Program Name	% Share
Sahara Manoranjan	Program Promotion	Karishma	6.8
Sahara Manoranjan	Program Promotion	Mission Fateh	4.1
Sahara Manoranjan	Program Promotion	Dil Ki Baatein	3.6
Sony	Program Promotion	Jassi Jaissi Koi Nahin	2.9
Sony	Program Promotion	Naam Gum Jayega	2.3
Sahara Samay Rashtriya	Channel Promotion	-	2.1
Aaj Tak	Channel Promotion	-	1.8
Max	Program Promotion	Predikta	1.8
Sahara Manoranjan	Program Promotion	Kise Apna Kahein	1.4
Sahara Manoranjan	Program Promotion	Bharat Parva	1.3

AdEx India

Source : Press AdEx (January-September 2003)

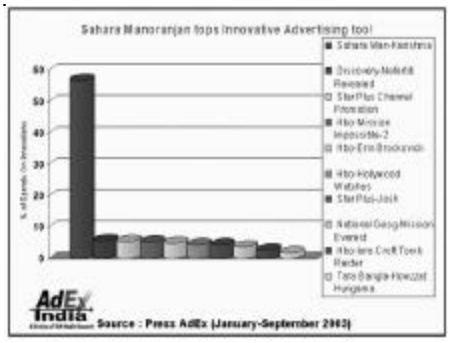
Looking at the innovations used in this category, Linked Ads on Multiple Pages comes out on top. Figured Outline, Teaser Campaigns and Linked Ads On Single Page are the other innovations used.

Type Of Innovation	%Share
Linked Ad Multiple Pages	61.5
Figured Outline	26.8
Teaser-Launch	8.7
Linked Ad Single Page	2.7

AdEx India
A Division of TAM Media Research

Source : Press AdEx (Jan-Sept 2003)

Sahara Manoranjan's 'Karishma' again tops the spenders on Print Innovations. Four of the other top spots have been grabbed by HBO. Sahara had gone for ads on consecutive pages (Linked Ads), which was the largest contributor to this type of innovation while HBO topped the Figured Outline Innovations (ads of irregular shape where parts of the creative eat into the editorial content).



Analysis from AdEx India (A Division of TAM Media Research Pvt. Ltd.)

Business Line
INTERNET EDITION

TRP-Edoed

SO, HAS THE advertising industry been sold a lemon all along? And, do their clients, in turn, think it has been a rupee ill-spent on shows that actually have poor viewership? With the lists of 625 households in Mumbai with peoplemeters installed by independent television show-rating agencies being made public through an anonymous source, agencies and clients could well think they have been strung right along. Both research agencies which administer the parallel rating systems — TAM by AC Nielsen and INTAM by ORG-Marg — have been quick off the blocks to refute any suggestions that household viewership patterns have been manipulated in any way. However, confidence in the television rating points (TRPs), the gospel for advertising agencies, has been shaken badly. For, it is on the basis of those points that crores of rupees are sunk in commercials that latch onto the best shows on television.

Consider the figures: There is almost Rs 4,000 crore worth of advertising on Indian television. The top 15-20 ad agencies in the country subscribe to either of the rating systems. These agencies and media-buying houses make their decisions solely on the basis of the TRPs and account for at least 75 per cent of nationwide billings for TV advertising. Which means that at least Rs 3,000 crore worth of advertising is virtually based on recommendations that stem from TRPs. No small beer this. The critical question that agencies are now asking is if the confidential list of households has been released to the media now, how long has it been circulating in the public domain? If the leak had happened a while ago, the repercussions could be severe. It could well mean that agencies have to go back to their drawing boards to dissect the ratings on the basis of which they have made recommendations to clients. Influencing a few households in any city can alter TRP ratings radically, though rating agencies stoutly deny any manipulation, even while conceding the accuracy of the lists.

But is there smoke without fire? Would the anonymous vested interests have released these lists, if they did not wish to expose the fact that peoplemeter-households can be influenced? It may be the tip of the iceberg and more sordid details could well come tumbling out. Already, rival channels are pointing to shows on a particular channel that are receiving top billings week after week. Now that the lid has blown off, ad agencies are also conceding that they who were supposed to be the watchdogs of the ratings systems have not been vigilant of a system on which crores of rupees of investments ride. Committees which comprise agency officials and rating agencies have not met in months. As long as the TRP machine churned out the stuff week after week, nobody questioned the system.

Both the rating systems are on the verge of a merger with AC Nielsen and ORG-Marg planning to join up. Both the agencies have expressed their intention of rehauling the panels entirely. Each has peoplemeters in at least 4,000 households across the country. If the merger results in double the sample size in a single rating system, TRPs could be more accurate than what the

system reflects now. TAM-INTAM would need to work in tandem to restore the credibility of the rating systems in quick time. Otherwise, agencies would again be reduced to making gut-feel decisions rather than ones based on hard quantitative data.

AC Nielsen, ORG-Marg not TRP-ed - To Revamp Rating Panels; MR Agencies to Track Leaks

Our Bureau

NEW DELHI, Sept. 5

DESPITE an impending merger between AC Nielsen and ORG-Marg, the two research agencies have decided to go ahead and revamp the household panels for the TAM and INTAM rating systems respectively.

The move comes a day after lists of households where peoplemeters — the device to record viewership patterns — were made public. This is supposedly confidential data accessible to a select few employees in a company.

Speaking to Business Line, Mr L.V. Krishnan, CEO, TAM Media Research, said, “We are discussing merger plans. But that does not stop us from revamping our panel. We will go ahead with it despite going in for a merger.”

The latest controversy surrounding television rating points (TRPs) will hit Zee the most, for the channel launched a slew of new programmes in the last week of August. According to market sources, the verdict of the audiences on the new shows would have come out within the next two days.

However, what has been bothering the research agencies is the manner in which the leaks happened. Mr Ashok Das, President, ORG-Marg, said in a statement, “The manner in which the lists have been circulated (through an anonymous letter) to the media would suggest that there is a vested interest behind this, who is clearly not happy with independent ratings and wants to discredit them.” The market research (MR) agency is planning to investigate the matter thoroughly.

However, media planners will continue to rely on this data. “TRPs are the currency with which media planners work with and if it is taken away then we would have to regress to the barter system,” said Ms Divya Gupta, Chief Operating Officer, The Media Edge.

“I guess media planners will continue using TRPs. And thankfully, we are dealing with market research agencies which are professional and have international backing. Therefore, we hope that corrective measures will be taken,” said Mr C. Rao, President, Universal McCann.

The fact that the names of subscribers have been made public makes the system vulnerable. “First it was Mumbai, next it could be Delhi. So, it makes the system vulnerable,” Ms Gupta said.

The data is used not only by the broadcasters or the advertisers but even production houses which use the data to find out how well their programmes have been doing.

Mr Ramesh Narayan, President, (Advertising Agencies Association of India (AAAI), said, “The happy part is that there is no evidence of any kind of manipulation. Confidentiality is all-important and since all names are public, there is a need to immediately refresh the entire list.”

The outcome of this is the wake-up call to the industry that any future system should have checks and brakes in it.

The Indian Broadcasting Foundation (IBF) has convened a meeting next Friday with the research agencies, AAAI and broadcasters to sort out the issue of TRPs. The apex industry body had earlier decided to come up with a uniform standards for TRPs. Mr Bhuvan Lall, Executive Director, IBF said, the association will see that corrective measures are taken as soon as possible.

IBF to Set Norms for TV Ratings

Nithya Subramanian

NEW DELHI, April 24

THE Indian Broadcasting Foundation (IBF) is likely to finalise a set of standards for calculating television ratings, at its board meeting scheduled for Thursday.

Sources in the broadcasting industry said that a committee comprising of big broadcasters like Sony, Star, Zee and Doordarshan has prepared the broad framework, which would be discussed at the meeting.

Presently there are two research agencies, AC Nielsen and ORG Marg, which provide data on television ratings, popularly known as TAM and INTAM ratings respectively. “Initially, the IBF had considered appointing a single research agency to provide data,” said an industry insider.

“However with a merger announcement between the two groups internationally, it is only a matter of time before the impact is felt in India. Hence the Foundation may not appoint one agency for TRPs (television rating points),” they said.

Another aspect is the need to broaden the sample base to include the rural population. “With penetration of cable and satellite (C&S) to smaller towns and even rural areas, this section has been not adequately covered,” said sources.

Also, the number of peoplemeters used to measure viewership ratings must be increased. “Currently, there are only a few thousand such peoplemeters and these have to be increased substantially,” said sources.

The IBF had, some months ago, decided to come up with a uniform guidelines as the two rating agencies cover different number of cities and each tracks different profile of people. Standardisation of the basic requirements would help in minimising conflicting data, officials had said.

Uniform parameters are important because advertising agencies rely extensively on such data before making media related decisions. Broadcasters too use the data to decide their programming schedules.

Broadcasters depend on any one of the two research agencies for television ratings. For instance, Star Plus uses ratings given by AC Nielsen-IMRB’s TAM, while Zee banks on ORG-Marg’s INTAM figures.

“But, if the basic parameters are laid out and even if the merger between the two research agencies does not happen in the

immediate future, the results may not be so skewed," said a senior media planner.

This is not the first time that the broadcasting industry has decided to standardise guidelines. Earlier some broadcasters like Doordarshan, Star, the Association of Advertising Agencies of India (3As of I) and other groups had asked AC Nielsen to work out the technical standards and had suggested their ratings as the industry standard.

This initiative is part of IBF's mandate of ironing out differences between the various business interests associated with the entertainment sector. It has already signed an agreement with the 3As of I for a policy on credit to the entertainment sector.

Jassi Jaisi Koi Nahin, But Uski TRP Thik Nahin.

Sudha Nagaraj

Times News Network[Saturday, December 06, 2003]

NEW DELHI : There months after its launch, the 9:30 pm soap Jassi Jaissi Koi Nahin is fast becoming a habit that people rush home to. Recruiting firms advertised for Jassi-like secretaries and Jassi-inspired caricatures were common in the run-up to the polls.

Yet, the serial is not as high up on the TRP charts as it is on the popularity list. Rather than question the credibility of TRP rating. What this discrepancy shows is that TRPs do a disservice to media planners by aggregating regional preferences and losing out on the region-specific popularity of specific programming. Regional popularity, male-female viewership patterns and other details often tell a different story.

"I agree the buzz around Jassi far exceeds the TRPs. But given the time, I am sure the TRPs will follow and reiterate the same thing - Jassi Jaissi Koi Nahin," says a confident Sunil Lulla, executive vice-president, Sony Entertainment Television who is banking on slot performance rating which has risen five times.

Mr Lulla is also encouraged by the 6.7 rating the serial claimed the week ending November 8, though the following two weeks saw the ratings plummet to 5.5 and 4.7 - a fact attributed to cricket matches and which dented most other serial viewerships too. Star Plus ratings for the same slot that week dipped to 9.8, according to TAM Media Express findings.

With a first episode rating of 3.6 which steadily climbed to 5.2 at the end of a dozen episodes people at Sony Entertainment Television (SET) are aware that the enthusiasm for Jassi among viewers has not yet translated into viewership on lines of Kaun Banega Crorepati.

But the plain old Jane is collecting fans for sure. Females aged 15 and above (8.9 TRP for week ended November 8) for starters. Bored urbanites in big cities have also taken a fancy for the simple secretary - TRPs peaked at 8.7 in Mumbai, 9.2 in Calcutta and 7.8 in Delhi .

In smaller markets (0.1 – 1 million) Jassi has bagged the highest ever rating of 13.7 in Orissa while Madhya Pradesh and West Bengal have recorded a peak average rating of 7.2 and 8 respectively.

While Chandigarh, Punjab and Haryana are also kind to her, the real "soapy regions" like Maharashtra and Gujarat have to develop a taste for plain Jassi, breaking free from holier than thou Tulsi (Kyunki Saas Bhi Kabhi Bahu Thi -TRP of 10.1 week ending November 22) and prim and propah Parvathi (Kahaani Ghar Ghar Ki - rated 10.0 on November 19).

On the same day, Star serial Kasauti Zindagi Kay enjoyed a 9.5 rating while Sanjivani won a 8.5 rating.

To prod viewers to make newcomer Jassi a habit, SET has introduced one-hour specials of the half-hour (9:30 - 9:59 slot) serial. The first during Diwali had Jassi (with a TRP of 6.4) denting Star's stronghold KGGK from a four-week average share of 79% to 56% while SET's share grew from an average of 7% to 31%, the Company says.

"It is true that most channels, broadcasters and advertisers bank on the Hindi-speaking markets. But the buzz about Jassi - thanks to innovative marketing has drawn advertisers too," says Mr Lulla.

Other marketing gimmicks like Jassi Pals Club had 2,500 people enrolling while an FM radio poll had Jassi winning over other serial queens.

Viewership pattern is also an area to be understood by you to learn polls. As the viewers are the people who get involved / influence the polls. It is also vital to consider the sponsor/s of the poll or survey. The agency which conducts survey or poll takes money from some source and to know the source is critical to understand the process.

The recent opinion polls and the exit polls for general election 2004 proved to be of no use as they all turned to be wrong if compared with the actual. The same case happened in the assembly elections in Madhya Pradesh, Rajestha and Chatissgarh.

Why was this?

Was the sample size wrong or was the sample segment was wrong. This question has various dimensions and to get to know the answer we need to discuss the process of the polls/ surveys.

But such questions also call for discussions across all media houses.

Notes

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