HANDBOOK
ON RADIO AND TELEVISION
AUDIENCE RESEARCH

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Preface

When we talk to other people we spontaneously think about them, noting their characteristics and watching their responses to what we say. Journalism training is likely to start from the same point: if you want to communicate effectively, you must be aware of your audience; you may not wish to give them what they want, but you will certainly profit from knowing who they are.

Newspapers and other print media automatically receive some feed-back from their audience in the number of copies they sell. This is not the case with radio and television, and programmes are sometimes produced and transmitted at high cost, and often to wide areas, merely in the belief that there is an audience for them. Moreover, it is assumed that these broadcasts has an impact of some kind: this may not be the case since for many people radio and television are nowadays used as background noise to accompany other activities.

Audience research is a tool to overcome this lack of feed-back from listeners and viewers. It can tell a broadcaster that no-one is listening to propaganda or that it is counterproductive. It can tell a producer, that the intended audience is not being reached or that they have misunderstood the message. It can tell a dramatist how surprisingly well audiences have grasped a sophisticated form of audio-visual expression.

The importance of audience research has increasingly been recognized by the electronic medias in the industrialized countries. In developing countries, lack of resources and expertise together with logistical difficulties have often proved insurmountable obstacles to carry out research. This is unfortunate, since audience research can save money by identifying those programmes which are not cost-effective; it is especially regrettable because audience research has a key role to play in communication for development. It is not only an essential tool for information campaigns and educational programmes, which directly support the development process, but also helps the professional broadcaster reflect the needs and preferences of audiences in programme productions. It is an essential part of the dialogue which ensures a more participatory approach to communication.

The BBC World Service has in many countries been a source, if not of that elusive ideal "objectivity", then of that more attainable goal balanced reporting. From its earliest days, the BBC has wanted to know about its listeners. In measuring the size and tastes of its audience, many of whom live in developing countries, and the researchers of the BBC World Service have accumulated formidable experience in conducting surveys in non-industrialized environments.

It was with this consideration in mind that we turned to Graham Mytton, Head of Audience Research at the BBC World Service, to share the expertise of his department in a practical handbook on audience research methods. This Handbook can be used as a training manual, and the methods it follows are not limited to developing countries but may be applied anywhere.

Great communicators, like great artists, seem by instinct to strike responsive chords, often with large audiences and across centuries. The less gifted among us can be helped by sound research on the audiences we have the privilege to address to approach this ideal.

We hope you will find the Handbook useful.

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Acknowledgements

The idea for this book came from Morten Giersing in 1990, when he was working in the Communications Division of UNESCO. UNESCO, which had organised a few regional seminars and conferences on audience research, mainly in developing countries, and had discovered the paucity of suitable reading material on the subject. Most of what has been written falls into two broad categories.

First, there are the mostly empirical studies done by or for broadcasting organisations. There are a large number of books and articles on audience and media research in the developed world, much of it dominated by the requirements of research for the improvement and enhancement of media campaigns through advertising. There is also a relatively small amount of public sector broadcasting audience research literature, almost all of it drawn from experiences in the richer industrialised countries.

The second category is the mostly theoretical and critical studies produced by academic scholars. There is a very large body of literature from academic social sciences. A lot of this is very far removed from the practical day-to-day problems and issues facing radio and television broadcasters who feel the need to know more about their audiences in order to do their jobs more effectively.

There has been a growing interest in audience research in developing countries. It is being seen less as an expensive luxury, nice to have but not essential, and more as an essential requirement. Well planned and well managed audience research can always help broadcasters make more effective use of limited resources. Often audience research can actually save money by identifying those broadcasting activities which are ineffective and resource-wasting.

This is not just a training manual for audience research in poorer countries. The methods and techniques described are valid, amended and adapted as appropriate, anywhere.

As I wrote above, the two broad categories of research in mass communications reflect the uses to which it is put and the requirements of those who promote and finance it. In research for radio and television stations, the way the research is done is largely determined by the need for speedy information about audiences, keeping costs down and the need to provide information on which action and decisions can be based.

Academic mass media research into radio and television and their audiences tends to take a much longer time to produce. It is more concerned with the social consequences of broadcasting and to discover and develop

theories about the processes of communication involved.

There is a rather wide gulf between the two and far too little interchange or cooperation. Some cooperation has been seen in, for example, the effects of violence on television on young viewers, and on the role of broadcasting in education and development. To have addressed these issues in this manual would have made it too long. The subject matter here is mainly confined to the methods used to measure audiences and to probe and understand audience behaviour. Some of the methods described here are relevant for the wider social issues raised by broadcasting. I hope, therefore, the book will be of use not only to broadcasting audience researchers, but also to those in the academic community interested in understanding how the work is done by and for radio and television stations.

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Introduction; The Need for Research

Radio and television are 20th century phenomena. The years between 1900 and 2000 have probably seen more changes in technology than any previous century. The electronic media have played a major part in those changes.

Radio reaches almost everyone, everywhere. It is true that some people still have no regular access to it, but the number is shrinking. Television has also grown rapidly in recent years, reaching many people in some of the very poorest parts of the world.

The world's population in 1991 was estimated to be 5,200 million. It was estimated that there were 2,037 million radio and 964 million television sets. They are very unevenly distributed; while there are more radio sets than people in rich countries like Australia, France, the U.K., Sweden, Canada and the United States, in poor countries like Bhutan, Bangladesh, Guinea Bissau and Burkina Faso, there are estimated to be only one set or less for every twenty people.[1]

There are even greater disparities in access to television. While in some of the richer countries, most households have more than one set, there are 38 countries where there is only one set or less for every 100 people.

There are also great disparities in the development of the two media at the programme and transmission end. The inhabitants of even quite small United States cities usually have more than 20 television and 40 radio stations or channels to choose from. In many West European countries, the number of television and radio channels has increased considerably over the past ten years as both media have been deregulated; that is to say, they are no longer monopolies of the state or public sector. Commercial and other independent operators have been licensed to own and run stations. The same process is beginning to happen now also in East and Central Europe where formerly there was a total state monopoly.

However, at the time of writing, in most countries in Africa and Asia, although there are often private newspapers and other print media, the electronic media tend to be a state monopoly. Now, even this is beginning to change. In Africa in the 1980s there were only six radio or television stations on the whole continent not owned by the state. But in 1990 and 1991 we have seen the beginnings of the end for state monopoly in countries as diverse as Sierra Leone, Burkina Faso, Ivory Coast, Kenya, Gabon and South Africa. Even so, in most African and Asian countries people have little choice of domestic radio and TV service.

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There is great unevenness in the availability of TV and radio channels. In some countries listeners and viewers may have many channels to choose from. In others they may have only two radio and one TV channel.

Despite these and other undoubted inequalities, the two electronic media obviously play a major role in world information. Pictures and reports of events and people from different parts of the globe are carried everywhere and at great speed. During the 1991 war in the Gulf, viewers were able to see pictures of the bombing of Baghdad on television screens or hear reports of air raids as they happened. None of this necessarily means that we are, as a result, better informed than we were before this era of more rapid global communication. Indeed the main impact of the modern mass media may be less in the rapid dissemination of information and more in the wider dissemination of certain ways of seeing the world.

The electronic media may be doing rather more than merely giving information. Some see them as having an unwelcome influence. They are thought to enhance the power of the already powerful. They are criticised for lowering cultural standards and of blurring the distinctive richness of many world cultures. They are seen by critics as promoting false values. They are seen as being dominated by powerful nations or multinational companies and as weakening further the already weak.

There are others who see the modern electronic mass media as leading to greater violence, immorality and disrespect for tradition. They are often blamed for the supposed increase in crime. Many other ills of modern society have been blamed on television - rather less on radio.

At the same time, the electronic media are viewed by others as having mostly beneficial effects. It is argued that they make democracy possible, by widely disseminating the kinds of information people need when exercising democratic choices. They cut across social and economic barriers and provide equal access to educational and other information by which people can improve their own personal circumstances.

It is not at all easy to decide who is right in this debate. Have the modern mass media had mostly beneficial or harmful effects? Put in this bald way, as many so often do, the question is probably unanswerable. The fact is that modern life as we know it could not be imagined without electronic mass communication. The systems of mass communication found in the world today form part of the way in which world societies function. One might as well ask, "Is modern society beneficial or harmful?" A more interesting set of questions arise instead if we think about the media in this way. What role do they play in different societies? How much are they used, for what purpose and by whom? What are the consequences when the media change in some way?

The questions "Who is Listening?" or "Who is Watching?" are surely not unwarranted or even remarkable questions to ask. Certainly the broadcasters need to know something about the people who are watching or listening. In all kinds of human communication activity we think about the person or persons with whom we are communicating. A teacher speaks in a different manner and about different things to first year and sixth year school children. If we speak to someone who does not speak our own language very well we try to make allowances for the fact. We use different ways of addressing members of our own family, the local shopkeeper, the police, subordinates and superiors. Every time we speak, write a letter, make a phone call or write a book like this one, we consider with whom we are communicating. If we don't know, we do a little research. When we meet someone for the first time we tend to ask questions which in various ways help us to continue to communicate by modifying our behaviour in some way, if necessary the way in which we communicate. Have we met before? Have we

certain things in common? Do we share similar interests? What can we ascertain about the other person's attitudes, knowledge or personality that would help us communicate better?

Radio and television broadcasting are peculiar forms of communication. Most of the communicating is one-directional. Broadcasts are transmitted and it is assumed that what is being broadcast is being watched or listened to. But why is this assumption made? What is so odd is that so much broadcasting activity in the world goes on without much effort to find out what is really happening at the other end! If you were a politician and you stood up and made a speech in a large hall full of people and slowly everyone got up and walked out, what would you do? What would you do if everyone started talking among themselves ignoring what you were saying? You would surely either stop talking or you might try to change what you were saying or the way in which you were saying it and attempt to attract everyone's attention. You would change what you were saying, or perhaps you would stop talking altogether in sheer embarrassment! You would certainly soon feel very foolish if you continued to talk without any change, unless you were extraordinarily thick-skinned! And yet, a not inconsiderable amount of radio and television broadcasting in the world is like this, especially in countries where there is a monopoly or very little competition. It continues inexorably, but no one troubles to find out if anyone is listening or viewing.

Audience Research is more than a matter of knowing if anyone is listening or viewing. Who is the programme intended for? Are *they* listening or viewing? Do radio broadcasters, living in the cities, know what time to broadcast to farmers? They might think they do, but experience shows that without research they can get it wrong. If programmes are aimed at children, are the children actually being reached?

Broadcasting is one of a range of goods and services available to the public, and it is one of the few such services which is now universal. But unlike most other goods and services, there is no equivalent to sales information. If you are selling soft drinks, you can easily find out on a yearly, monthly or even daily basis how many cans or bottles are being sold. If you are running a hospital, you can find out from your records how many people have been admitted over a given period of time. If you are running a bus service you can add up the tickets you have sold. Newspaper proprietors can count their sales. But broadcasters have no such easily obtained evidence of consumption or use. But that doesn't mean it is not needed. Nor does it mean that it cannot be obtained.

Radio and television, in the less developed countries as well as in Europe, are often funded out of taxation or licence revenue. In this case they are expected to provide a public service, serving the interests of the whole of the tax or licence paying public. But how can a public service broadcasting station receiving public funds show that it is doing this unless it does audience research? Part of a public service station's purpose will usually be to serve certain minority interests. This also needs to be researched so that it can be established that those requirements are being met satisfactorily.

In the United States, Latin America and increasingly in Europe research is essential if the main source of funds for broadcasting is advertising and programme sponsorship. How much should different time slots cost the advertisers? How many people and what kind of people are listening or viewing at different times and to which programmes? Which is the best time to advertise if one wants to reach housewives? What is the channel listened to most by professional people?

There was a time when, even in the richer countries, audience research was not at all widespread. Broadcasters in the early days of radio in Europe and the United States knew remarkably little about their listeners. What they thought they knew was based on very unreliable and misleading methods.

In the very early days of radio in the United States, there was no systematic audience research. Very often it was the personal likes and dislikes of a prospective commercial sponsor - most U.S. broadcasting was and is paid for by advertising - which determined what went on air. An advertiser might sponsor a programme because of his own tastes and preferences.[2]

The first form of measurement used in the United States to guide programming was obtained by counting the number of letters elicited by programmes. Other "measurements" used by broadcasters in the early days were no more reliable. Some radio station managers used to draw a circle on a map with a hundred-mile radius about the station and determine the number of people who lived within that circle. But such a procedure is entirely meaningless so far as measuring the audience accurately was concerned. Differences in power, local geography, station programming, wavelengths, and numerous other factors are known to influence the size of the populations habitually reached by each station.

Broadcasting also began in Europe in the 1920s. In Britain, radio broadcasting began in 1922, first as a service for the purchasers of the new wireless sets provided by a consortium of manufacturers. This was very soon turned into a public corporation, the BBC, which was given a Royal Charter to provide radio transmissions of education and entertainment as a public service. There was no commercial broadcasting on radio in Britain until 1973. The BBC had no audience research for more than ten years after its establishment. Audience research did not begin without an argument.

"I cannot help feeling more and more strongly that we are fundamentally ignorant as to how our various programmes are received, and what is their relative popularity. It must be a source of considerable disquiet to many people besides myself to think that it is quite possible that a very great deal of our money and time and effort may be expended on broadcasting into a void. " (Val Gielgud, BBC Productions Director, 1930).

"I do not share Gielgud's view on the democratic issue. However complete and effective any survey we launch might be, I should still be convinced that our policy and programme building should be based first and last upon our conviction as to what should and should not be broadcast. As far as meeting public demand is concerned, I believe that the right way is to provide for a more conscious differentiation of objectives within our daily programme. " (Charles Siepmann, BBC Director of Talks, 1930).[3]

These two points of view are not actually impossible to reconcile. Audience research does not aim to tell programme makers what to do. Gielgud's views were actually shared by many programme makers who felt the need to have some more reliable information on the growing audience. This information would help them to do their jobs better. It would also help those in management allocate resources better to meet their public service obligations. Siepmann's remarks seem to have been more in the nature of a caution against over-reliance on quantitative audience research since, according to the founder of audience research in the BBC, Siepmann became a firm supporter from the early days.[4]

Audience research was formally established within the BBC in 1936. Its role has, from the outset, included that of serving as an instrument of public accountability as well as providing an information system for programme makers and management. It is also involved in a large number of special studies on particular contemporary broadcasting issues which help the corporation decide on major policy issues. This function has been especially important in recent years as the broadcasting scene has changed so rapidly in the UK.

In the United States the process was completely different. American radio was, from the beginning, guided by one fundamental principle: people are attracted to listen if

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they get programmes they want. All American audience measurement has derived from this basic marketing principle. Through it, the broadcasters attempt to furnish people with the programmes that sufficiently large numbers of people will want to hear, not with programmes which someone thinks they ought to listen to. And so the determination of the programme preferences and desires of the general public, or of target audiences within it, is the basic function served by radio and TV audience measurement in any broadcasting system run on commercial lines. And this principle has in turn been modified by uneven consideration given to those preferences and desires. Programmes that attract large numbers of people with spending power are more likely to attract advertising and sponsorship than those which reach smaller numbers of people, or people with less spending power. Programmes for the old, the poor and for minorities are less likely to receive commercial backing. This is a fundamental difference between public service and commercial broadcasting and this difference is reflected in the outlook and approach of audience research.

But are these the only reasons that broadcasters need to know who is listening? Is it just a matter of attracting advertising or of justifying the way public funds are used? There is much more to audience research than these, important though they are.

Some people in broadcasting, especially in public service or state-run radio or television, are suspicious of research, especially research using the methods of market research. Their view is one I frequently encounter. "How can anything which helps those who are interested only in selling more soft drinks, cosmetics or baby food possibly be of interest or value to those of us who are keen to use broadcasting for the real benefit of people?" It is a profoundly short-sighted view. Whatever we may think about the activities of commercial firms which seek to maximise their sales and profits, sometimes perhaps unscrupulously, we have to recognise that the techniques they employ do actually work. Advertising clearly brings results, otherwise very large sums of money would not be spent on it. It doesn't always work in the way intended. Indeed many expensive campaigns fail to achieve the intended results. The sums spent on advertising in the rich industrial countries are very large indeed. And because some advertising is seen to fail, large sums are spent on research designed to discover the most effective means of advertising. Can these methods not be used too in ways to more general human benefit? The same techniques can of course be used to improve and make more effective any kind of communication on radio or TV. If the need is to improve broadcasting to farmers, or broadcasts to improve public health, infant nutrition, adult education, or anything else, research can be used in the same way. Just as it can maximise the effectiveness of advertising cosmetics, it can also do the same for more worthwhile communications activities.

Audience research can be used as a means of maximising the effectiveness of public campaigns, and of improving and enhancing education and information for effective democracy and good government. Audience research is a means of providing essential information to aid the creative process of programme making. It can be used as a means of maximising the efficient and cost-effective use of limited resources. And it can be used to test if the objectives of any educational or information campaign have been successful.

The objective may be a simple one; to increase awareness of a consumer brand - a new soft drink or a washing powder - or to make people aware of the dangers in drinking water from polluted sources. In both cases, messages via the media can be shown to increase awareness. It becomes far more complicated and difficult to test the effectiveness of advertising or educational promotion in changing people's purchasing or domestic behaviour.

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The Methods of Audience Research

Audience Measurement or Quantitative Research

This is the core activity of any broadcasting audience research and the one into which most effort is put. How we can find out how many listen to or watch which services, which programmes and at what times?

I am often asked "How do you know how many listeners or viewers the BBC has for any of its programmes or services?" There is no great mystery about it! In Britain, my colleagues in the domestic audience research department have well-established methods by which they can calculate how many listen to or watch BBC and other programmes at different times and on different days of the week. In the World Service we are unable to carry out research with the same degree of regularity but are nonetheless able to say a lot about audiences for the different language services transmitted to many parts of the world. When audience measurement is carried out according to certain principles it is usually possible to make reasonably accurate estimates of the numbers of listeners or viewers to different services, the times that they listen or watch and the number of minutes or hours spent watching or listening. Research can normally provide information about the kinds of people who form the audience for different programmes at various times in the day and so on. Research of this kind carried out over a period of time can plot trends in audience behaviour. It can show whether new programmes have increased or decreased audience size, whether new services have achieved their audience target objectives or whether there are long-term trends which need to be taken account of in future policy.

How is this done? The principles of audience measurement are not complex or difficult to understand. What we do is select a sample of the population and ask appropriate questions about television viewing or radio listening. There are various ways of doing this but before describing them, let us look in some detail at the principle and practice of sampling. How can a sample represent everyone?

Sampling: Theory and Practice

The principles of sampling used in audience measurement are shared by all branches of social, market and opinion research. Those principles are also used in everyday life. Experience tells us that we can draw conclusions from a few chance observations. In a market we might buy and taste an orange to see if it is ripe and sweet before buying a quantity. The farmer opens a few cobs of maize to see if a whole field is ready to harvest.

It is important to choose our examples with some care. We might pick the one orange out of a whole pile which was not sweet. The farmer would be foolish to select a couple of

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maize cobs from a corner of the field that was obviously ahead of the rest.

The principle of sampling is to remove bias as far as possible so that the sample we select is as representative of the whole as we can make it. It doesn't mean that it will always tell us the whole story; there are always going to be some differences between the characteristics of the sample and those of the universe. We can reduce the magnitude and likelihood of the differences by increasing the size of the sample; the more oranges we taste, the more maize cobs the farmer opens, the more certain we can be that the qualities represented by the sample are true of the whole lot; in other words, that the unsampled items will be the same.

The problem is that increasing the sample doesn't increase reliability by the same proportion. Interviewing 200 people in an area containing many thousands of people does not give us information twice as reliable as interviewing 100 people. For those who can understand statistical concepts, samples increase in reliability only in proportion to the square root of their size. So a sample of 100 (square root 10) would have to be increased to 400 (square root 20) to be twice as reliable.

The point to remember is that a lot of valuable social research is based on a law of statistical regularity which states that a small group chosen at random from a large group will share much the same characteristics. This is an important principle. Imagine the cost in time and money if sampling couldn't be relied on to represent reality, we had to contact and interview everyone!

Sometimes it is necessary to contact everyone and not to sample. Most countries have censuses of their entire populations. Many countries have a census every ten years. The main reason for a comprehensive count of everyone within a defined geographical area is to record reliable information on a given date. But it is a very expensive activity and is really necessary only when it is a matter of accurately counting whole populations.

The acquisition of this information then assists the sampling of the population between censuses. Indeed, one of the most important aids to good sample survey research, including radio and television audience measurement, is an up-to-date and reliable census with detailed information on population size and distribution, age and sex composition, educational level, type of dwelling and other similar data. You can more easily take a sample and, above all, check that your sample really does reflect the population as a whole by having access to these important demographic criteria.

Public opinion polls are a well-known example of the use of sampling to find out about the population as a whole. In a general election, everyone of voting age is able to record his or her vote. But it is not necessary to have an election to know about public opinion. Between elections we can find out the state of political opinion by selecting and interviewing a sample representative of the electorate as a whole. This is done regularly in most democratic countries.

Defining the "Universe"

In social and market research we don't always sample the whole population. Often we sample people in various smaller "universes" or populations. Sometimes they may be clearly and relatively easily defined, like, for example, pupils at a school, adults in towns with more than 20,000 inhabitants, members of a town or village council or all women in a village aged 15 and over. Such definitions are straightforward and it is usually easy to determine who is included and who is excluded in the population under study. Some populations are less well defined and may be constantly changing. Just, for example, think of the following as subjects for study - the homeless population of Calcutta, the unemployed of Lagos, the rural poor of Sudan, Afghan refugees, displaced forest people in Brazil. Obvi-

ously some decisions have to be taken by the researcher to help define these shifting populations precisely enough to make sampling possible.

Most audience research involves whole populations of adults and children down to a certain defined age. Sometimes, for practical reasons or because of the requirements of the research, the universe will be confined to urban areas. Sometimes only rural areas will be covered, sometimes in one region.

Selecting a Representative Sample

In audience research we are most often involved in selecting samples of the whole population. The process of selection of a sample of the whole population is difficult. What is important is to ensure that the selection is not biased more than can be helped. To a large extent the success of any piece of research based on a sample survey depends on how representative is the selection you make.

Let us use an example of sampling from industry. A company making light bulbs needs to know how reliable its manufacturing process is. Batches of light bulbs are selected to be tested and the proportion failing to meet the required standard will be noted. The company will have set a minimum standard of quality and reliability. If the selected sample does not meet this standard, it is assumed that this is true of the rest and the whole output of that production line may be rejected and the machinery stopped for investigation. It is obviously crucially important that the selected sample of light bulbs is taken in such a way that it can be relied on to be representative.

Obviously we could test all the light bulbs but this would be time-consuming, expensive and pointless. If, after taking a representative sample of them, we find, say, 95% of them reach the required level or standard, we can predict with some confidence, that 95% of the rest reach the same standard.

(How confident we can be about such predictions depends on the size of the sample).

It is worth noting that this method is used in most mass production processes to monitor performance. In the same way we need to ensure representativeness when sampling people. Sampling is the process of selecting people (or things) to represent those who are not selected.

The Sampling Frame

The universe is often defined in the process of selecting a suitable *sampling frame*. An electoral register is an obvious sampling frame used when one wants a sample of electors. All the electors are listed there. The register is what qualifies them.

In each case we need to know what is the relationship between the population we want to study and the sampling frame. Does the sampling frame adequately cover the population we are interested in?

Street maps may be viewed as adequate sampling frames, especially when they show dwellings, except for three major weaknesses. First of all, maps are very soon out-of-date and omit new developments. Also they tend to omit illegal, unplanned, "squatter", "informal" or temporary housing areas. The third weakness is that they often give no indication of housing or population density. Thus one could select ten people from one street which had over 1000 people living on it and ten from another with only 50. The two streets may even have the same number of houses or buildings, but the population density is different.

Sampling frames need careful scrutiny. Do they include what you want to cover? How up-to-date are they? Do any parts need to be excluded to achieve what is required?

Very often no sampling frame exists. In many parts of the world there are no electoral registers. Maps will be non-existent or hard to obtain and, of course, many may be

out-of-date. Other information may be lacking. Very often you have to create an adequate sampling frame yourself.

If you want to sample the population of an unmapped village or group of villages it helps to draw a sketch map of the area, noting where houses are, where they are clustered and where they are scattered. You will need to draw the boundaries of the area you want to study. What do you use? There are political boundaries of course and these can be very useful. Often they will coincide with the enumeration areas of the census. So you will have information on how many people live in the area. Sometimes, both these will not be readily available and you need to make a sensible, practical decision. The geography will often make the choice quite easy. Rivers, ranges of hills, empty land and other physical features often make natural boundaries. If you don't have accurate population figures this need not be a major handicap. Adequate sampling is still possible. The sampling frame need not be very complex or take a lot of time to create.

Random Samples

These are theoretically the most accurate form of sampling. It means that every individual in the area of your survey has an equal chance of being selected. If you could list the entire adult population of your country, and could select names entirely at random, find these people and interview them, this would be a true random sample survey. In practice this is never done, at least not in an entire nation! It would be extremely time-consuming, expensive and pointless.

What happens usually is that we divide the country into sampling areas and draw up a sampling plan for each in accordance with what is known about the population in each. Existing administrative boundaries are useful for this purpose. Usually we will use the population size in each area to determine the number of people to be selected in each. Thus, for example, if we were carrying out a sample survey of adult Tanzanians, our "universe" would consist of about 15 million people. We may decide that a sample of 3,000 can represent the whole country's adult (15+) population. We would need to determine from the last census what the distribution of our universe was between the different districts. A sample of 3,000 in a universe of 15 million means a sampling fraction or ratio of one in five thousand.

One in five thousand adult Tanzanians would be selected to represent the population as a whole. In a district of 500,000 people, 100 would be selected to be interviewed. In a district of 100,000, 20 would be selected, and so on. In practice we often over-sample in sparsely populated areas and make adjustments to the data in the analysis stage in a process called "weighting". But how are respondents selected?

A very common method of sampling in a sample survey of the population is to use a *random walk*. In a given geographical area the person selecting the sample for interview may start at one house and select a respondent. After the completion of the interview, the interviewer may be instructed to select the next house after a given interval, then to turn left at the next junction and select another house at a further given interval, and so on.

But who is to be interviewed at each house? Researchers need to be careful not to interview only the first person met. At each house the person contacted will be asked how many people aged 15 years and over live there. One of these is, by random, selected for interview. If the person is not present an appointment should be made and the interviewer will return later to complete the interview with the selected person. It is very important to get this process right and to avoid the risk of interviewers biasing the sample. The best way of doing this is to use what is known as the Kish Grid. When addresses are selected, each is assigned a number from 1 to

12. When the interviewer meets a member of the household he or she then lists all the eligible people (i.e. of the required demographic characteristics -it may be everyone aged 9 and over). All of one sex are listed first, then of the other, from the oldest down to the youngest. Using the grid reproduced here, the interviewer reads along the row corresponding to the household's assigned number until they reach the column giving the total number of eligible people in that household. The number at that point indicates the number to interview.

Address Serial Number	Number of listed persons					
	1	2	3	4	5	6+
1	1	2	1	4	3	5
2	1	1	2	1	4	6
3	1	2	3	2	5	1
4	1	1	1	3	1	2
5	1	2	2	4	2	3
6	1	1	3	1	3	4
7	1	2	1	2	4	5
8	1	1	2	3	5	6
9	1	2	3	4	1	1

Thus if we are at address number 7 and there are five eligible people we interview the fourth person on our list.

Random sampling can be complex, time-consuming and expensive. It would be prohibitively expensive to conduct a pure random sample of the population of a country like, for example, India. On the basis of census figures a random selection of enumeration areas and people in them could be made. This would have to be followed by an extremely expensive task of finding each of the people chosen. The simplest way around this difficulty is to stratify the sample.

Stratified Random Samples

The sampling frame at first would be divided up by type of area. We might choose to divide India into its states. Each has a known population. In each, areas could be listed by population density. For example, cities of more than 1,000,000 could be one category. Cities and towns of between 100,000 and 1,000,000 could be another. Towns of between 10,000 and 100,000 could be another. The last category could be towns or villages of less than 10,000 people. Cities, towns and villages or areas could then be selected in each of these categories to be representative. One might choose a selection in each category for subsequent sampling. This is in reality a form of stratified sampling sometimes called cluster or multi-stage sampling. It is used when it is impractical for researchers to go all over a country to carry out research. A selection of villages, towns and cities may be chosen to represent others.

If we return to our earlier Tanzanian example, the point can be illustrated further. Our sampling fraction was one person in five thousand. In an area of five thousand adults, one would be interviewing one person. But that would be time-consuming and probably pointless. What we do is to group similar areas together in our sampling frame and select one to represent the others. Thus in an area of similar sized settlements one would group many together to add up to a larger number. Then one or two places may be selected to represent all. So if together the population adds up to 150,000 one would select one or two sampling points and select 30 respondents there to represent all the adults in the cluster.

There are dangers in this approach of course. One must be especially careful if the population is made up of many distinct ethnic or linguistic minorities. In audience research, such differences can of course be major factors in media behaviour. If such differences exist, the stratification *must* take them into account. Deliberate stratification can ensure people

from all significant groups are included. This is one way in which careful stratification of samples can improve on pure random sampling. The latter can exclude or under-represent important minorities.

Stratified sampling, which may or may not be clustered, is thus especially appropriate when the population being studied is very varied or heterogeneous. Random samples are more suitable, especially if the sample is not a large one, when the population is homogeneous - that is, it doesn't vary a great deal socially, racially, ethnically or in other major ways. A random sample may not always be relied upon to provide enough cases reflecting all the major demographic differences in the population. A stratified sample may be a better method to use to ensure full coverage. We gave the case of India to illustrate a stratified sample which would ensure representative sampling of different sizes of communities from the very big to the very small. India would first be stratified by community size. Stratified sampling by ethnicity may also be necessary if we are to ensure that all the different ethnic communities are covered in a sample, simply because ethnic groups tend to live together. We find in many countries that there is a clustering by race, religion, nationality, economic status and even by occupation. For example, charcoal burners tend to live in certain parts of Zambian towns.

No one population cluster is quite like the entire community and consequently no one cluster can represent it accurately. Information must be secured from each cluster to provide a faithful picture of the whole. Experience is a good guide. Within each cluster the methods of random sampling can then be used. If the samples are taken in each case proportionate to the respective population sizes, the results can be combined together. If different sampling ratios are used, the results will have to be "weighted", that is, corrected mathematically to restore the proportions in the overall sample to match the population as a whole.

Quota Sampling

Commercial market research companies often use quota sampling when interviewers will be instructed to look for fixed numbers of respondents of different categories or types. The categories are calculated in quotas and are usually of sex, age, housing type, social class, occupation and similar. The problem with quota sampling is that interviewer bias comes in. With the other methods described, the interviewer is given a strict scheme of selection and does not have any choice of his or her own about whom to interview. Another bias is that quota sampling is often done on the street or elsewhere away from home and people who are rarely out and about have little chance of selection. Also interviewers may be tempted to leave out those who look as if they are in a hurry or select only those who look friendly and approachable.

There are various ways to eliminate this kind of bias, by varying the place of interviewee selection, by doing some interviewing at homes or places of work, or by starting a survey by a random method and then checking what quotas have been filled and what categories are still to be found.

This is the method I employed in Zambia in 1970-72 when conducting mass media audience surveys. The method employed was a hybrid - it had elements of randomisation, stratification, cluster and quota methods! First the country was stratified by geographical area - rural and urban districts. All districts were visited and quotas drawn up for each, based on the 1969 national census. Within each rural district, census enumeration areas were chosen at random and interviews were clustered in each. Urban districts were stratified according to types of housing or settlement - high density "legal" or "legitimate" housing, low density housing, and squatter or shanty areas. Using a random process of selection, houses were visited and quotas were used to select members of each household for interview. The resulting sample

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matched the census data by age and sex, which were what the quotas were based on. When the sample was complete we were able to see if it matched in other important details. We checked if it matched the language or ethnic composition of the country and found that it did so within a few percentage points. We achieved a representative sample fairly simply and effectively by reducing, as far as possible, interviewer bias. Quota samples are widely used in commercial market research with careful checks and procedures to reduce or eliminate interviewer bias. The advantage of quota sampling is that time and cost are considerably reduced.

More on Sampling

The intention of this book is mainly to outline methods of audience research. There are more comprehensive and detailed books on the details of sampling which those involved in field work of this sort should study. A list of suggested titles is given in the bibliography.

The Questionnaire: The Art of Asking Questions

Designing a Questionnaire

Even the most carefully selected sample will be to no avail if the questions asked are badly constructed. Questionnaire design is a skill that is not quickly learned. But there is a logic to it that can be used to ensure that the information being sought is provided unambiguously and in a way that can be codified and analysed.

The problem is simply put but only with some difficulty is it solved! Human behaviour is wonderfully varied and complex. No two people are exactly the same, even in their television and radio consumption behaviour! Audience research seeks to aggregate the behaviour of thousands, even millions of people and group them into different categories. The questions are designed to put people into categories that make analysis possible. They also need to guide people to answer. Vagueness helps no one. If you ask the question "What radio station or stations do you listen to?" the respondent may or may not mention all the stations he or she hears. And what is meant by "listen to"? When do we mean? The respondent may assume you mean a period of time not mentioned in the question and not intended.

We need to ask this question in a different way depending on whether we are involved in a one-off survey or something which is going to be a part of continuous research. If the survey is unlikely to be repeated soon, we need to ask questions about *habitual* behaviour. This is not easy. It may be that the interviewee does not recognise habitual behaviour in him or herself. Questions can instead be asked about media behaviour on the previous day. This is a common technique in continuous research when the survey is repeated on a regular basis. A picture of the behav-

iour of the population as a whole is painstakingly built up by taking a series of "snapshots" of, for example, radio listening behaviour, by asking a large number of people what they listened to on the previous day.

You can ask the same questions in different ways and get different answers from the same person. Here is an extract from a British TV comedy series. It's a conversation between two senior civil servants demonstrating how an opinion poll could give exactly opposite results on the same issue:

Sir Humphrey: 'Mr. Woolley, are you worried about the rise in crime among teenagers?'

Woolley: 'Yes.'

Sir Humphrey: 'Do you think there is a lack of discipline and vigorous training in our Comprehensive Schools?'

Woolley: 'Yes.'

Sir Humphrey: 'Do you think young people welcome some structure and leadership in their lives?'

Woolley: 'Yes.'

Sir Humphrey: 'Do they respond to a challenge?'

Woolley: 'Yes.'

Sir Humphrey: 'Might you be in favour of reintroducing National Service?'

Woolley: 'Yes.'

Sir Humphrey Appleby then poses some different questions. See what happens!

Sir Humphrey: 'Mr. Woolley, are you worried about the danger of war?'

Woolley: 'Yes.'

Sir Humphrey: 'Are you unhappy about the growth of armaments?'

Woolley: 'Yes'.

Sir Humphrey: 'Do you think there's a danger in giving young people guns and teaching them how to kill?'

Woolley: 'Yes.'

Sir Humphrey: 'Do you think it wrong to force people to take up arms against their will?'

Woolley: 'Yes.'

Sir Humphrey: 'Would you oppose the reintroduction of National Service?'

Woolley: 'Yes.' [5]

No reputable researcher would ever ask such leading questions, nor would they "funnel" questions in this way, leading the respondent inexorably towards a particular answer.

This is, of course, an extreme example to illustrate the point, but it shows how sentence structure and certain emotive words can affect response. Tone of voice, not reproduced on the printed page, is also a major factor. There are many examples one could give from market and opinion research experience where results are biased by the way questions are asked.

The following questions were used in a recent survey of households in Delhi designed to find out viewers' reactions to newly introduced cable television (CTV):-

1. Some of the CTV feature films contain sex/violence which affect the minds of children. What is your opinion about this aspect of CTV?

2. Do you think that exposure to such a large number of films (through CTV) with excessive sex/violence will affect the moral/ethical values in our society?

1. Yes   2. No   3. DK/Can't say

3. It is generally believed that indiscreet showing of foreign films on CTV without removing objectionable scenes/dialogues (unlike Doodarshan which shows only classical/award winning foreign films and even removes some objectionable scenes) is a direct invasion on our culture. What is your opinion about this?[6]

What is wrong with these questions? Many may agree that films containing sex and violence should not be shown on television. But the purpose here is to discover if viewers watch such films and what their opinions of such films are. The respondent is told what to think! The first two questions are very difficult to ask in a neutral way, but the effort must be made if the results are to reflect true opinions and not be what the respondent feels he or she is expected to say.

The third question is very biased. A better way would be to offer a range of opinions and ask the respondent which he or she agreed with.

The list could be longer. The point here is that the questions can contain a *variety* of different opinions which the respondent is invited to agree or disagree with. This is a more reliable way of finding people's opinions without the questionnaire influencing them unduly. Here are some possible opinions to put to respondents:

- Films often contain scenes which I find offensive.

- Films containing scenes involving sexual behaviour should be edited out before showing on TV.

- Films containing scenes of violent behaviour should be edited out before showing on TV.

- Films should be shown without any censorship but with due warning of what to expect. The viewer can decide whether to watch or not.

- Foreign films provide entertainment and variety and I welcome the freedom to choose myself what to view.

Note that these opinions range from liberal to favouring censorship.

It is very important that thorough attention is given to the design of the questionnaire - its layout, the order and the wording of the questions. It is often the stage in research which is most neglected. Sometimes the faults in a questionnaire are very obvious and would be noticed easily even if the researcher had simply tried it out on someone! And it is usually essential for a questionnaire to be pilot tested before use in the field. Good, logical layout also helps the interviewer.

What goes into the questionnaire is determined by the purpose of the research. If the problem under investigation has been clearly defined, this is a good start. And while at this stage one does not need to question the basic objectives of the research, it is not too late to examine the need for each specific item that may have been called for. The designer of the questionnaire needs to keep a balance between how many questions are required and how many can be safely included. If the questions are too few to cover the requirements of the research, the project will fail. But it will also fail if the questionnaire is so long and complicated it wearies either the interviewer, interviewee or both. There can be a tendency to "play safe", to include everything that *might* be needed. The real skill is to thin questions down to those which are essential to meet the research objectives. Generally speaking, the accuracy of replies declines as questionnaires get longer. Opinions and practices vary; in my view and from my experience I would try to avoid a questionnaire which takes more than 45 minutes to answer, and one should plan for this to be a maximum, rather than an average.

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Questions Before Asking Questions

There are four important questions for the designer of any questionnaire:-

1. Will the question be understood by all respondents in the same way and give the meaning intended?

2. Will the respondents know the answer? Can you reasonably expect them to know?

3. Will the respondent tell the truth?

4. Will the question, as put, provide the information intended?

Only if the answer to each of these questions is "yes" should the particular question be used. If you are not sure, pilot testing will provide the answer.

Often in audience research, as in other branches of market research, you need to know respondents' levels of income in order to categorise them according to their level of wealth . Let us consider the question or questions to ask. Remember that the same question needs to be addressed to both the very rich and the very poor and all levels in between.

You might think the question "what is your current income?" would be acceptable. But what will the respondent suppose "income" to mean? Is it household income? Do we mean cash only? In many societies, cash is not the best indicator of real income, especially, for example, among peasant farmers.

The problem is that unless you make it quite clear what you mean, the definition of income will be provided by the respondent and there will be uncontrolled variation in how people answer. A way around this problem can be to ask those in paid employment about cash income and then to ask all respondents about their other means of income in cash or

kind. The question or questions used will need to reflect the local situation. This is a good example of the importance of pilot testing and of thinking carefully about the meaning and purpose of each question.

Not All Questions are Answerable!

We should avoid asking questions that should not be asked. It is amazing how often this happens, even in areas where there is a lot of experience in survey research. Most common of all is the question which requires a respondent to remember something in great detail. In Europe it is common practice in audience research to ask detailed questions in surveys about what respondents listened to yesterday. Respondents are taken through the day in clearly defined time "slots", sometimes each as short as five minutes. But will this practice work everywhere? An experienced European research agency tried to use a five minute by five minute aided recall questionnaire to measure radio listening yesterday in a West African city. But there is far less attention to precise clock time in most African cultures than in Europe and the respondents cannot be expected to remember with this degree of precision what they were doing and when, on the previous day. The research produced results, but it must be seriously doubted if these reflected the true picture.

Questions asking people in great detail about something in the past may be a waste of effort. How far back is it reasonable to expect people to remember things with a fair degree of accuracy? And does this vary according to culture and tradition? Generally, accuracy declines with the length of the period of recall. People remember what they did on the previous day better than what they did on the day before that, and so on.

This is an important issue for questionnaire design in radio and television research because it is likely that some recall or memory questions will often be used, probably more

than in other forms of opinion and market research. But we must not expect too much of our respondents' memory.

The degree of detail required may determine the length of the recall period. As has been noted, it is a common practice in Europe to build up a picture of *daily* radio listening by asking respondents in a face-to-face interview what they listened to on the previous day. With the assistance of the interviewer, most people are usually able to build up quite a detailed account of what they heard on the radio the previous day. It greatly helps if the interviewee has a detached list of times of programmes and programme sequences on the different networks on the previous day. But to ask the interviewee to remember the same degree of detail for the day before yesterday would increase the difficulty. Both the difficulty and inaccuracy increase the further back you attempt to get the respondent to remember.

In audience research we often need to measure media behaviour on different days of the week. We need, in effect, a lot of different "yesterdays". This is a problem in radio audience research met in one of two ways. One way is to carry out interviews with a sample of the population every day. But this is an expensive option. An alternative is to leave self-completion diaries. These are, in reality, self-completion questionnaires, with the respondent asked to note what times he or she listens to the radio over the next few days, to what network, and so on. Listening (and viewing) diaries are in widespread use in countries where there are high levels of literacy. But self-completion questionnaires are hampered by low literacy in many countries and are unusable for this reason. For most of the world we are left with the face-to-face technique and the need to design a questionnaire that will have to suffice. In audience research, it may not be possible to obtain accurate or reliable information about day-to-day listening habits from a one-off survey. But if we consider what it is we really need to know,

we can ask for example, "Have you heard programme X on the radio in the past seven days?".

Types of Question

There are many things that the designer of a questionnaire needs to know. Some are well-known rules or guidelines. Others will be learned through experience; what works in one culture or society may not work in another. A questionnaire is itself a cultural product; it is very important to make sure it is appropriate to the social and cultural context in which it is used and does not import assumptions and even values and implied opinions from another context.

Broadly speaking, there are seven kinds of question.

Open-Ended or Verbal Questions

The expected response with these questions ranges from a single word or phrase to an extended comment. The advantage of these questions is that they can elicit a wide range of responses and reflect a true diversity of opinion and behaviour. One disadvantage, among many, is that they are then difficult to analyse. When you have all the answers they have to be categorised in order to produce some kind of summary of response.

Another problem is that there is a high risk of interviewer bias creeping in. When the questionnaire allows any answer to be recorded, the interviewer may not have either the time or the space to record all that the respondent says. The interviewer has to summarise the reply. This means interpretation and that inevitably means a bias.

This always used to puzzle me in my early days in research. Surely designing a questionnaire to provide maximum autonomy of response did exactly the opposite! Wouldn't you think that the favoured alterna-

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tive of providing a list of answers imposed a biased pattern of response?

There is certainly a danger of bias in providing a prearranged list (see the next section) of possible responses. The list is a simplification of the reality which is a multitude of individual views. But with an open-ended question, the interviewer has either to interpret and summarise what was said or take down a verbatim account. If it is not verbatim, there will be bias from the interviewer's own perceptions and expectations.

Open-ended questions are often used in a pilot test to provide the list of likely responses to be used in the final questionnaire.

However, there is another important use of the open-ended question. It is often important and valuable to give people the chance to express themselves freely on the topic being researched and they may well have something to say which is not covered by the structured part of the questionnaire. An open-ended question may be a valuable "safety-valve" for the expression of strong opinions. This technique can be used at the end of a questionnaire when interviewees often welcome the chance to express views freely. It may not be necessary to code these responses for analysis, although they may be of considerable interest.

"List" Questions

Here a list of answer options is offered, any of which may be chosen. Sometimes only one answer can be chosen. For example, a question may ask for the respondents' actual educational level - usually by asking at what level he or she left school or college. To avoid ambiguity the question asked is usually something like "What was the level you reached in education?" The interviewer has a list of all possible levels from no education to university degree and marks the response accordingly.

Some lists can be far less precise. For example, following a pilot questionnaire using

an open-ended question we will have a number of possible responses. The various responses are noted down in as much detail as possible. These will give the questionnaire designer the range of likely opinion. The five or ten most common responses, simplified and summarised, can be listed on the final questionnaire. This removes as far as possible interviewer bias and has the advantage of uniformity of meaning making comparisons possible. There will still be a space for those answers which still do not fit the list. (Some examples are given of these in the Appendices.)

The number of possible answers on the list can be varied. A smaller number of possible answers distorts reality more but makes interpretation easier. As noted elsewhere, we attempt in research to generalise and summarise the infinite variety of human behaviour and opinion in order to understand it better and be able to predict it more accurately. But all forms of quantitative research by questionnaire attract the legitimate criticism that they distort reality. They do, but only to make sense of it! This is the paradox of all quantitative research.

Sometimes in a list question, the respondent may be able to choose more than one answer. This should be clearly indicated on the questionnaire. For example, listeners may be asked to give reasons for not listening to a certain programme, or for liking a new TV series, etc., and not just the most important reason. All respondents may be asked what equipment to hear or view broadcasts they have - portable radio, car radio, television, satellite dish, video recorder etc.

Category Questions

These are a variation on the list questions. Sometimes the variety of possible responses is too great and so the questionnaire is designed to narrow things down in order to simplify analysis. The respondent's answers are fitted into a set of categories. The categories may

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be read out by the interviewer. Questions about income or age, for example, may invite respondents to chose a category into which they fit. Category questions are usually used for recording income.

Ranking Questions

These are often used when we are measuring views and opinions. The respondent is asked to put possible answers to a question in rank order of importance to him or her. For example, someone might be asked to rank in order of desirability a list of choices for new radio services or programmes. Some detail might have to be given to help people make informed choices but this method is often used to measure opinions and learn about people's priorities.

Another example might be to find out what people thought were, to them, the most important features of radio or television. Usually number one is given to the most important category, number two to the next, and so on. In the analysis it is simply necessary to add the scores and the overall response with the lowest score is the most favoured. One has then a rank order of responses which may reflect no single individual's view but is an average of all of them.

Scale Questions

These are more complex. A common form is what is called an *ordinal scale*. For example, respondents may be read a statement "The television network should play a feature film after the evening news" or "Most locally made television programmes are of poor quality". He or she might then be asked for an opinion ranging from strongly disagree to strongly agree.
A coding frame is provided thus:-

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
0	1	2	3	4

The order can equally well go the other way. Each point is assigned a number 0 to 4. The overall score will be a measure of opinion. This can, for ease of comprehension, be converted into a percentage. The sum of scores is divided by the number of cases (omitting non responses). The resultant number multiplied by twenty-five gives a score out of one hundred.

There are other forms of scale questions in which respondents are asked to give scores in this way. Five point scales are often used but there is no rule against more or fewer. In my experience, five give the most easily analysed results.

Quantity Questions

The response is a number, exact or approximate, in answer to a question asking for information that can be supplied in numerical form. How many are living in your household? How many radio sets in working order do you have at home? How many television sets do you have? The actual number is recorded.

Grid Questions

Sometimes a table or grid will be provided to record answers to more than one question at the same time. These require practice but in the end they help both interviewer and the person who does the analysis!

For example, you might need to know what audiovisual equipment is available for use and what was out of action needing repair. A typical grid question might be as follows:-

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Which of the following items does your household have? How many are in working order and how many in need of repair?

	Number in house-hold	Number in working order	Number in need of repair
Car radio	☐	☐	☐
Portable radio set	☐	☐	☐
Other radio	☐	☐	☐
Television (black + white)	☐	☐	☐
Television (colour)	☐	☐	☐
Satellite dish	☐	☐	☐
Video recorder	☐	☐	☐
Audio cassette recorder	☐	☐	☐

Making Questions Work

"Ask a silly question and you'll get a silly answer". That is a commonplace saying and it is true for questionnaires, even in audience research! Consider this question:-

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"How much time do you spend watching television?" (Tick box)

A great deal	☐
A moderate amount	☐
Not a lot	☐
No time at all	☐

The only precise answer would be the last one! The others would have no definite meaning. All you would be measuring would be *subjective* opinions of the amount of time spent listening. For one person, an hour a day would be "a great deal", for another it would

be "not a lot"! Never forget that the quality of research results is determined by the questions asked. If the questions are imprecise, no amount of clever statistical analysis will give the results greater precision.

There is another kind of problem. Can you see any difficulty with these questions?

Does your radio have the facility to receive FM? Yes/No

What kind of radio do you have? (Tick box)

Portable	☐
Car radio	☐
Tuner in a stereo system (with record player etc.)	☐

How would you deal with the problem(s) you have noticed? (There are at least two!). The key thing to check is: do the questions work equally well for the person with ten radio sets and the person with only one? Are there clear instructions for the interviewer?

The first question would be more precise if it were: "Do you have any radio with FM or VHF?" The only problem then is that often people are not familiar with technical terms, and in our experience it is best to ask to see the person's sets.

The second question gives no idea of the numbers of sets. If you need to know, ask how many of each category the person possesses. But another problem is more tricky but essential to tackle. What do we mean by "you"? Our interest is surely to find out about *access* at home. The person interviewed may not be the head of the household. He or she may not personally *own* any media equipment of any kind. In many cases, because of random selection within a household, we will be interviewing a child, another relative of the

head of the household or other person normally living there. It is often best to ask about household sets.

We must beware of making assumptions about respondents and of being oblivious of such. Beware of asking questions implying ownership of radios, televisions and other household equipment in large, extended households where such things are shared. Guard against imposing views of family structure or of the respective roles of men and women from your own background. Be ready to notice when your questionnaire, perhaps drawn up against a different background of assumptions and attitudes, does not really fit the situation. Be prepared to change it!

Sometimes questions may presume certain views. What about this question:-

"Does the local radio station provide an adequate service?"

The presumption here is that everyone has an idea of what an *adequate* local radio service would be. This question might work quite well but may need to be followed by more questions for clarity.

Designing neutral questionnaires is difficult, especially about subjects on which there is a wide variety of opinions and where the researcher or interviewer will usually have strong views of his or her own.

The Role of the Interviewer

The design, wording and order of questions asked, the tone of voice, the "body language" of the interviewer and the relationship of interviewer and interviewee are all important. They can completely change the answers given, especially if the questions have to do with attitudes and opinion. Not only can the person being interviewed be influenced. The interviewer can fall into the trap of interpreting answers in a way determined by his or her prior attitudes. Many examples can be given

of this. One I particularly like is from a research methods training course. Participants from various African countries were being taught the need to avoid leading respondents towards certain answers. Don't expect any particular response, they were told.

They were divided into three groups for a pilot study in a rural village. A key question they were to administer asked for the three most important reasons why the farmer being interviewed did not expand his or her agricultural activity. Each group was given, separately, identical instructions. Interviewers were told not to suggest answers and not to supply examples. However, before they started, the instructor casually mentioned three likely reasons. These were mentioned separately to each group and a different reason was given to each!

The three likely reasons he suggested were shortage of land, labour and equipment to the first group; lack of money, seed and fertilizer to the second; and the lack of roads and the distance of markets to the third.

The interviewers selected, at random, a number of farmers. The most commonly stated set of constraints in the responses were identical with that mentioned casually by the instructor to each of the three groups! The interviewers who had been given to expect that the problem was the shortage of land and labour, recorded this as the most common reason. Those who had expected lack of money, seed and fertilizer recorded this as the most common reason, and those who had expected transport difficulties recorded that this was the main constraint.

The "casual" remarks of the instructor had influenced the results. It may have been that despite the firm instructions, interviewers confronted by the difficulty of asking an awkward question of a stranger, actually helped the person to answer or interpreted responses in the expected way.[7]

Even if the interviewer scrupulously followed the rules and said nothing apart from reading the questionnaire verbatim, it is still

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very likely that recorded responses would be nearer to the interviewer's expectations than otherwise. This is because the responses are interpreted by the interviewer in accordance with his or her expectations. But interviewers must avoid making any assumptions about the answers they are going to get. This applies to all questions, but it is especially important to beware of influence when asking questions about attitude and opinion. The wording of the question needs to be as neutral as possible to avoid giving the respondent the impression that certain answers are expected. Depending on the approach of the interviewer, the respondent may well give what he or she considers to be the expected or "correct" answer.

Here the manner and tone of voice, even the "body language" or posture of the interviewer can be a big influence. Let us imagine you are asking questions about plans to change a TV service, or it might be a proposal to open a commercial popular music radio station, or it could be a question about the current government in power. In each case you may have very strong views. It may be hard to ask questions in a tone of voice and manner which does not communicate these views to the respondent. But it must be done, otherwise research is pointless.

The problems don't end there! You may not have any views or may be able to suppress them altogether but you may assume too much of your respondents. For example, you may think it is pointless to ask all questions of everyone, including the very poor. Indeed you may think it is absurd or worse to ask questions about TV viewing, for example, of very poor people. But what of those very poor who do view? Beware of assuming anything; sooner or later your assumptions will be wrong!

Politeness and courtesy are very important. The interviewee is giving his or her time to provide information. It may ultimately be of benefit to him or her or even to the community, but at this stage this may not be at all clear or certain. The interviewer needs to treat the person interviewed with care and respect. One problem that can interfere with this is social class or caste. In many cultures it is difficult to avoid the bias which can be introduced by differences in social status between interviewer and interviewee. It is often the case that the interviewer comes from a higher social class than the person being interviewed. The reverse can also happen. Both can cause serious problems for the reliability of the answers given.

Class difference can produce a range of feelings among interviewees ranging from resentment to deference, with varying degrees of unease and even embarrassment. There are various ways of dealing with this problem. One is to recruit interviewers from all social backgrounds and use them where appropriate. But this is not always a practical solution. There are no rules about this; each circumstance requires different sets of solutions. Research field work supervisors need to be alert to the problem and choose and train their field workers to be sensitive to it. Often one finds that the best team of interviewers is made up of people who seem relatively classless and who may appear so to most people being interviewed. But whatever one writes here will not be of much help in a general sense. Conditions and circumstances vary enormously between cultures and the best guide is experience.

Different ethnic and religious backgrounds can also play an important part in affecting response. In many societies it is not possible for a man to interview a woman at all, or at least the woman's husband or other close relative must be present. Such requirements of social propriety can also bias the response. A woman may say rather different things in response to a strange man, especially if a close male relative is present, than she might say to a woman with no one else present. This even applies in what we might think as the relatively "safe" area of broadcasting. In 1985, the BBC found among Afghans living in refugee camps in Pakistan that some men said

they did not like their wives to listen to the radio when they were not present. It was therefore important to be sure to interview women not in the presence of their husbands. For this it was essential to use women interviewers.

There are some useful rules for administering questionnaires that all good interviewers should follow.

● Introduce yourself in a friendly way and explain in simple terms what the research is for.

● Always say how long the interview is likely to last.

● Explain that the information given is confidential and anonymous, and that no information which could be used to identify people shall be revealed to anyone.

● Check back with the interviewee if there are any points of uncertainty or confusion.

● Don't waste the interviewee's time or in any other way abuse the privilege he or she has granted you by agreeing to be interviewed.

Ghana Broadcasting Corporation's audience research department reports some interesting problems when their interviewers go out into the field to select random interviewees. Evidently "gifts" are required for some of them. For example, some old women demand tobacco before being interviewed. Often it is essential (and at least courteous) to secure the help of a village chief, which may require the provision of "the usual customary drink."[8] Local customs should be respected always.

Pilot Testing

We generally need to test a questionnaire to see if it is going to work in the way intended. In effect what we do is to run a mini-survey. Let us suppose we are carrying out a survey of a group of villages to measure the impact of a radio and TV campaign on infant nutrition. We have decided that the best method to use is a random sample survey of women with children. A questionnaire has been designed and produced. The questions cover all the areas for investigation by the research project. What is to stop us just going ahead?

Nothing need stop you from going ahead! You may well obtain acceptable results along the lines of what was needed and expected. But there is a risk, especially with attitude and opinion questions, that some questions don't work in the way intended, or that sections of the questionnaire are unnecessarily complex. Sometimes we may not realise that some of the questions have made assumptions about attitudes that are not justified. For example, I helped to run an audience survey in Accra and we decided that time pressures made pilot testing impossible. It was a pity because we found that a group of questions about perceptions of bias in domestic radio news did not provide any usable data. The way the question was put simply did not produce useful responses. A pilot survey or "pretest" could have prevented this part of the questionnaire being wasted. Remember that time is as much a research resource as money is. There is no point wasting resources on questions that do not work; it wastes the time and effort of everyone. But it is easy to avoid making this mistake and save time and effort in the long run. It also ensures that the research as a whole is more useful.

To do a pilot survey it is usually not necessary to go to the trouble of selecting a fully random sample. But it is important to select people who will represent a wide range of possible respondents. Will the questionnaire work equally well with old and young, rich

and poor, educated and illiterate, people of different ethnic backgrounds or religious affiliations, or people of different occupations and life styles? Here is the chance to find out by trying the questionnaire on as wide a range of interviewees as possible. Pilot testing is also an excellent opportunity for giving interviewers experience of the questionnaire. Mistakes and misunderstandings spotted now can be corrected. When the full survey is under way it is probably too late.

The pilot survey is not only a way of trying out questions and training interviewers. We can also use the exercise to see if the results provide what is needed. Sometimes even well designed questions don't provide useful information. They may just lead to the research equivalent of a dead end! The question works well, but it is a non issue! So everyone's time can be saved by dropping the question.

As we mentioned earlier, pilot testing can use open-ended questions to provide a range of possible answers for a list or category question. The written-in answers need to be grouped into categories and the most common responses or types of responses can be summarised into statements which cover the various likely answers in the final questionnaire.

Checking or Testing

Reliability of Questions

Reliability is a measure of the extent to which a questionnaire produces similar results on different occasions. A tractor that sometimes pulls a heavy load but at other times cannot even be started, is unreliable. A question that produces one answer on one occasion but a different answer (from the same person) on another is unreliable if it is a question which normally should producethe same response. But how can we ever tell? Normally we don't

ask the same person the same question on different occasions!

There are various ways of testing reliability. One is to test a question on the same person on different occasions. But a better method may be to try questions out on a number of people chosen in a similar manner. A crucial question is, would different interviewers asking the same question of two random samples of people get similar results? Note the use of random samples here. We assume, quite safely, that two random samples of the same universe will possess the same characteristics and that if two interviewers produce different results from two such separate samples of the same universe, then the differences arise from differences between the two interviewers or from a fault in the questionnaire that somehow gives different results in different circumstances. This is an essential point. Unless we can be absolutely sure that the questionnaire will produce the same results when applied to samples of the same population we cannot use the questionnaire to make comparisons *between* populations. We would say the questionnaire was unreliable. There are various ways of measuring reliability, some of them are rather complex. Usually it is through experience that we establish which questions can be relied on to give consistent results but the validity and reliability of questions can be tested for most purposes on a pilot survey.

Checking Interviewers

During normal survey conditions, one should look out for major differences between the results from different interviewers. If it is obvious that these differences arise from the fact that they have been interviewing people in different locations with people from different lifestyles and backgrounds, then all may be well. But if interviewers are mostly interviewing people drawn at random from the same universe, their results should be broadly simi-

lar. If they are not it can be an indication that one or more of the interviewers are biasing the responses. Remember that while the questionnaire is constant, the interviewers and enumerators are not. To what extent do one interviewer's responses differ from another's because of their different ways of administering the questionnaire?

This is why the training of interviewers is so important. They work on their own almost all the time. It is vital that they do everything in the same way and produce results that reflect respondents' realities in the same way. If we are involved in a very large scale survey in which each interviewer is responsible for 50 or more interviews, differences between results can be spotted at the analysis stage. It may be noted that interviewer X has a significantly larger number of responses of a particular kind when in many other respects the people interviewed were similar. One would need to investigate. But matters should not be allowed to get to that stage. In most cases, inconsistency and unreliability can be detected very quickly by appropriate methods of *quality control*. These take place while the survey is going on if we want to avoid additional problems later. Most of all, adequate quality control prevents a survey from being repeated when it is clear at the data processing stage that the results are not reliable.

Interviews can be supervised of course, but it is impossible for supervisors to be present at every interview. The supervisor should be present for some interviews, however, and will be able to notice errors, inconsistencies, inappropriate behaviour etc. It is also common practice for a proportion of interviews to be "back-checked", that is a percentage of interviewees are revisited by the supervisor who checks that the answers given were accurately recorded. The services of an interviewer who was found to be unreliable may be dispensed with, unless, of course the fault can be corrected through further instruction or training. Interviewers have to be trust-

worthy people. Any evidence of deliberate unreliability should lead to instant dismissal.

Validity

Validity is defined as that quality in a questionnaire which ensures that what is measured or described reflects reality. Consistency of results is not enough. A questionnaire can produce consistent results, i.e. be reliable, but still be invalid; the results may not accurately reflect reality but instead consistently get it wrong! How can we tell?

It can be quite difficult to find out. A good example of a validity problem is experienced in radio audience research. If you ask a large number of respondents, randomly selected from the population, about what they listened to yesterday and you continue to select and ask people the same question over a few weeks, you can calculate various things about radio listening such as, for example, the average daily audience as a percentage of the population, and the average number of hours listened to per person per day. If we also provide a self-completion listening diary to another random sample of the population, we can also calculate the daily audience and the average number of hours of listening. But the two sets of data will unfortunately be different; the diary method is likely to produce higher figures. Which is valid? Do diaries encourage people to overstate their listening? Do people listen more because they are filling in a listening diary? Do people who listen very little to any radio simply not bother to send in their diaries, with the result that those who do are taken erroneously as fully representative? Does an aided recall, face-to-face interview produce an underestimate? No-one is certain; it is probable that both happen. But which is the valid measure? It is doubtful if audience researchers can ever satisfactorily answer this question, but it may not matter too much, provided that we consistently use the same method of measurement. There may be some

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distortions in each but these will be consistent over time; each means of measurement will therefore be able to tell us what we do need to know.[9]

Checking and Editing of Questionnaires

The supervisor should check through all questionnaires in the field for inconsistencies, omitted questions and other errors. Sometimes it may be necessary to go back to the interviewee. Certain checks can be, and often are, built into the questionnaire so that most inconsistencies can be spotted by the supervisor and corrected by checking with the interviewee.

It is a good practice to specify a certain percentage of interviews which will be back-checked. It may be decided that 5% of all interviewees will be recontacted by the supervisor to check on the reliability and accuracy of the data recorded by the interviewer. The drawbacks here are first, the time factor and second, interviewee fatigue. The person interviewed in the first place may not take too kindly to being bothered again, especially with questions he or she has only recently answered!

Translation into Different Languages

In most countries in the world, questionnaires, on a nation-wide survey at least, need to be administered in more than one language. For example, in a recent national audience survey in Zambia the questionnaire was produced in English. But to many respondents it was preferable to administer the questionnaire in their own language. At least seven other Zambian languages were used. Sometimes questionnaires can be translated and printed in different languages. Sometimes two or three languages can be printed on the same questionnaire; it is, for example, normal to print Moroccan questionnaires in both Arabic and French. But very often it is too cumbersome to have to carry round large numbers of questionnaires in different languages. What happens usually is that interviewers have their own copies of the questionnaire in the appropriate languages and can read from these as appropriate, filling in the answers as usual in the normal way on the basic questionnaire form.

But how can we be sure that a translation is accurate or reliable? This is not an easy matter. Different languages do not always have directly translatable words. Sometimes it is very difficult to convey the same meaning in different languages. This is less of a problem with the question "Did you listen to the radio yesterday?" than with a question asking for opinions, feelings and attitudes. All you can do is to make sure that the words and phrases used in questions are *as near as possible* in meaning when translated. This can be checked in the following manner. Let us suppose the original questionnaire is in Spanish and it needs to be translated into Quechua for use among indigenous people in Peru. After translation the questionnaire in Quechua should be given to someone who has not seen the original questionnaire in Spanish and has not been involved at all in any part of the research. This person is asked to translate into Spanish. This *back-translation* can then be checked against the original. It should be very near or identical in meaning , if not in the precise words used, to the original.

Continuous Audience Research: Methods in Use Today

Radio and television audience research is something that is needed fairly constantly. Programmes and schedules change, there are seasonal variations caused by changes in weather and in the human behaviour associated with it. Many radio and television stations

therefore need regular or continuous research. Whereas a sample survey may tell you everything you need to know about listening and viewing, it remains true only for the period when the research was done. You can make broad generalisations about TV and radio consumption habits and behaviour from a single survey and these generalisations may hold reasonably well for a year or more. But broadcasters need up-to-date information and more regularly. Advertisers also need to have data which are up-to-date on which to base decisions on the allocation and placing of their commercial "spots". Various methods are in current use.

Diaries

A sample is selected to represent the population, over a certain age, as a whole. Those selected are invited to keep a diary of listening on a weekly basis. A precoded diary is provided listing stations and times of day. Two examples of diaries (TV and Radio) are given in the Appendices.

Each diarist is provided with instructions. The normal practice is for the diary to be handed over personally by a research field worker who can explain what needs to be done. The selected individual is asked to enter his or her listening activity. Most diaries are kept for seven days but can be for longer or shorter periods. Diary keepers can be recruited by mail or telephone, but personal contact by a fieldworker is usually favoured.

There are many recognised weaknesses of the diary method. People can forget to record all their listening or they may complete the task at the end of the week just before it is to be sent by post to the audience research headquarters or research agency. By this time the respondent may not have an accurate recall. Respondents can make mistakes in time, programme, channel or some other aspect of their listening or viewing activity.

There are not only errors of omission. The respondent may record what he or she *intended* to do, not what actually happened. The respondent may fill in what usually happens rather than what did actually happen. Diary keepers also can try to please or impress by their listening or viewing behaviour as recorded, a conditioning element that is less common in most other methods.

Another major problem is one that is unique to the diary. People who listen to little radio or watch little TV may be reluctant to keep a diary about something they do not often do. And yet, if our survey using a diary is to be representative of the whole population, the diary keeping sample needs to be representative of all levels of radio and TV consumption, even of those who listen or watch very little, and of those who may watch or listen to nothing during the period they are asked to record.

What about the person who never listens to radio or watches television? These will be encountered when first contacts are made with prospective diary keepers. A record is kept by the field worker placing the diaries. When someone is contacted who never listens to the radio the fact is recorded. To find 1,000 television diary keepers it may be that one encounters 100 for whom keeping a diary would be a pointless exercise because they never watch television. In this case one could "return" the diary immediately and enter the data as a nil viewing response, or when projecting the results to the adult population as a whole make the necessary allowance for the fact that for every 1,000 viewers who see any TV there are 100 more (in this hypothetical case) who watch none. Thus if 20% of the diary keepers had seen a particular programme we could not say 20% of the population had seen it. We know that those who never watch need to be accounted for. In this case we could say that for every 200 people who watched it 900 did not. The audience in the population as a whole would be 200 / 1,100 x 100 = 18.2%.

This is an obvious and easy adjustment to make. Other distortions occur with diaries and are more difficult to cope with. The problem of illiteracy means that there will always be a proportion excluded altogether from the sample, even in the most well-educated countries. We cannot assume they are non-listeners or non-viewers. If the percentage of illiterates in the population is small (less than 5%) it may not matter much to exclude them. But if they are a much larger proportion this means the diary method is not suitable as a measurement instrument or it may need to be supplemented by another method to cover illiterates. The media behaviour of illiterates may be significantly different from that of literate people.

Another recurrent problem is that it is difficult to recruit a representative number of people from lower income socio-economic groups or classes. And those who are recruited are less likely to complete the diary and send it in. This can introduce serious distortions in the results unless allowance is made for their under-representation. This can be done at the analysis stage. For example, if 35% of the population are in a lower socio-economic class but only 25% of the diarists and only 15% of the responses sent in come from people in this group, one would "weight" or increase the value of the results of these 15% to be 35% of the sample and thus to reflect the appropriate proportion in the population as a whole. At the same time and by the same process the responses from over-represented socio-economic groups would be weighted down to appropriate proportions.

The diary method has the great advantage of being cheap! And it can be made to work. It also has the enormous advantage of being able to plot listener and viewer behaviour from day to day. This is virtually impossible with single face-to-face interviews. Another great advantage over face-to-face interviews is that diaries can be filled in by people who are difficult to contact in normal face-to-face interviews. For example, people who spend a lot of time away from home, driving motor vehicles for example, are unlikely to be contacted in a face-to-face survey. People who work long hours are also hard to contact. But they may be persuaded to keep a listening or viewing diary.

The diary method is in use in many European countries to measure radio listening. As noted earlier it is likely consistently to record higher levels of listening than the face-to-face aided recall method. However, allowance can be made for this and it has been established that, provided allowance is made for under-represented groups and for non-listeners or non-viewers, it can give a fairly accurate picture of media behaviour.

How do we deal with a person who may listen to the radio or watch television on only a couple of occasions in the week? His or her viewing or listening behaviour is of equal interest if one is seeking to build up a truly representative picture of the behaviour of everyone. Response, even from low users of radio or television, can be improved by the way the diary system is administered. All postage costs for sending in the diary must, of course, be paid by the organisers of the research. A small gift to show appreciation after receipt of the completed diaries can boost response. The fieldworker should emphasise the fact that the diary of an occasional listener or viewer is of equal interest and importance.

The usual practice is to use the same people to fill in diaries for a number of weeks. Experience has shown that for the first week or two there is a "diary effect". People either listen or view more or they exaggerate this behaviour. Normally results from the first diary or diaries will not be used in compiling reports on listening or viewing. Diarists are given time to "settle down".

Meters

We can use electronic technology to record very accurately just what the radio or TV is

tuned to and exactly when it is switched on or off. A meter can be attached to the set or sets and can be so designed as to keep an accurate record of what happens to the TV or radio over a period of time.

The use of meters is not new. Radio began what many have called the electronic age. It was appropriate that, at a very early stage, someone should have suggested an electronic means of measuring the audience. Only a year after the first radio audience survey using face-to-face interviews in March 1928 in the United States, the invention of a meter device was announced. But commercial use for audience research did not happen until 1935. This was before the invention of successful magnetic tape recording apparatus. The information that needed to be recorded - dates, time and radio channel or network - had to be scratched onto a moving paper tape. There were many problems with it, not least of which were power failures, blown fuses and disconnections, not uncommon occurrences in these early days. The patent for these Audimeters was acquired by the market research company AC Nielsen. The system was gradually improved and developed until in 1942 there were 1,300 meters in 1,100 homes in the United States. The system went into decline when, in the 1950s, car radios and portable radios came into common use and listening on these sets increased to the point when meter data became unreliable. At that time, Audimeters had to run on mains electricity and could not therefore be used on sets outside the home. As this book is being written, new meters for radio are being developed that can record time and programme information on most kinds of radio sets.

But it is in television audience research that meters are of major importance today. In most countries in Europe, Japan, Australia, New Zealand, the United States, Canada and a few countries in the developing world, meters on TV sets in selected homes are used to provide data on programmes.

The drawbacks of the meter are obvious. They require the willing acceptance of the presence of the equipment in the selected household. At first they measured only time and the network to which the set was tuned. They did not record whether anyone was actually watching what was on the television, nor did they record how many people were in the room watching the set, nor anything about those people. More recently, various companies in Europe and America have produced "peoplemeters" which require people in the room to press a button on the meter to record their presence in the room. A different button or number can be assigned to different members of the household. There are even buttons or numbers to record the presence of visitors to the household who may be watching! In this way, theoretically at least, the peoplemeter can record not only the time of viewing and the programmes being viewed, but also who was watching and their demographic characteristics - age, sex, occupation etc. There has been, and still is, some scepticism about whether the meter records real viewing behaviour. The respondents have to remember to record their presence in the room and their departure from it. And being present in a room with a television set switched on is no guarantee that the programmes are being watched!

One may ask at this point how all this relates to what has been said about the principles of sampling and representativeness. Obviously a meter is not like a questionnaire. But the selection of households for the placement of meters follows the principle of sampling outlined earlier. The aim is to find a sample of television households which will accurately represent the population of television households, in the country or region being researched as a whole. What happens is that the research agency administering the system first needs to do an establishment survey to determine the nature and composition of television households and of households with no television. Data are collected on size

of households, number of television sets, income, class, age and sex distribution and, where relevant, ethnic and other demographic data. A model of the television owning population is built up. From this model, a quota sample is constructed in which all the significant population groups are represented from single person households to large family households, from poor households perhaps with only one monochrome set, to wealthy households with many sets. The agency then selects households which socially, geographically, ethnically, and in such matters as household size, number of sets, wealth, age and sexual composition, represent the population as a whole.

In fact the model is never perfect. It cannot be, for the peoplemeter cannot yet, for obvious practical reasons, be used in institutions like hospitals, schools, hostels and prisons where a large number of people may be watching. Peoplemeters cannot be used in hotels, public bars, community centres or cafes where, in some countries, a lot of television viewing takes place. Peoplemeters exclusively record viewing in households. In countries where a lot of viewing takes place outside the home, they do not record the whole situation very well. Moreover, the factors that led to the demise of the radio meter have begun to raise questions about the efficacy of television meters. I sat next to a man on a commuter train recently watching television on a 10 cm screen portable set. Television is now potentially as portable as radio has been for the past forty years. Meters are being developed which can record out-of-home viewing. Presently meters in use are connected to the telephone system. At fixed times they automatically "call" by telephone a central computer which takes down all the information. This usually takes place on a daily basis. For obvious reasons, portable sets taken outside the home, in cars, in caravans, even on trains, cannot be used in this way. If out-of-home television viewing is as significant as out-of-home radio listening, a new kind of meter

system needs to be developed. At present the meter system ignores all viewing outside the home as well as all viewing in large groups, in hotels, shops etc.

The latest development, both for television and radio, may be a meter which will be worn on the person which may be no larger than a wrist watch; which will record on a silicon chip an inaudible signal within the sound being emitted by the set which would indicate the network or channel of any set being viewed or listened to at any time and in any place. This development would mean a shift away from the set household as the unit of measurement to the individual. This makes it, potentially, the most accurate means of measuring the actual viewing or listening of an individual.

Meters are mostly used in western industrialised countries and Japan. However they are not unknown in less developed countries. TV meters for audience measurement are used in Hong Kong, the Philippines, South Africa and various Latin American countries. There are moves to introduce meters in countries as diverse as India and China.

Personal Interviews

There are two basic methods. Either the interview takes place face-to-face or it is conducted over the telephone. There are many variations in approach with each.

Telephone Interviews

The use of the telephone in audience research is found mainly in the richer countries. Telephone interviewing is widely used there in opinion and market research where there is a high level of ownership of telephones. In some places it is now virtually essential to use telephones; security systems on apartment buildings and other restrictions on access to peoples' front doors make personal calls hazardous or impossible.

The advantages and disadvantages are clear enough. Interviewers stay in one place and no time is taken travelling or looking for the next respondent. Normally many more interviews can be conducted in the same time.

Randomness of the sample is achieved by the use of Random Digit Dialling or RDD. This is a system which selects any domestic subscriber's phone number at random and dials it automatically. The person who answers will then be invited to answer a few questions for research purposes. Confidentiality is assured. The respondent will be told how long the conversation will last; telephone interviews need to be very much shorter than face-to-face interviews. Even half an hour could be regarded as too long on the telephone. Refusal at this stage should be avoided if possible. In some cases the same selection procedure described earlier may be used to select a member of the household.

The last factor requires elaboration. The telephone interview can be used to *sample* households, in which case the listening behaviour of all occupants can be recorded by recall. But of course one person cannot necessarily speak accurately for everyone. Alternatively the interviewers can, using a random procedure, select just one person from the household for interview. This is not a very easy thing to explain over the phone, but it does not have to be the practice always used. One can use the Kish Grid method described earlier. In Australia the practice is to ask for whoever last had a birthday or next will have one. This method, like the Kish Grid, provides a randomly sampled individual from the household and is much quicker than the Kish Grid. If the person selected is not willing to talk then, an arrangement can be made to call later.

There are some important disadvantages. Even in the wealthy United States, about 5% of television owners have no telephone. In most countries the method would be even less suitable. It is not a very suitable means for asking for a lot of information for

the reason that there is resistance to long telephone conversations. Respondents sometimes resent and reject an unexpected phone call from a complete stranger. If one is enjoying listening to a radio programme or watching the television one may especially resent being interrupted to answer questions about it!

Ironically, it was this factor which was, for some users of research, the most attractive feature of the method. Telephone interviewing could be used to determine what people were actually listening to or viewing at the moment the telephone rang. It was an exact measure of real behaviour.

Various techniques have been used a good deal in the United States for audience research. One method is known as "telephone coincidental". A very short questionnaire is used.

" What were you listening to on the radio when the telephone rang?"

(If the respondent named a programme a second question was then asked:-)

"What station was that programme broadcast over?"

(If however the respondent named a station at first this second question was asked:-)

"What programme is that station broadcasting?"

(A further question was added later:-)

"Please tell me how many men, women and children, including yourself, were listening when the telephone rang." [10]

This was used by the famous researcher C.E. Hooper from 1934. It is fairly easy to find fault with the questions! They assume not only that the person who answers the phone has a radio but that he or she was listening. These two facts could bias replies. But the procedure seemed to work reasonably well.

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A similar technique was also used later for television.

"Do you have a television set?
"Were you or anyone in your home watching TV just now?"

"What programme or channel?"
"How many men, women or children under eighteen were viewing?"

"Who selected the programme?"[11]

Telephone interviews are used in Europe for some audience research but not usually for coincidental measurement. The method in far more common use is known as "telephone recall".

Basically these involve a conventional interview using a questionnaire which asks respondents to recall either what they listened to yesterday, or for the 24 hours preceding the call. Many variations can be used, but typically telephone recall interviews ask about:-

● The time the radio (or any household radio) was in use the previous day.

● The programmes heard during those hours.

● The station or stations from which these programmes came.

There is a lot more that could be written about the use of telephone in audience research. Its use is growing in market research in the industrialised countries. It provides data rapidly and cheaply. An unbiased sample of telephone households is relatively easy to obtain. The sample can be tailored to cover a particular area.

There are two very great advantages in personal interviews by telephone; they cost far less than face-to-face surveys, which consume a lot of money in travel and accommodation costs, and they take the least time to adminis-

ter. A whole working day or its equivalent can be spent interviewing on the telephone whereas with face-to-face surveys a large proportion of time can be spent in travel and in the process of selecting and finding respondents.

Telephone surveys are especially suitable in large countries where distances to travel are very large. They are also very suitable in countries where it is difficult or impossible to gain access to people via their front doors. For example, it is nowadays extremely time-consuming and, in some places, positively dangerous to attempt door-to-door surveys in the United States. The telephone survey is very widely in use. Obviously telephone penetration has to be very high.

In most developed countries, telephone penetration is now over 90% of households. But can telephone surveys be of value and use in countries where telephone penetration is very low? I believe they can. For example, in the more prosperous areas of some cities in some poorer countries, security is such that access to interviewers arriving on foot is virtually impossible. Telephone surveys may have to be used to gain access to people in this class.

When telephone penetration is very low it may still be possible to use it. For example, there are often telephones in villages or in poorer areas of cities and towns. These 'phones may be in cafes or hotels, community centres or the houses of local officials. It may well be possible to devise ways of using these 'phones and calling selected people to the phone for interview. I haven't worked out a procedure for selection that would remove bias but I am sure it would be possible. The advantage of speed, cheapness and the fact that literacy is not required, make the telephone method very attractive where resources are limited. Using telephones for research in poorer countries is a challenge for ingenuity!

These can, like telephone interviews, be coincidental or recall. The sample to be contacted and interviewed has to be chosen by one of the methods outlined in a previous section.

As far as I am aware, there is currently no audience research by personal interview using questions like those outlined above for telephone coincidentals. But many audience research departments, especially in non-commercial public service broadcasting use a face-to-face interview in which people are asked about listening yesterday. (It is also used by a few for television research although meters have largely taken over in industrialised countries).

Face-to-face interviews are probably the most practical method for use in most developed countries. The method is not the least expensive. But diaries and telephones have to be excluded if we are interested in the media behaviour of illiterates and those without telephones, unless my suggestion in the previous section can be made to work! Meters have to be excluded from consideration in many countries because of the high costs involved and the need to use telephones for data collection. [12]

The question of which method to use can be answered by a process of elimination, and then by seeing how a sample survey employing a face-to-face interview with a questionnaire can best be adapted to the circumstances and research requirements in the country concerned.

It is helpful before considering the matter further to look at the experience of face-to face interviews using the recall method in Britain. The BBC Daily Survey of radio listening (and for some years, of television viewing also) began as the Continuous Survey in 1939. At one time as many as 4,000 people were selected every day of the year and interviewed about what they had listened to on the radio and watched on television the previous day. [13]

Before it started, a different method had been tried in order to measure audiences and it is worth describing briefly here since the method has been used elsewhere, most notably in India.

At that time, as now, the BBC was funded by income from licences. In those days, every wireless set owner had to buy an annual licence. The money was collected by the government, but most of it went to the BBC. (The wireless licence in Britain has been abolished; revenue now comes from television licences). The fact that every set owner was required to have a licence meant that a ready-made national sampling frame was available. A number of postal districts was selected at random. Then samples of individual homes with a licence were drawn from within each of these selected districts.

Robert Silvey, the pioneer of audience research in the BBC, wanted to cover everyone in the licence paying household. Having selected 3,000 addresses, four questionnaires were sent to each with an invitation to ask for more if required. A reply-paid envelope was provided.

The response rate was somewhat disappointing - 44% of sampled households which had been sent the questionnaires completed and returned them. What pleased Silvey however was that he received an average of 2.4 responses from all replying households, not far short of the average household size (excluding young children) of 2.7. The demographic and geographic composition of those who had replied matched the population as a whole very well. The problem was the same one that bedevils research through any self-completion questionnaire or diary. It under-represented working class people and had a middle class bias.

But what brought about the high (56%) non-response. Was it lack of interest, motivation or desire to cooperate? As Silvey wrote later, "the crucial issue was the extent to

which refraining from cooperating was related to the issues about which questions had been asked."[14]

The short questionnaire was on only one sheet of paper and had limited intentions, but it provided, for the first time in Britain, information about the times at which people listened. But it was not in a diary form. Actual behaviour was not recorded. Respondents were asked about their *usual* times of listening, the kinds of programmes they liked to hear and when they usually stopped listening in the evening. There were questions about how often people listened to specific news bulletins and some other regular programmes.

The results were something of an eye-opener to the middle and upper-class hierarchy at the BBC. They had believed that "nobody dines before 8" but were "staggered to learn that most people had finished their evening meal by 7.00 pm".[15]

The experiment was repeated six months later with a similar level of response. This questionnaire attempted both to measure audiences for different time periods and programmes, and to find out what were listeners' likes and dislikes.

These two questionnaires had not been able to measure much actual behaviour. They told the BBC what people *said* they usually did, what programmes they usually listened to, how often and so on. But the questionnaire did not give any precision to the picture. One could not, as a result of these questionnaires, say that at 6 pm a certain proportion of the population would be likely to be listening to the news. All that could be pointed to with some certainty was the periods of peak audience. In the United States the advertisers clamoured for day-by-day, hour-by-hour ratings. They even wanted to know how many people were listening to commercial announcements *between* programmes. But in Britain and almost all other European countries there was a monopoly of broadcasting allocated by the state either to a state-run broadcasting service

or to one run on the public's behalf by a public body like the BBC. There was no radio advertising in most countries. In Britain the BBC existed to provide broadcasting as a public service. No one demanded to know how many middle class housewives were listening at precisely 2.10 pm on a Wednesday! Advertisers then and now do want to know, if the radio station in question is commercial and is carrying advertising at that time.

However, public service broadcasters did want to know quite a lot about the public's behaviour. Programme planners - the people who decided to place a light entertainment programme after the evening news, or light music in the early evening or more serious talks and features in the early afternoon - wanted to know in quite a lot of detail about public listening habits. BBC planners had, over the early years, 1922 to 1938, gradually devised a daily pattern of programmes. Did it suit the listeners? Were any groups seriously disadvantaged? We noted earlier how wrong they had been about the time the majority of people ate their evening meal. While this was an extreme case of the myopia produced at that time by the British class system, were there other examples of false assumptions about listener behaviour?

Quite a lot of useful information was obtained from listeners by on-air appeals for volunteers to answer postal questionnaires, a subject that is discussed later. But such self-selected samples cannot be used to reflect with any accuracy the audience as a whole - even for a particular programme.

Interestingly the stimulus to providing more systematic and reliable data on listening was the Second World War. There was a major disruption of social and economic life. As Silvey put it, "programme planners found themselves very much at sea". It was decided that a fully representative sample survey should be conducted to find out facts about the population in respect of its use of the radio. After this initial survey took place in

October 1939 it was decided that similar research would be needed on a continuous basis and the Continuous Survey, later to be known as the Daily Survey, was born. Its objective was to estimate the actual audience for each programme. It began in December 1939 and continued until August 1992 when it was replaced by a self-completion diary system. Between 1949 and 1981, it was also the vehicle by which television viewing was measured. This is now done by a peoplemeter system in cooperation with commercial television. It was the emergence of national commercial radio which eventually led to the Daily Survey's demise. Commercial broadcasters' requirements could not be fully met by aided recall of listening yesterday employed by a continuous survey of this kind. The diary method is the one now used by both BBC and commercial radio for radio audience measurement.

The Daily Survey was based on the assumption that people could give an accurate account of their listening or viewing behaviour on the previous day, especially if the interviewer reminded them of what the programmes had been and at what times. The questions were limited to a single day, the previous day. A day has, for most people, a natural beginning and end. People can be taken through the day from when they woke up to when they went to bed and to sleep.

A major task, as with all interviews, is to try to ensure honest and accurate answers. A lot of attention was given to training interviewers. She (most interviewers are women) would need to be in full control of the conversation. Everything said to the interviewee, from the introduction and explanation at the beginning to the thanks at the end, was prescribed and was the same for all interviewees. Silvey's account sets the scene and approach very well.

"I am working for the BBC, finding out what people listened to yesterday. Will you tell me what you listened to yesterday, please?"

The interviewer followed this question immediately with another:-

"For instance, did you happen to switch on when you got up yesterday morning?

This was followed by another question if the respondent was unsure:-

"Well what time was that, do you remember?"

Having found out what time it was, the interviewer would consult the details with which she is supplied and follow with:-

"That was when ... (programme title) ... was on. Did you hear that?"

The interview would then continue quite rapidly with the respondent being taken through the day.[16]

Silvey had some important observations to make about the process which are worth noting. They are still valid today.

"This rapid approach was calculated to convey the impression to the informant that the interviewer was businesslike and that the interview would not take long and also to encourage him to regard the encounter as a friendly challenge to him to see if he *could* remember something as recent as yesterday's listening. If he took it in this spirit, the focus of his attention might be diverted away from a possible preoccupation with the impression his replies were making on the interviewer. He would have told her all she wanted to know almost before he had realised he had done so."[17]

It should be pointed out here that later on, the interviewers stopped the habit of identifying themselves as being from the BBC. Silvey claims it made no difference, but most market researchers believe it to be bad practice for interviewers to identify themselves in this way. It was later calculated that the sentence "I am from the BBC" increased the overall BBC listening figure by 3%.

Originally the Daily Survey excluded children under 16 but later included children down to age 4. At one time the sample was selected in the street. Interviewers were instructed to select by quota a given number of people of each sex in four age groups. More recently, interviews were conducted at peoples' homes. No one was omitted if it turned out that they had not listened at all on the previous day. The idea was to get the whole picture, and not listening at all was a part of the whole daily situation that was being measured.

The survey throughout its 53-year history has usually included extra questions at the end designed to answer contemporary issues for the broadcasters and planners. For example, at the beginning of the war, there was much controversy about how bad news of the war was being reported and about the continuation of entertainment. In 1940 the news was regularly about disaster for the Allied powers as one country after another fell to the Axis powers and British forces had to retreat. Some said that in view of the situation it was inappropriate to have light entertainment programmes. The question was asked:-

"When the news is grave do you think the BBC should cut down on variety programmes?"[18]

A clear majority (over 60%) said 'No' and only 20% said 'Yes'. Moreover, further analysis showed that most of those who had said 'Yes' did not listen to entertainment or variety programmes anyway. Another recurring issue was "vulgar" jokes in comedy sketches on variety programmes. Many letters were received complaining of poor taste, a theme which has continued in listener mail to this day. Questions on the Daily Survey have been used to find out what the listening public as a whole thought. As has often been the case, the letter writers have been shown to be unrepresentative of the general opinion.

Research among specific target groups

Often one may not want to obtain data from the general population. For example, specific broadcasts may be aimed at certain groups. Farmers, schoolteachers or pupils, people in the medical profession, rural development workers, children, members of ethnic, linguistic or religious minorities, people with disabilities and many other groups form targets for special programmes or broadcast services. They can be researched in such a way as to provide data just about them. For example, one could organise a survey among children to find out specifically about their listening or viewing habits. If they are included in a general population survey, there may be enough children in the sample to provide the data that you need. But there may not be enough, and in any case the normal coverage by survey may not include people younger than teenagers. Also, you may have some special questions just for children. In these cases a specially designed survey among children may be called for.

The general survey may provide information on other subgroups, like professionals, farmers, members of minorities, housewives or students. But very often the subgroup in which there is interest will not be represented sufficiently in a general survey. For example, many public service broadcasters in Europe seek to provide services for members of ethnic and linguistic minorities. These will be selected in the normal way during surveys of the general population. They will be found among households with TV meters and they will be among those who are asked to complete diaries. But normally their numbers in such samples will more or less reflect their proportions in the population as a whole, and there may be too few for analysis. Specially designed surveys of these minorities may be carried out.

Survey Research for Small Stations

Can small radio stations with limited funds do their own surveys? Yes, provided they follow certain basic guidelines and rules. Remember, poor research can be worse than no research at all! It can give spurious validity to data that can be quite wrong.

The main disadvantage of a station doing its own survey research is that there is a loss of independence; when an outside body does the research the results may have greater credibility.

The experience of Australia seems to have a wider relevance. Although there is a regular system of radio audience measurement through a commercial company, McNair Anderson, this is mainly confined to the large cities. Australia is a vast country and there are many local and regional stations not covered by this research "omnibus". But many of these stations are non-commerical and could not afford to commission research in their area from a research agency.

Some have decided to do surveys themselves and the national broadcaster, the ABC, has provided them with guidelines on how to go about it. These guidelines mainly advise the use of telephone surveys.[19]

What kinds of issues are likely to be of interest to a radio station? A typical example might be that a station director thinks of a new programme idea. The potential of this idea can be researched. The research will be used to refine and modify the idea which is translated into a new series of new programmes. The results of the programme, especially the reaction of the audience can then be studied to see if the idea has been translated into a successful reality. These "before" and "after" research phases are sometimes referred to as *formative* and *summative* research.

Other Methods of Audience Measurement Research

There is no reason whatsoever why new methods should not be invented and developed for the special circumstances of less developed areas. One good example of an innovative search for an appropriate method is found in India. There, a high priority has been put on getting television to the villages. But existing television audience research is conducted mainly in the cities. It would be very expensive to send interviewers out every day to the villages. Moreover, the TV panel diary used for TV audience measurement in India would be unsuitable for illiterates. Another important factor is that while most television viewing in the towns is household based, village viewing is often to community sets. A different approach was needed.

The main need was to find the relevance of the programmes in terms of their utility, clarity and comprehensibility. In addition to analysis of normal feedback from listeners' letters, research assistants were appointed in some of the villages and provided with self-completion questionnaires.

Problems were encountered in the long time it took between initiating each wave of research and the producers receiving the results. They decided for this and other reasons to concentrate on speeding up reaction in order to provide continuous feedback to producers from their village audiences. Doordashan (Indian Television) has now developed a more rapid system built around television viewing clubs and has the maximum involvement of rural viewers. The contact person in each club or viewing group provides information on a pre-coded questionnaire about the composition and size of the audience watching the community set. The research is continuous and therefore provides data on viewing behaviour over time. It also provides qualitative information on viewing behaviour, reaction, comprehension and interest.

Wherever a community set has been placed, there is one person who is given responsibility for looking after it, the set custodian. In most cases it is the custodian who fills in the questionnaire and posts it in a reply-paid envelope to the respective audience research centre. In the voluntary teleclubs an educated person is invited to perform a similar task. Well organised and well briefed, there is no reason why such a system or a modification of it should not be useful in many rural situations where other forms of research are not suitable. [20]

Some Common Problems Encountered in Field Research and Some Solutions

At the end of any research project in the field it is very important to find out about the experiences of the field researchers. The interviewers and their supervisors will have a good deal of important information about the project itself, problems with fieldwork, sampling difficulties, and the like. They will be able to provide information that will help in the analysis and interpretation of the results. "Debriefing" the field force will also provide valuable information to assist in the better design of future projects.

Few things ever operate perfectly. This is very true of field research when so much can be unpredictable. The weather, political upheavals and crises, civil disturbances and unrest and other events, usually unforeseen, can interrupt or influence the research in unpredictable ways. Those in charge of the research have to decide what influence or effect the event may have and if this can be avoided. If the research is affected you have to decide also what to do about it. When reporting any research project one needs to relate results to prevailing circumstances.

In a recent radio audience survey in the capital city of a less developed country, the following problems were reported. They are problems encountered in many countries, both industrialised and less developed, but tend to be encountered more often in the latter.

It was sometimes impossible to use a Kish grid because the household member first contacted was suspicious that it had to do with security or taxation.

Some interviewers said it was difficult to find men over 24 years of age at home. 2 or even 3 visits at arranged times had to be made. Then the person selected would often not turn up because of a general distrust of strangers in a city beset by both terrorism and an arbitrary police force.

In the areas of higher income it was often a household employee who opened the door. Sometimes, despite a careful explanation of the purpose of the research, no one would readily be interviewed. Sometimes the interview would be conducted through the intercom without the front door even being opened.

There was not the same problem in contacting people at the lower socio-economic level of this city. It was relatively easy to get selected respondents to answer. However, there was another problem familiar to anyone who has commissioned research in less developed areas. Other people in the household tried to influence the answers of the persons selected, even answering for the respondent at times. One interviewer reported that this was a persistent problem, even when she made it clear that personal answers were sought. In about half the cases she reported that interviews had to be abandoned. The problem was said to be most acute with women aged 40 and over with low levels of education.

Some interviewers reported that questions about one of the radio stations seemed to create in some respondents certain expectations that they would receive some present if they said they listened. Evidently the radio station in question had engaged in some promotional activity recently, rewarding people identified as listeners. Consequently there was probably

some overclaiming of listening by some people.

Educational levels were sometimes difficult to establish reliably. Young respondents, both male and female, sometimes claimed university education when this was obviously not so. Interviewers established whether the claim was accurate by adding a question asking the name of the university.

Addresses of some respondents were difficult to establish in some shanty areas. Dwellings were not numbered and were not in named streets. This made it difficult or impossible to trace the person interviewed for back-checking.

I like the solution invented by the interviewer in the above example to the problem of overclaiming education. Asking a supplementary question to ascertain the reliability of a reply is acceptable provided that the interviewer does not make the respondent feel inadequate or foolish. This obviously requires experience and sensitivity. The interviewer needs to consult the supervisor about any such problem and to agree on a solution. This should be recorded in the field notes.

How can we answer the problem of identifying dwellings in shanty areas? It is really the same problem as in most rural areas. The solution is to ask at the dwelling how it could be found again. Usually people locally have a way of identifying dwellings, very often by the name of the owner or head of household.

Once again there are few absolute rules. The skill of good field research, in audience research or in other fields, is to find appropriate and effective answers to problems as they come up. Then, having found a solution, one should keep a record of it. Supervisors, and very often interviewers too, need to keep a fieldwork diary to record anything out of the ordinary, problems encountered and how they were dealt with, and so on.

There may be various ways of mitigating or removing some of these problems. These will depend largely on local circumstances. Here are some suggestions.

Suspicions of the reasons for research are enormously difficult to overcome. Sometimes it may be necessary to give a careful account of the purpose of the research and to make a very big effort to build confidence. It may be necessary to do this at each selected household.

This is, of course, very time-consuming. There are sometimes short-cuts that can help. People may be very suspicious of the police, government officials and the like, but there may be a local person who is trusted by everyone. It may be a priest, an elder of a village or a respected local figure. If the purpose of the research is carefully explained to that person, his or her word of reassurance may help remove suspicion. This is more difficult to achieve in cities where there is less social cohesion, more anonymity and less prominent or widely accepted opinion leadership.

The presence of other people at the face-to-face interview is more problematic. In western societies where individualism is seen as of some importance, most opinion and market research interviews are conducted away from the presence of other people. It is simply not possible to ensure this in most parts of the world. Does it matter? The textbook response is to assert that it does matter because people will not always give their own personal views or be completely frank and honest when neighbours and relatives are listening. But if we accept that it is usually impossible to interview people as isolated individuals *because they do not live in that way* then to attempt to insist on one-to-one interviews may be unrealistic and pointless.

If the reality is that people's individual behaviour is always influenced by others then we should not seek to create a false and unfamiliar situation in an interview. On the other hand, when one is seeking the views and researching the behaviour of women in some societies where they take a subservient role it is important to ensure that interviews take place without the presence of a man.

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One has to make a sensible and practical judgement. What is important is to explain patiently and carefully to as many people as necessary that the interview is not a test. There are no correct or wrong answers. It should also be made clear that it doesn't matter in the least if the person being interviewed does not have an answer to a question.

A common mistake in radio and television organisations is to assume, usually unconsciously, that listeners and viewers think of radio and television within a similar framework. Sometimes it is an effort for producers to see what they produce as other than a set of discrete productions broadcast on distinctly separate radio or television networks. There is a tendency for producers, managers and directors to assume that the audience shares the same construction. In fact they very often do not. Some viewers and listeners may genuinely not know what programmes they listen to or watch nor on what network or channel. Sometimes they can get similarly named channels or networks confused. Sometimes just as the trade-name "Thermos" is often applied to all vacuum flasks, and "Hoover" to all vacuum cleaners, so also may "BBC", or the name of some other prominent broadcaster be attached in the minds of a viewer or listener to another station.

When we ask what programmes a respondent listened to or watched on the previous day, we may need to use "prompts" - that is titles or phrases likely to help respondents recall and identify exactly what they listened to or watched. It is much easier when radio or television channels have clear and unambiguous names or call signs which are used frequently on the air. When channels, networks and programmes have weaker identities it is more difficult in an interview to establish if listening or viewing has taken place. Sometimes the interviewer can carry a small cassette recorder to play taped stimuli, which can be, for example, the station's announcements, opening signature tunes of programmes, familiar voices and so on. It is

possible to establish if a respondent has heard any of a number of radio stations or programmes by playing a series of recorded excerpts. This is obviously more difficult with television although it is possible to do something similar combining taped extracts with show cards or pictures taken from the programmes in question. Sometimes a respondent will more easily recognise a familiar programme in this way than from its name read out from a questionnaire.

Only experience will tell an audience researcher what methods to use to overcome the difficulties and problems that are always encountered. All forms of opinion and market research, of which audience research is but one division, need to adapt to different cultural and environmental circumstances.

Audience Opinion and Reaction

The measurement surveys described can also be used to provide some reactions to programmes, but these will usually be limited. Surveys may not be suitable for obtaining detailed reaction. The best way to assess audience reaction and opinion is to design specific research vehicles for the purpose.

Panels

Panels are one of the earliest methods of research into audience opinion. Listeners or viewers are selected and invited to help by being members of a panel. The panel never meets; the word denotes merely a group of people chosen to carry out a specific function over a given period of time. One of the main advantages is that it enables behaviour and opinion to be measured or assessed for various

programmes over time *among the same people.*

One of the first uses of the panel approach in audience research was in the BBC when listeners to "variety" (light entertainment) programmes were invited to volunteer. A series of appeals in the press and on-air explained that they would have only fairly simple tasks to perform and that it would help the BBC to give a better service.

The response was an astonishing 47,000 volunteers. It was decided to enroll only 2,000. But how should they be selected? Nowadays, the panel would be selected to match what we know about the demographics of those who listen to (in this case) light entertainment programmes. But at that time (1937) audience measurement had not begun and they had no data on which to base any selection. Instead they sought to match the panel with the general population whose demographics were known. The volunteers were biased towards men, were younger than the population as a whole and they had a slight middle class bias. The South-East was over-represented. The important point to note here is that they were not selected to represent listeners to light entertainment programmes, but the population as a whole.

Imbalances were consciously removed in the selection of 2,000 who were enrolled for a twelve-week period. Each week they were sent a log, listing the forthcoming week's light entertainment programmes - usually about 35 of them. Panel members were asked to record which of them they listened to, and whether they had listened to all or part of the programme.

The main purpose of this exercise was, before the establishment of regular audience measurement, to find out what they could about what was listened to, for how long and by what kinds of people. Later all this could be better supplied by a fully representative survey. As was soon discovered, the nature of volunteers makes them not typical of the audience as a whole, and a volunteer panel

like this was an unsatisfactory basis for "inferring the *absolute* quantity of the general public's listening programme by programme". However, it can be a reasonably reliable guide to the relative popularity of different programmes.[21]

I have mentioned this early experiment to show that inexpensive and simple methods can be used for research when representative surveys are impractical or cannot be carried out very regularly. They can be used between surveys to plot the relative popularity of different programmes and the demographic nature of the different audiences for them. If selected in a purposive way to be representative of the whole population and invited to take part in research over a period of time, panels can be used for quantitative measurement. Polish radio and television audience research has been done in this way for some years. Consumer panels are sometimes used in market research to measure other things - consumption of consumer goods, use of various services and so on.

Panels are more usually used nowadays for the assessment of opinions and reactions in audience research. To obtain the most representative results it is best to select a panel according to criteria set by the nature of what is being sought, and to be fully in control of the selection. However, volunteer panels may still be used because they do have certain advantages.

It is best to illustrate how panels may be selected by an example. Let us suppose we need a panel to provide us with regular feedback and reaction to a network which specialises in cultural and arts programmes. We want to obtain a representative panel of the audience. But what constitutes the audience? Someone who normally listens or watches the channel in question everyday is obviously a member. But what of the person who watches or listens very occasionally? He or she is a part of the audience and will have views that you will want to take into account. It is not a good idea to encourage panel mem-

bers to do any duty listening or viewing; you want them to behave normally and you ask them to report on or react to the programmes they encounter in their normal viewing or listening behaviour. You may find that such a panel member has nothing to report in the period of his or her membership of the panel. That has to be accepted as a reflection of the reality we are attempting to measure. However, we may decide to eliminate the occasional audience.

Practically speaking, your panel may have to consist of those who listen or view programmes on a fairly regular basis. One method of selection is through face-to-face interviews during the course of quantitative research. The respondent who, from his or her answers, fits the description required for the panel can be invited to become a member.

One disadvantage of this approach is that it can take a long time to find a panel for minority programmes. Another is that having selected one you may find that the viewing or listening habits of the selected provide insufficient data for analysis. For example, you may invite 1,000 people to be panel members and send them all the weekly or fortnightly questionnaires asking for reactions to programmes listed. But response to any one of these programmes may be only ten or twenty people - too few cases for analysis.

You can, of course, guard against this by greatly increasing the size of the panel so as to ensure that even for minority programmes you would probably get a sufficient response. But this can be very expensive in postage and labour.

For more than forty years, listener reactions to programmes on the BBC were collected via a volunteer general listening panel. 3,000 panel members aged 12 and over were recruited by broadcast appeals for volunteers on the three, later four national radio networks. People who wrote in to offer their services were asked to give certain information about themselves. The panel was then selected to be representative of the network's audience

in terms of age, social class, sex and geographical region. The panel members, who served for two years, each received a weekly booklet with questions about programmes in the radio network they listened to most. It worked very well in supplying regular information on reactions to programmes from a sizeable number of responses. But how representative was it? Were volunteers different in some way from those who didn't volunteer?

Inevitably, what was really a self-selected sample was different in being more articulate and biased towards the middle class, despite all attempts to correct this. The panel was dominated by listeners to the more serious kinds of programmes. It was replaced in 1984 by panels based on a controlled recruitment method. The Daily Survey provided an excellent source for this. Light listeners - those who listened to less than 10 hours radio in a week - were excluded. It meant excluding one in three of all listeners to the BBC but it was the only practical way to proceed. Infrequent listeners would hardly maintain interest in the task if they found themselves regularly returning blank questionnaires. Excluding them undoubtedly reduced the representative nature of the panel, but it was noted that the infrequent listeners accounted for only 10% of listening to the networks in question.

The panel was selected to represent the radio audience as a whole, structured by class, sex, age, social class and geographical distribution. It was grouped into nine categories according to the listening habits of the individuals. In general, the groups represented listeners to any of the four national BBC networks or combinations of networks. However, there was a problem about the arts and culture network, Radio 3, which brings us back to our example. In the sample recruited for the panel, few had listened to any Radio 3 programmes in the previous week and it was known that many were infrequent users. With Radio 3 and other networks like it, it is necessary to over-represent in order to secure enough data for analysis. And so it was that the Radio 3 panel

was boosted by appeals in the traditional manner for volunteers whose replies are used only just for the analysis of response to Radio 3 programmes.[22]

In countries where illiteracy is high, panels can nonetheless be used effectively. If what is needed is informed, considered feedback from literate listeners and viewers, panels can be very useful, provided that it is remembered that they do not represent the opinions of the unrepresented illiterates.

It is a good idea to give a modest incentive to members of a listening or viewing panel. Members of GBC's listening panels in Ghana used to have a free subscription to the now defunct *Radio and TV Times*. They now get a free TV licence and, if they have rediffusion radio (an early form of cable or wired radio still in use), they pay no hire fee.[23]

Postal Questionnaires

Questionnaires can be sent by post to listeners or viewers with an explanation and instructions on how to fill them in. There are many drawbacks, not the least of which is the fact that they are usable solely among literates. They must also leave nothing to chance. They must be well presented and constructed, with the minimum of ambiguity. There is no one to answer questions or explain anything about the questions!

Reply postage has to be paid and often it helps to send reminders! Although mail surveys are cheap, they are not as widespread in use as they might be. The problem is that the response rate can be only 40% or less. It requires a lot of skill and determination to obtain a high response rate.

Some say that mail surveys are slow and that they should not be used when survey data are required urgently. I do not share this view entirely. If the survey is well-planned, it is possible to complete all stages within four weeks. It is hard work but possible. My

department has done this internationally, and it is possible within a month within one country. The main problem is one of representativeness. Listeners' addresses are needed. If you use listener's letters you are using a self-selected sample. People who write letters to radio or television stations are not typical of the audience as a whole. There is no easy solution to this problem unless a representative address list can be obtained for use as a sampling frame.

If people who write letters are untypical and unrepresentative can they ever be used for postal questionnaire research? With caution and within limitations they can. Postal research may be the only method possible. Sometimes the information one needs is not required to be provided with great precision. An example from BBC World Service experience can illustrate. Senior managers had decided to switch a new transmitter covering Area A in order to cover Area B. Both areas had other transmitters giving some service. But Area B was an area which was felt to be badly served. But one senior manager was unhappy. What of listeners in Area A? The decision was postponed for just over a month. If it could be shown that Area A would be seriously affected the decision might be reconsidered.

There was no time for an on-the-ground face-to-face survey in Area A. Telephone penetration was low. Listenership to the service affected was probably loyal and keen but relatively small and scattered. The only way to discover how much reliance was placed on the transmitter in question was to send a simple questionnaire to recent correspondents in Area A to the affected service asking them which of the radio frequencies available they used to listen. The results from the returned postcard questionnaires showed a very high level of reliance on the service provided by the transmitter in question rather than to the other signals available. The decision was rescinded and alternative arrangements were made to serve Area B. The exact

numbers and percentages did not matter. All that was needed was an answer to the question "if we move the transmitter from Area A will a lot of existing listeners be affected?" The answer was "yes".

On-air Questionnaires

These are employed usually only for radio audience research. Listeners are asked to write in with some answers to some simple questions. Only four or five questions can be asked. Prizes can be offered from a draw as an incentive. These can be used quite effectively, especially when other methods are not possible. The main weakness is that you obtain an entirely self-selected sample which cannot be said to be representative of the audience as a whole. However, there are two ways in which I believe the use of questions on the air is effective. Research in the BBC World Service's audience research department shows that self-selected respondents' replies on technical and reception matters are fairly reliable in that those who do not write in response to on-air questions would not give information that was very different. In 1990 the BBC World Service asked on-air questions about the radio frequency being used by the listener at that moment. More than 100,000 answers were received and the analysis provided a very valuable comparative global picture of the way in which the BBC's various frequencies from different transmitters were being used. It enabled some major savings to be made on transmitter costs.

The other circumstance in which the method can be used is when areas are closed to field research for political or other reasons. International radio stations sometimes use this method to learn something about their listeners in such areas. One good example I have seen was carried out by the Christian radio station FEBC in the Philippines. They obtained useful and encouraging feedback from and information about their listeners in Burma. Listeners

were asked to write in with a few simple answers to questions about themselves. The station was able, for the first time, to gain an idea of who listeners were. [24]

Appreciation Indices

Producers, programme makers and planners need to know not only who listens or watches and how many, but also what they think of the programme. We have seen various ways in which opinions can be measured. Appreciation Indices or AIs are a commonly used method in some countries. They have strengths and weaknesses.

Audience *size* is a useful guide to overall performance of a particular network or programme on that network. But it cannot be the whole story. We do need to take account of audience appreciation as a measure of a programme's achievement. People may listen or view a programme merely because it was on at a time when they usually listen or view. What did they think of it?

A programme may attract a low audience but be appreciated very much by those who did watch or listen. That might well be thought as a satisfactory and worthwhile achievement, especially within public service rather than commercial broadcasting. Sometimes a programme with a small audience and a high AI may attract new listeners or viewers. The programme is talked about by the enthusiastic minority and others try it out, like what they see or hear and become regulars. Sometimes high AIs can be predictors of audience growth for the programme in question.

This is how AIs are achieved. They are usually used on diaries. Listeners or viewers are asked for their reaction to named programmes. Often only a selection of programmes will be asked about; sometimes the viewer or listener is asked to give a view on all programmes encountered.

On the BBC Daily Survey which was used to measure radio audiences, all respon-

dents aged 12 and over were asked to complete a booklet called *What You Think of What You Watch*. In it were listed various TV programmes over the next five days. They are asked not to do any special viewing but to answer questions only about their normal viewing.

Most of the questionnaire concerned AIs. Each respondent was asked to rate each programme they watched themselves on a six point scale form "extremely interesting and/or enjoyable" to "not at all interesting and/or enjoyable".

For every television programme the percentage of viewers who recorded each level of appreciation is calculated. From these is then calculated the AI as a percentage.

Extremely interesting and/or enjoyable	6 28%	5 29%	4 26%	3 8%	2 6%	1 3%	Not at all interesting and/or enjoyable

The AI is the mean of these calculated as a percentage. The score of 1 is eliminated. We are left with 5 scores of appreciation of different levels. The calculation is made by assigning scores to each from 5 to 1.[25]

These AIs are not absolute measures. Their value is in *comparability* between programmes of a similar type, or of the same programmes in a series. Experience shows

what AIs a drama programme will normally get. One can then see if a particular programme achieves a higher or lower than normal AI.

$$\frac{(28 \times 5) + (29 \times 4) + (26 \times 3) + (8 \times 2) + (6 \times 1)}{500}$$
$$= 71$$

This is another way of scoring scale questions.

For radio a similar method can be used. In Britain a five-point scale ranging from "Very well worth hearing" down to "Not worth hearing" is used. The number of points in the scale can be higher or lower but experience shows that 5 or 6 point scales work well.

Indices can also be provided on specific opinions about a programme. For example, a radio service may have featured an interview with a leading politician, perhaps the prime minister. A specific question or set of questions can be asked.

Individual scores and overall indices for each aspect can be given. The decision on how to report results must depend on how the results emerge. The issue with all research reporting is how to make complexity simple. Instead of a set of figures it may be sufficient to report in words what the average of opinions in each category was - most listeners found it interesting, most found X a good interviewer, although a substantial minority thought he was too deferential, etc.

	Agree	Agree Somewhat	Neither Agree Nor Disagree	Disagree	Disagree Strongly
X was a good interviewer	5	4	3	2	1
X was too deferential - he did not ask really searching questions	5	4	3	2	1
The Prime Minister dealt with questions well.	5	4	3	2	1
I learned a lot from this interview	5	4	3	2	1
I found this interview interesting	5	4	3	2	1

Qualitative Research

The reason for doing qualitative research is to add depth and understanding to the "dry" data and figures from quantitative research and from the mainly statistical data obtained from panels, and the various uses of questionnaires described in the last section. In both the main kinds of research described so far, "qualitative" data are obtained and are essential. But numbers cannot explain everything. Nor can they always provide insights into the complexities of audience attitude and behaviour Other forms of research are often used that provide no numbers or percentages, but give interpretive information. Often this kind of research is done in conjunction with quantitative research and it can help in the understanding of the latter. It can also be used as a prelude to quantitative research by exploring the issues and motivations which are most relevant in the choices people make when using radio and television. The two main methods of qualitative research are focus groups or group discussions and in-depth interviews.

Methods and Uses of Qualitative Research

The techniques of qualitative research are not at all easy to describe. Whereas questionnaire design and sampling both have procedures to be followed which are relatively straightforward and can be itemised, the same is not so true for qualitative research.

The main difference is implied in the word itself. *Qualitative* denotes interpretative and exploratory activities, rather than factually descriptive. We are not usually involved here in precisely defined terms nor in accurate measures of human behaviour or attitude.

In qualitative research we normally use only relatively small numbers of people.

Structured questionnaires are not used and the results are not normally open to any kind of statistical analysis. Qualitative research cannot prove or disprove anything in the way that quantitative research may be able to. But used effectively and appropriately, qualitative research may be the only way we can really *understand* peoples motivations, attitudes and behaviour.

Despite the impression one might form of the imprecision of qualitative research, there are good research practices that should be followed and which enhance the value and reliability of what is discovered from the research.

The most common form of qualitative research is the *group discussion*. People are selected and/or invited to meet together with a trained moderator to discuss some aspect of, in this case, television or radio broadcasting. The same techniques are used in product and advertising research. It is usually agreed beforehand what kinds of people are to be involved. Normally groups need to be matched quite deliberately and carefully. It is unusual for people of different sex to be included in the same group. It is also usually inappropriate for people of widely different ages to be included in the same group. Class, wealth and education are also important factors; it is not wise in many societies, to mix privileged and under-privileged, or very educated and uneducated. Knowledge and experience of the subject being researched is also important. It is not a good idea to mix experience with inexperience, for the latter will be swamped by the former.

It can be readily seen already that to cover all possible combinations of demographic characteristics one would need many groups. If, for example, we divided people into the two sexes and, let us say, three age groups, we would have six groups:

Then if we divided by class, education and wealth (usually inter-related) and made three categories of these, one would have 18 groups. Further three way categorisation, by

	15-24	25-40	41 and over
Male	o	o	o
Female	o	o	o

experience or knowledge of the matter being researched for example, would give us 36, and so on. In practice this degree of subdivision of groups is not necessary. The choice of groups and their categories is determined by the subject matter. This point is returned to in some examples later.

The moderator is trained to lead the discussion. He or she usually begins general discussion which will then move to the particular. It is important to involve everyone present. The moderator will have a discussion guide which may include a series of questions. This is not a rigid framework but is designed to keep the discussion going along the desired lines and is a reminder to the moderator of the purpose of the research.

Qualitative research is often used in conjunction with quantitative survey research. It often precedes it, especially when the need is for some ideas about a situation which may be very unclear. In quantitative research one often designs questionnaires with a fairly clear picture about expected behaviour. But that is not always so. Often we have no idea about how people behave or what their attitudes are in some areas of audience activity. Qualitative research can give us the clues we need for quantitative research to be set in context.

But qualitative research can also be used after a piece of quantitative research. A survey may find that a particular programme for farmers enjoys a high audience among its intended listeners, and that it receives a high appreciation figure. But how do the farmers listen and what, if anything, happens as the results of their listening? This would be a suitable case for qualitative research which would probe first the way farmers used the media in general, the general way in which

they listen to the radio, where they got other kinds of information about farming and what they thought of all this. Then the discussion would narrow down to the particular programme in question. What programme do they remember in particular? What was memorable and why? The discussion might find out much that is unlikely to be uncovered by any usual radio listening questionnaire or diary. One way of describing qualitative research I like is that it puts *colour into a black and white picture*.

Qualitative research often uncovers things that no face-to-face structured questionnaire would. A good moderator can shift the discussion in any direction and this can lead to the discovery of information that can be wholly unpredicted and unexpected. Questionnaires, by their very nature, measure ranges of *expected* behaviour and attitude. They cannot deal with the more subtle and hidden meanings in human response and behaviour which can be very important in audience research. Very often people don't know their own attitudes and motivations, or they know them only superficially. Or a person may express a mild opinion in favour of something in response to a question, while in conversation in a group he or she may make it clear that the views held are very strong ones.

Qualitative research is most commonly used in audience research to:-

Discover behaviour and attitudes ranges that can be tested quantitatively.

Define areas for research on a larger scale.

Eliminate irrelevant areas from larger scale quantitative research which follows.

Illustrate or expand what has been discovered in a quantitative survey.

Provide insights into the way existing services and programmes are used.

To provide a richer range of responses to particular programmes than is provided by the questionnaire methods so far described.

Provide ideas for programme makers and planners.

Group discussions usually involve between 6 and 10 people. Too large a group can lead to some members losing interest or to the development of sub-groups within the group. 8 seems to be the ideal in most current practice. The discussion usually takes place between one and a half and three hours. The same group can be reconvened to carry on a discussion or, more often in audience research, to listen to or watch a programme or programmes. Reconvened groups can gauge perceptions and attitudes and how these change over time. In audience research they can be very useful for considering new programmes or services and then plotting attitudes when these are developed and introduced.

Sometimes group discussions can last longer than two hours if the subject matter really does require some in-depth discussion. The point to make about groups is that all the "rules" are only guidelines and can be modified according to requirements.

The other main form of qualitative research often used is the in-depth individual interview. These are used in various cases. For example, there are some people who, because of the nature of their job will never take part in group discussions. Very senior civil servants, managing directors of large companies and other senior executives, politicians and other high status people may be of interest in audience research. Specialists in various fields, relevant to the research, may also be dealt with more effectively by in-depth interviews. In-depth interviews are also used when the subject being researched is sensitive or emotive or otherwise not suitable for discussion in a group. When the subject is very complex it may also be better dealt with in an in-depth interview.

Various techniques can be used in qualitative research to stimulate better response. There are many of these and many ways of leading discussions and conducting in-depth interviews. The bibliography points to further reading in the field.

Qualitative research is used quite extensively in audience research in the process of developing new programme ideas and services or of modifying or transforming existing ones. An example will help illustrate this.

In 1982 a new science series, QED, was launched on BBC television. The target was a mass audience, not a well-informed, technically educated one. It presented a series of programmes, each one of which was on a different scientific or technical subject. The aim was to do this in an appealing and easily understood way.

Research was needed to find out, among other things, how well the programmes were understood, how viewers had categorised the programmes and their satisfaction with, interest in and enjoyment of the programmes. If the researchers had provided the programme makers with numerical figures or percentages showing that most had enjoyed and understood the programmes, no doubt the producers would have been pleased, but their *understanding* of audience response would have been little improved. Instead it was decided that in order to really understand audience values, qualitative research would be used. Producers wanted detailed in-depth reactions from viewers. So it was decided to convene six groups each of eight viewers of QED. The groups were to discuss programmes about science in general and QED in particular. At each group a recent edition of the programme was played about halfway through the session.

The groups were kept fairly informal. They were conducted in the homes of the moderators. Respondents were allowed, indeed encouraged to talk freely and among themselves about the subject of TV programmes on science. None of those involved

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knew beforehand what the subject of discussion would be.

The discussions showed that the issues identified as important by the viewers were broadly similar to those of the producers.[26] Viewers did categorise the programme in the area of "science for the layman" intended by the programme makers. The research underlined the importance of presentation in helping the understanding of otherwise complex subjects. Respondents were quite enthusiastic about an informative series which was nonetheless entertaining and not heavy-handed or dull. Some criticisms emerged however, and they did so sufficiently across the groups to convince one that this was probably a reliable reflection of more widely held views. Most of the criticisms grew from the series' own success and popularity. Its viewers expected more than the programmes were able to provide. For example, there was some criticism of the structure, some viewers complaining about the lack of logical flow of subject matter.

Although most could understand the programmes they did not always feel they had always learned very much. They wanted simplicity, but this should not mean a lack of content. Interestingly, when viewers felt they were able to learn something, enjoyment was greatly increased.

What did the producers do with the research? They were pleased to discover that the audience welcomed and appreciated the programme idea, that the level of content was about right and that the variety in style in the programme was not an obstacle.

As a result of the criticisms however, certain changes were made. The narrative structure was improved. Producers tried to avoid inconclusive or muddling subjects and they tried to ensure that programmes contained more "nuggets" of information. The series, which had little identity of its own for the viewers to remember, was, after the research, given a stronger identity with its own presenter, more use of programme logos and use of the title, Q.E.D.[27]

How are participants for qualitative research selected? Much depends on what you want to achieve. If you want in-depth opinions of viewers or listeners to a particular programme or type of programme, it is possible to identify such people in a quantitative audience survey. For example, in an audience measurement questionnaire, questions can be inserted designed to select the kind of respondent you are looking for. It may be farmers who listen to farming programmes on the radio, or teachers who use television at school, or women with young children who are interested in health and nutrition, and so on.

Desk Research

What can be learned about the audience from existing data? Too often broadcasting stations make insufficient use of data already available, from the census, from departments of agriculture, health, housing etc. Other research "vehicles" may already exist which will provide useful data on a regular or occasional basis.

Is information available about broadcasting competitors? In multilingual countries there is usually a good deal of very valuable data on language use, comprehension and ability, of enormous value to broadcasters. Are production and/or import figures for TV and radio sets available? Has other research been done into leisure, education, daily life or any other aspect of life that would be useful when planning broadcasts? Many audience research departments have responsibilities for this kind of research and maintain libraries of information of value in strategic planning, programme making, scheduling and much more besides.

Universities can be a very useful source of research and I believe it is a great pity that there is not more cooperation between the academic and broadcasting research communities. Audience researchers tend to look

askance at the academics, accusing them of far too much theory with little empirical evidence, whilst the academics scorn the audience researchers' apparent lack of theoretical base and their apparent attachment to numbers and the banal pursuit of ratings. In fact each has a lot to offer the other. There is a wealth of important data in broadcasting organisations that is often not fully analysed because full use for broadcasting planning purposes has been made of the significant parts. For broadcasters, yesterday's data are history. As a result a lot of information is never fully analysed. At the same time we see a lot of academic work which uses little or no field research in reaching conclusions about radio and television viewing. The freedom academic researchers have from the day-to-day constraints and demands of a broadcasting organisation could give them the ability to discern trends and other information from the data collected by audience research departments. They could also provide the much needed critical element in the process of audience research. If there was as much cooperation in broadcasting research as there is in most other areas of research - in medicine, the chemical industry or engineering for example - both the academic and broadcasting organisation research communities would benefit greatly.

Sometimes audience research departments become quite closely involved in research *for* programmes. For example, Indian television Doordashan's audience research department did a study of a medical and social research institute at Karigiri on which an award-winning programme was made. The project gave birth to a new concept and philosophy for audience research, i.e. to provide direct support and input and become an integral part of programme development. The orientation changed from merely evaluating (or crudely speaking, auditing) the programmes as an outsider, to a more active role of a constituent in the production team.[28]

Listeners' and Viewers' Letters

How reliable are letters or word-of-mouth communications to broadcasters? What do they represent? Why is over-reliance on letters dangerous? How can they be misleading? What should they be used for and when can they be reasonably reliable? Can a systematic study of the mail be a useful guide to programme makers and planners? As we have shown already, listeners' letters provide addresses which can be used for the despatch of postal questionnaires. But are the letters themselves and statistics compiled from them of value to audience research?

Letters take on an added importance when research is not very regular, or where there is little or none at all. In these cases letters can be highly misleading. Sometimes they are used as if they were a barometer of listener opinion, even a meter of audience size. But letters can tell you very little, if anything, about listener opinion or the number of listeners.

I lose count of the arguments I have had with producers about this! Many research projects in Britain and elsewhere have shown conclusively and consistently that those who write do not represent the generality of opinion. A letter represents the person who wrote the letter and no one else. The opinion expressed may be the opinion of many others. It may be a minority view. You have no way of telling without research. You may get thousands of letters of complaint about something and only a few letters of praise or contentment about the same thing. The latter may represent the majority opinion!

Reliance on letters can be very misleading. This makes reliable audience research so important - to show producers what their audience is really like - because there is always a tendency to take too much notice of opinions in letters.

None of this is to suggest that letters are unimportant and should be dismissed. My department in the BBC World Service employs more in handling listener's letters than in research. This is not because letters are more important but because handling letters in more than thirty languages is a labour-intensive activity. Letters are valuable for their individuality. Broadcasting is about addressing large numbers of individuals and the spontaneous responses of those people are of great value, not least to the creative broadcaster. But they should not be used for purposes for which they are not suitable.

The most absurd use of letters is when a station attempts a spurious estimate of its audience size by multiplying every letter received by 100 or 200 and claiming this as a true audience estimate! I know of at least two international radio stations which have used this nonsensical method!

This leads to another rule to remember. There is no relationship between numbers of letters and numbers of listeners or viewers. The BBC Arabic Service audience grew in 1990-91 during the war in the Gulf. The number of letters fell. The BBC Hindi language service has about 20 times as many listeners as the Tamil language service. It receives about the same number of letters. However, letters can stimulate research. When producers receive letters which tend to reflect one dominant view, research in the field among a representative cross-section of listeners or viewers can reveal the true state of opinion on the matter.

Data Analysis

The rapid advances of computer technology have opened up enormous opportunities for audience research. The work of data analysis used to be very complex and time-consuming.

Computers speed and simplify the work. They have made possible the development of databases for audience information. Research was reported in long and comprehensive papers and documents. This is still done but it is not always necessary or desirable. Data can be stored and information provided on request as it is needed. For example, surveys almost always provide far more information than can be digested in a single report. What do the users need at any time? If a comprehensive database on audiences is maintained and kept up-to-date, it can be used to answer questions as they occur.

Interpretation and Terminology

Most audience research activity is quantitative. A lot of figures are produced. What do they mean and what do we do with them? The answer depends a good deal on the purpose of providing the figures.

We measure audiences for programmes but what do we want to measure? What measure of the audience interests us? This is not a silly question. If we say that the evening news on television's main national channel had a 20% audience, what does this mean?

Coverage

The first point to be clear about is the coverage - what is the *universe*? 20% of what? It could be the population aged 4 and over, 12 and over, 14 and over, depending on the age covered by the research method.

Is it 20% of everyone over that age, or 20% of people in TV households? Usually figures are given for whole populations not only TV households, but one needs to make it clear.

We discover that we mean that 20% of the population aged 12 and over watched this particular news bulletin. Is that clear now? Are there any further questions?

What do we Mean by "Listen" or "Watch"?

If someone watched for only one minute a news programme lasting half an hour, did he or she "watch" the programme? What if he or she watched for ten minutes? What about fifteen minutes? At what stage do we admit the person to membership of the audience to the programme? There is no correct answer to this question. Different measures are used for different purposes but it is important to be clear, when we use figures, exactly what they mean.

Try another way of measuring audiences. One might ask the question "How many people in Zambia listen to Radio Four?" What is meant by this question? What would it mean if we said that half the adult population listen to Radio Four? We might mean that on average, each day, half the population listen to at least one programme on Radio Four. We might mean that on average, each week half the population listen. Or we could mean that of all the radio listening that occurs, half of it is to Radio Four. Or we could mean that on average, at any time, about half the radio listening is to Radio Four.

All these measures, and there are more, mean different things. They are all used at various times and they have different uses. They are very different. You can easily have a TV station which is heard by at least half the population in a week which reaches only 20% of them on a single day and which has less than 5% of the TV audience at any time and even less of a share overall. Note the uses of these words "reach" and "share". They are used a lot in audience research. There follows an explanation of some com-

monly used terminology. The list is neither exclusive nor complete. Other measures exist. No doubt specially designed measures could still be devised for different circumstances, especially in underdeveloped regions where special audience research needs may emerge.

Some Audience Research Terms

Reach

The percentage of the population (usually over a certain age) who listened to or watched at least some of a programme, or part of a network, during a day or week. Thus we have three common uses:

Programme reach: The percentage who watched or listened to at least some of the programme (A minimum period needs to be defined. It could be a minute, or it could be at least five minutes. Practice varies.)

Daily Reach: The percentage of the population who watch or listen at least once to the network in question in a day.

Weekly Reach: The percentage who watch or listen at least once in a week.

Reach is a useful figure for public service broadcasters who need to know if their services are reaching the majority of the population who pay for them. It may be that no single programme or a public service network enjoys the largest audience figures. But if the network is appealing to many different tastes and interests it can, across a day or, even more so, a week, have an impressive reach. Thus, if we take Radio Four in the United Kingdom, we find that at no time does its audience exceed 4%, but it has a weekly reach of 14% of the population. No BBC Radio programme reaches an audience higher than about 5% but the weekly reach of any BBC radio in 1989 was 59%. Commercial radio reached 33% in an average week. [29]

The television figures are also interesting. BBC2, the second channel, tends to carry more minority interest programmes than BBC1. Its largest audiences are about 5% or 6%. Yet its weekly reach is an impressive 77%.[30]

In the USA, Canada, Australia and some other countries, the term "cumulative audience" or "cume" is used. It means the same as "reach" but is often used for very short time periods. For example, one reads of quarter-hour "cumes" meaning the number or percentage of people reached or accumulated in one quarter of an hour.

Amount of Listening or Viewing

Reach obviously tells us nothing about the *quantity* of listening or viewing. How much time do people spend watching television or listening to the radio?

For an example, we can use television audience figures for France for the week June 3rd to 9th 1991. The average amount of viewing per individual aged 6 and over is given as an average for one day.

Channel	Hours and Minutes per Day %
TF 1	1.14
Antenne 2	0.40
FR 3	0.24
Canal Plus	0.09
La Cinq	0.20
M 6	0.15
All Others	0.02
Any TV	3.04

[31]

It is important to note what these figures mean. It is rather unlikely that they represent any individual's viewing behaviour! The figures are obtained by adding up all the viewing to each channel and dividing the total by the number of individuals.

Share

The amount of viewing or listening translates very easily into *share*. The term is derived from market research. In the washing powder market, for example, we might say that Surf had a 20% share. This would mean that of all the sales of washing powder, 20% of the sales (usually by volume, not price) was of the Surf brand.

In the above list, the total amount of viewing is three hours and four minutes. Share is calculated as a percentage of that daily average.

Channel	Share %
TFI	40.1
Antenne 2	21.6
FR 3	13.0
Canal Plus	4.7
La Cinq	10.6
M 6	8.1
All Others	1.9
Any TV	100.0 %

How Research is Used

Research is not done for its own sake. It must have a purpose. Public service broadcasters throughout the developed world have faced the problem in recent years of intense competition from commercially funded broadcasters. They have used research to meet this challenge by seeking to understand viewer and listener behaviour better so as to maintain audience loyalty. Research has also been an essential element in seeking to demonstrate publicly the value of continued support from public funds (licences, taxes or other) for public service broadcasting. Research can determine the use made by the public of various services which may not have high levels of overall popularity but which serve separate minority interests and tastes. For example, commercial broadcasters usually target large audiences with considerable spending power in order to attract advertisers wishing to sell their goods and services. Public service broadcasters may do the same for part of the time; many raise funds through advertising in precisely the same way. Both need audience research data to demonstrate to advertisers what kinds of people and how many are "delivered" by different programmes and at different times. But public service broadcasters have a wider mandate. They derive their existence from the claim to serve all the people of a country or region. They may seek to raise levels of cultural awareness and to produce programmes which are chal-

lenging and worthwhile in quality and content. Many public service broadcasters are major sponsors of the arts, employing orchestras and drama units, commissioning new examples of creative writing and new music. Few of these things attract sufficient advertiser interest and usually need public funding, often through public service broadcasting. Audience research can be used to determine levels of public support for this which is not simply attached to the numbers in the audience.

We find here that the concept of separate and distinct minority interests is important. Public service broadcasters can, through surveys and qualitative research, demonstrate support from those who appreciate very highly the cultural fare on offer, even though quantitatively the audiences may not be large. Similarly, they may seek to serve other minority interests through specially targeted programmes. The BBC in Britain, the CBC in Canada and many other public service broadcasting corporations have programmes for ethnic minorities, for farmers, for school leavers, for people interested in photography, antiques, philosophy or history. Sometimes such programmes can and do have a wider, even mass appeal. But support for such programming can come from those with strong attachments to these subjects. Specially targeted research can be designed to discover if the intended audiences of farmers, teachers or

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subject enthusiasts are being reached and, if so, what they think of the programmes. There is a tendency now in many public service broadcasting stations towards more emphasis on this kind of programme and the research needed to support it.

But public service broadcasting stations also wish to attract general audiences through making popular programmes of wide appeal. Audience research is an essential part of any strategy to do this. New Zealand's National Radio, reorganised and renamed recently to meet the intense competition of private stations, has made substantial use of audience research in this process. Research provided detailed information about the times of day different age groups listened and the different interests and preferences of these groups. For example, older listeners who were prominent among the afternoon audience, preferred European light classical music and wanted more of it. The network carried a lot already but this was not the perception of the listeners who like this kind of music. It was decided to devote an hour to classical music between 3 and 4 p.m. After the change, research showed a favourable reaction. There was an increase in listening.

National Radio broadcast a lot of news and current affairs, especially during the morning peak when a news programme "Good Morning New Zealand" runs from 6 am to 9 am. Audience measurement, which in New Zealand is done by the diary method, showed a declining audience. Further investigation showed the audience loss was to a commercial competitor at 7 am. Some qualitative research through focus groups (group discussions) was commissioned. Some of these were conducted among existing listeners, while others researched were from among those who had stopped listening to the programme. The research focused on four issues:

-The morning routines of both listeners and lapsed listeners and how these influenced listening habits.

-The characteristics of those who listen to National Radio and those who have lapsed.

-The characteristics of occasional and potential listeners.

-Reaction to the content and format of "Good Morning New Zealand" and competitor stations' breakfast programmes, especially at 7 a.m.[32]

When the groups met, extracts from both the National Radio and the competitor in the period 7 to 7.14 am were played. The results showed that National Radio's presentation at 7 am made it sound to listeners like the beginning of an hour long programme of in-depth interviews. In contrast the competitor provided a news summary with a roundup of local, national, international, sports, financial and weather news. National Radio's offering was not perceived as a news bulletin at all. It started with a bulletin at 7 a.m. but it was not clearly differentiated in the listeners' mind from what followed. As a result of this research, New Zealand's National Radio made changes to its "Good Morning New Zealand" running order.

Similar research in other industrialised or urbanised parts of the world into radio listening before work in the morning shows that listeners appreciate fairly rapid and concise summaries of the main news items, weather, traffic news and so on, interspersed with related reports and interviews. Usually, few people listen at this time to more than 30 minutes and the programme or sequence structure needs to take account of this. Most listeners will join and leave the programme at various points between its beginning and end. If programme producers don't structure their programme accordingly, listeners may be lost, especially in an intensely competitive environment.

In RAI, the national public service broadcasting network in Italy, audience research took on a considerably enhanced role

when, in the 1980s, the Italian broadcasting environment was transformed by competition. Hundreds of private TV and radio stations appeared during the period. Most were small and lacked financial power to challenge RAI's dominance. However, there soon developed a large commercial radio and TV company, now one of the largest anywhere in Europe, Berlusconi's company Finninvest, which had the financial power to make inroads into RAI's audiences. RAI has used audience research to meet this challenge.

RAI's audience research department, Servizio Opinioni, has used TV meter data to look in the minutest detail at the channel switching behaviour of viewers. When they switch from RAI1 or RAI2, where do they switch to? What is on the other channel and what are they switching away from? The audience research department was able to answer these questions and the programme schedules were able to make changes accordingly. As a result, and unlike many other public service channels in Europe, RAI has retained a majority share of the audience. Critics argue that it has done so at the expense of quality in programmes. They point to the absence of documentaries on Italian TV and the higher level of what is seen as rather trivial light entertainment. However, RAI has used audience research also to *segment* its audience, that is to identify different tastes and interests and, most importantly, different life styles and times of viewing. It is this sort of research, using the now very detailed data available from electronic meters, which can help public service or commercial broadcasters achieve their objectives better - of targeting different interests or groups with the material in which they are interested.

In Italy new programmes are often pre-tested. Going back a stage, sometimes even before a pilot programme is made, a new concept or idea will be submitted for research. What do potential viewers or listeners think of the idea? RAI has re-introduced the technique used in the United States

in the 1930s and 1940s, of coincidental telephone interview, but not for audience measurement. Viewers or listeners have been asked for their opinions of what they have just heard or watched. One of the consequences of this research has been a strengthening of those aspects about which respondents have been positive.

As one of RAI's researchers explains, "RAI presents live broadcasting as its hallmark - both in news reporting and in light entertainment shows hosted by well-known personalities - and thereby creates an image of being constantly in touch with the real world..... This is the result of a precise strategy." [33]

The Ghana Broadcasting Corporation has a small audience research department which is there to "determine whether GBC is achieving the stated aims of broadcasting, namely to inform, educate, entertain and activate". It points out that Ghana has a particular need for audience research. The people who make the programmes "are usually people who have had a Western-oriented education. They live in urban areas and their cultural values and outlook may in some ways have alienated them from the relevant environments in which they operate. [They] cannot claim to have sufficient knowledge of their audience's habits, tastes, needs and aspirations"[34].

The attitude of both management and production staff is not always positive and helpful. Often audience research departments are bearers of bad tidings or report things that contradict or question existing assumptions. GBC's Audience Research Department warns new staff not to expect to be popular. There is an important task to be done to help production staff understand audience research and help them produce better programmes.

Audience research can help broadcasters improve their capacity to raise revenue. Even in relatively poor countries it is necessary to obtain accurate audience data so as to determine appropriate prices for advertising at different times of the day on TV and radio.

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This has been one important function of the Ghana Broadcasting Corporation's small research unit since it was established in the mid 1950s.

Despite its modest facilities and budget, GBC's audience research has been able to show that a morning transmission on TV would be viable and that there was popular demand for football commentaries in indigenous Ghanian languages. When research showed that schools were not using educational broadcasts intended for them these broadcasts were stopped and the problem was investigated before they were restarted. It was found that school time-tables did not fit in well with the broadcast schedules. The subjects did not harmonise with what the schools were doing. Many schools did not have listening facilities; others had problems getting sets repaired and so tried to use them as little as possible! Some schools were not served by electricity and could not afford to buy dry cell batteries. Some of these problems have been overcome and, since the transmissions restarted, take-up has improved.

Many TV stations pre-test films and imported programmes to find out beforehand what viewer reaction is likely to be. It may be that unanticipated reactions will be discovered. For example, it may be found that a particular series is appreciated more by older people but less by the generality of viewers. Such a programme might be placed at a time especially suitable for older people.

Many radio and television stations have meetings to review programmes. These programme review boards, as they are often called, usually include someone from the audience research department. He or she can do a number of important and useful things. Programme makers need advice on interpretation of whatever audience research data are available for the programmes being reviewed. Or it may be that the timing of the programme is being discussed. The researcher can come with evidence about audiences at the time of day when the programme is broadcast. Pro-

ducers are often fond of quoting from listeners' and viewers' letters or phone-calls. "This programme series has been immensely popular; I have had a sack-load of mail" is a not uncommon boast. Or alternatively another person present may say of a programme, "it's not very popular and we do seem to have had a lot of complaints". Producers engaged in creative work pay a good deal of attention to the views of colleagues. The representative from the audience research department has the important and heavy responsibility of speaking for the listener and viewer. What validity do the letters have? Is the programme as popular as the producers boast? Do the complaints reflect a general view?

The research expert won't always have answers to all the questions. Almost always there will be some things unknown or only partially covered by research. Programme reviews can have the vitally important role of linking research to the production process and of making a systematic and on-going study of the audience an integral part of the creative process in broadcasting and of the planning that goes into the commissioning and scheduling of programmes.

But the research department's members need to use great sensitivity. The head of research at Czech Radio recently put it this way. "Radio employees consider themselves to be creative personalities and therefore they do not like to confess any outside influence at all."[35]. He went on to point out that audience research is only one of many influences on broadcasting decisions and it is not easy to separate one from another. Audience researchers need to have the humility and common sense to accept that programmes should never be entirely led by audience research. But what is to be done when it appears that no notice is taken of their efforts? It is unprofessional for audience researchers to attempt to interfere; the task is to go on with the work of providing accurate, reliable and useful information, even when it appears that little use is being made of it.

A senior person in the BBC once told me he took no notice of the audience measurements we provided for him. I later discovered that he wasn't telling the truth, for when I asked him about some schedule changes he had made and some revisions to programmes, he admitted, rather sheepishly, it was because of what he knew about audiences from our research! This story might be dismissed as a case of awkwardness on his part. I don't think that this was so. Audience research data are noticed by everyone who sees them. Often what happens is that people absorb the information and then forget where they got it!

Interestingly, I find producers often much more interested in qualitative research than audience measurements. They are often fascinated by watching video recordings or hearing audio cassettes made of group discussions about their programmes. It is the kind of feedback they get from no other source. Conversations they have with listeners or viewers tend to be coloured by politeness. Listeners' and viewers' letters are useful, even stimulating or infuriating. But nothing is the same as comments of members of the audience obtained in a neutral situation.

Some producers, not surprisingly, like to boast about millions of viewers or listeners to their programmes. There can be an unhealthy obsession with numbers. Audience researchers know that a change in audience from one week to the next of one percentage point is probably not statistically significant and may be within the margin of error inherent in all sample surveys. This is a dilemma for the researcher . He or she has to speak up and explain that the increase may not be real. But this would seem to be casting doubt on the value of the exercise among people who have a secret belief, perhaps, that surveys are a bit doubtful anyway! Sensitivity, a thick skin and persistence are all qualities needed in our profession!

Research by itself neither achieves nor improves anything. It is the intelligent use of data from research, combined with other relevant information and the creativity of the programme makers which have impact. Research doesn't make decisions or changes, although sometimes the results of research point firmly in a certain direction. Usually, information about audience behaviour or response will enable programme makers, schedulers, planners, announcers and many others in the industry, make more informed choices and decisions in their work.

It is difficult to prove a link between improved broadcasting performance and audience research. One audience research executive wrote to me, "Over the past few years our management has paid increasing attention to research. Our audience sizes have increased and audiences are a little more satisfied than previously but we couldn't prove that these outcomes are due to the research."

What matters most are high standards in research and a commitment by management to the activity and to the use of the results. Research, supported by management, will address the concerns of the organisation and, if professionally and thoroughly carried out, research can only enhance the ability of the organisation to meet objectives, to grow, to improve and to change when change is necessary. Any business enterprise or public service requires accurate and relevant information. In a broadcasting organisation, audience research supplies an essential area of information about broadcasting activity.

Audience research can have a very important role in the development of broadcasting. In India, research has been used to provide information to guide decisions about new television and radio services. In the last few years a number of new local radio services have been started. In each case, surveys of radio listening habits in the locality were conducted at the planning stage.

Television development in India has also been guided to some extent by audience research since 1982 when national television began in India. It has gradually been extended to all main urban centres. Audience research

was used to plan this development in a very mixed and large country. Research provided information on timing, content and language for the new programmes. Research showed, for example, that television in India would succeed more if it made full use of the visual aspect of the medium and less reliance on the spoken word. Research also enabled the planning and development of successful new programme series.[36]

One thing however needs to be remembered at all times by anyone involved in using audience research. It is never the whole story and can never provide all the answers. It does not substitute for imagination and creativity. Audience research cannot tell if a new idea will translate successfully into a programme or series. It can only, with considerable difficulty, tell if a new series or programme type is likely to be popular. What it can do is to provide the kind of information, both of a quantitative and qualitative kind which will enable creative programme makers decide, and to help give those decisions a better likelihood of success.

The death in 1991 of radio producer and writer Andrew Boyle reminded me of one such case. Before 1965 at 1.00 p.m. there was a news bulletin on the BBC's Home Service (later renamed Radio Four), followed by various programmes, not of current affairs. Audiences were small. Andrew Boyle was convinced that a large audience could be built for an extended news magazine programme. Another idea he had was to employ a Fleet Street journalist as a presenter, instead of using a trained BBC newsreader (and one whose spoken style made most BBC voice specialists wince!) The programme "The World at One" was very successful, both in gaining audience and in enhancing the BBC's public service position. The successful programme team put together by Boyle went on to add two other programmes with similar degrees of success. Audience research can supply some information to help decisions of this kind. It can show low audiences at a time when they could be higher. It can research what people might be interested in hearing. It can even try our new programme ideas by using test or pilot programme material in discussion groups. But all this effort works best in harness with the creative energy and ideas of talented and imaginative programme makers.

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Appendix 1

INTERVIEWER'S MANUAL
Ghana Broadcasting Corporation

The Importance of Your Role in the Research

As an interviewer you will be playing an important role in the exercise. You are one of a team of about 70 interviewers with common goal of obtaining accurate and complete information about certain programmes of the GBC.

The quality of the Research will depend to a large extent on the effort you will make and the thoroughness with which you, and your fellow interviewers, will carry out your tasks. The information you collect becomes the foundation upon which all research reports will be based. The research reports cannot be better than the data you obtain.

2. You should not abandon your work: You are expected to work conscientiously and complete the area assigned to you in good time. You are not supposed to sit in your house and answer the questions yourself. You will not be permitted to resign from your work once you have started except for a very good reason.

3. You are not to engage in any other activity during the interviewing period.

Always remember that you are strictly forbidden to engage in any other activity such as petty trading, political or religious propaganda during the period of interviewing.

4. No unauthorised person should help in your work.

You should not permit anybody, not even members of your family to help in your work. Only trained interviewers or persons who are acceptable to the respondent are allowed to help you.

Your Behaviour as an Interviewer

1. Your behaviour is important - The success of the whole exercise depends to a large extent on how well the people you interview co-operate in giving you the information you ask for. Your success depends greatly upon your manner of approach.

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2. How to approach the people - Whenever you are about to enter a house for the interview, remember that you are a stranger to the house and you must therefore observe all the rules and customs governing visits to other people's houses.

a) Knock before you enter
b) Greet the people in the customary way
c) Look cheerful
d) Ask for an elder of the house and explain to him briefly the object of your visit.

Example:Good Evening Sir/Madam, I am a research assistant from the GBC and my work is to interview some people in this area about some of our programmes.

The information you give me will be treated as strictly confidential and will not be disclosed to anybody. This information will help the GBC to produce programmes to the taste of the public.

e) Immediately after your brief explanation you should proceed to obtain the information required. Do not spend more time than necessary with any person.

3. Language of the Interview - You should as far as possible conduct your interview in a language which is understood by the person who is answering your questions.

4. The dress you put on matters - Do not do anything to frighten the people whose cooperation you are seeking. Therefore do not dress like a policeman, a soldier, a tax-collector, a sanitary inspector or a scout. Put on a simple dress which will not arouse suspicion.

5. Patience and tact are needed - Remember that you should be very patient however provocative a respondent may be. This is very necessary in order to obtain the co-operation of all kinds of people. You must not under any circumstances lose your temper because this can disrupt the entire exercise and make it difficult for you to proceed further. You should also be courteous and friendly.

6. Things you must do:

a) As far as possible, only adults should be interviewed. Information should be obtained from children only where it is specifically stated.

b) You must always carry your Identity Card.

c) You must study the questionnaire thoroughly in order to do your work efficiently.

d) You must discuss all your problems and uncertainties with the field supervisor (H.A.R.).

e) You must be patient, tolerant, and courteous at all times when dealing with respondents.

f) You must always conduct the interview in such a way that the respondents get the feeling of 'confidentiality'.

7. Things you must not do:

a) You must not permit any unauthorised person to accompany you on your visits.

b) You must never discuss politics or religion, nor should you allow yourself to be involved in any controversial arguments while engaged on the research exercise.

c) You must not argue with your respondents.

d) You must not disclose to anyone, except to Research Officials, any information you receive in the course of your duties as an interviewer.

e) You must not permit any unauthorised person, not even a member of your family to see the completed questionnaires.

f) You must not delegate your work as an interviewer to another person.

8. The success of the Research depends on how well you carry out your tasks as an interviewer. Among other things, you must be conscientious and honest. Do not hesitate to bring to the notice of the Head of Audience Research anything which strikes you as being doubtful. Note that your entries will be scrupulously checked after interviewing and you will be asked to go back to the field and correct all your mistakes.

Appendix 2

Some Examples of Questionnaires and Diaries in Recent or Current Use.

I NEW ZEALAND

Radio Diary produced in a booklet form. This is part of a diary used in Auckland to measure listening by day, time and network. Each day runs for a week. Only one day is included here as an example, but all the instructions are reproduced.

PERSONAL

DIARY

OF

RADIO

LISTENING

DIARY ISSUED TO: _____

For week commencing Saturday: _____

To be collected on: _____

Your interviewer is: _____

Interviewer phone number: _____

OTR SPECTRUM
Research

OTR SPECTRUM
Research

A PERSONAL NOTE

*Thank you for agreeing to participate in this important study. It is designed to accurately measure the audiences to different radio programmes and stations. **Your participation and diary completion is extremely important** as it helps make sure that radio stations provide the type of programmes and music that people like to hear.*

Please complete this diary of radio listening even if you do not listen to radio at all, or only infrequently - you are as important as those who listen for much of the day or night. Also don't let your normal radio listening patterns change just because you are completing this diary.

All information obtained from you, including your answers to the questions at the back of this diary, remain strictly confidential. Only aggregated statistical information is given in our reports.

This survey is an official audience measurement survey. The reports and information are widely used by the radio industry. Your participation and that of others in your household, ten years of age and over, will make the results a more genuine reflection of the radio listening patterns and preferences of all New Zealanders.

Once again thank you for your help with this survey.

Regards,
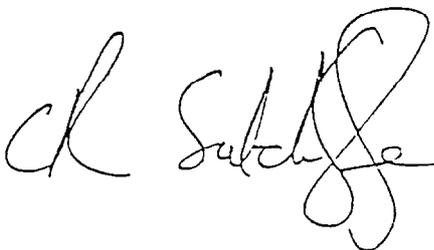
Chris Sutcliffe
MANAGING DIRECTOR.

HOW TO COMPLETE THIS DIARY

There are basically two sections to be completed by you. At some time during the week that you hold this diary, please turn to the inside back cover and complete the questions listed. When our interviewer initially called on you, or your household, he/she also obtained classification details such as age grouping,sex etc and these are partly in code form on the outside back cover. (We use this information to make sure we have the right number of people of different age and sex groups in the survey).

The main section to be completed by you is the diary itself.

THE DIARY

To achieve the greatest accuracy, please record your listening when you listen, or as soon as possible thereafter.

Record all your radio listening.
This includes:

AT HOME
•either inside your home or in the garden.

IN THE CAR
•either in your own car or in another car.

AT WORK
•at your normal place of employment.

ELSEWHERE
•anytime you are away from home while shopping, at the beach, on a picnic, at a friend's place etc.

Tick the appropriate station square for every 15 minutes of listening, when you have listened for eight minutes or more.

Check what you have recorded at the end of each day for accuracy, including the correct Radio Station or Stations. Please remind other members of the household to also check their diaries.

If you listen to any station(s) not actually listed by name in this diary, write the call sign or name of the station(s) in the column headed "OTHER".

May we take this opportunity of saying in advance, on behalf of all Radio Stations and others-
Thank you most sincerely for your co-operation.

OTR SPECTRUM RESEARCH

RADIO STATION IDENTIFICATION

Radio Stations are listed in this diary by their call sign or permanent name, and their frequency or frequencies,

Sometimes stations use other names or slogans to identify themselves on air.

Their current names and slogans are listed here to help make sure you record your listening in the correct radio station columns in the diary.

89FM	=	The All New 89FM Always A Better Music Mix
91FM	=	The New Rock Of The 90's, Auckland's 91FM
CONCERT	=	Concert Programme (FM)
BFM	=	Louder Than A Bomb
97FM	=	Classic Hits 97FM
RADIO i 98FM	=	Easy Listening Radio i/Easy Listening i 98FM
HAURAKI 99FM	=	Auckland's Original Rock Station
AOTEAROA	=	Real Kiwi Radio
PACIFIC	=	Radio Pacific, The Talk Of Auckland
NATIONAL RADIO	=	National Radio 1YA
AM NETWORK	=	The AM Network (Including Access Radio)
1ZB	=	Entertaining And Informing Auckland

OTR SPECTRUM
Research

3/91

SATURDAY

A2

						STATIONS LISTENED TO								
		89FM	91FM	CON-CERT	BFM	97FM	RADIO i 96FM 98.2 MHz	HAU-RAKI 94FM 99 MHz	AOTE-AROA	PAC-IFIC	NAT-IONAL RADIO	AM NET-WORK	1ZB	OTHER (write in)
STATION / TIME		89.4 MHz	91.0 MHz	92.5 MHz	95.0 MHz	97.4 MHz	1332 kHz	1476 kHz	603 kHz	702 kHz	756 kHz	882 kHz	1080 kHz	
		1	2	3	4	5	6	7	8	9	10	11	12	13
M O R N I N G	21 5 AM - 5.15					✓								
	22 5.15 - 5.30					✓								
	23 5.30 - 5.45					✓								
	24 5.45 - 6.00	✓												
	25 6 AM - 6.15	✓												
	26 6.15 - 6.30	✓												
	27 6.30 - 6.45												✓	
	28 6.45 - 7.00												✓	
	29 7 AM - 7.15												✓	
	30 7.15 - 7.30									✓				
	31 7.30 - 7.45									✓				
	32 7.45 - 8.00									✓				
	33 8 AM - 8.15													
	34 8.15 - 8.30					no listening								
	35 8.30 - 8.45													
	36 8.45 - 9.00													
	37 9 AM - 9.15					✓								
	38 9.15 - 9.30					✓								
	39 9.30 - 9.45					✓								
	40 9.45 - 10.00						✓							
	41 10 AM - 10.15						✓							
	42 10.15 - 10.30						✓							
	43 10.30 - 10.45							✓						
	44 10.45 - 11.00							✓						
	45 11 AM - 11.15							✓						
	46 11.15 - 11.30		✓											
	47 11.30 - 11.45		✓											
	48 11.45 - 12.00		✓											
A F T E R N O O N	49 12 PM - 12.15				✓									
	50 12.15 - 12.30				✓									
	51 12.30 - 12.45				✓									
	52 12.45 - 1.00		✓											
	53 1 PM - 1.15		✓											
	54 1.15 - 1.30		✓											
	55 1.30 - 1.45										✓			
	56 1.45 - 2.00										✓			
	57 2 PM - 2.15										✓			
	58 2.15 - 2.30											✓		
	59 2.30 - 2.45											✓		
	60 2.45 - 3.00											✓		Kiwi
	61 3 PM - 3.15													FM
	62 3.15 - 3.30													✓
	63 3.30 - 3.45													✓
	64 3.45 - 4.00													
	65 4 PM - 4.15													
	66 4.15 - 4.30					No listening								
	67 4.30 - 4.45													
	68 4.45 - 5.00													
Office Only		1	2	3	4	5	6	7	8	9	10	11	12	13

Have you recorded all your listening, both at home and away from home and in the car?

A2

STATIONS LISTENED TO

STATION / TIME	89FM 89.4 MHz 1	91FM 91.0 MHz 2	CON-CERT 92.6 MHz 3	BFM 95.0 MHz 4	97FM 97.4 MHz 5	RADIO I 98FM 98.2 MHz 1332 kHz 6	HAU-RAKI 99FM 99 MHz 1476 kHz 7	AOTE-AROA 603 kHz 8	PAC-IFIC 702 kHz 9	NAT-IONAL RADIO 756 kHz 10	AM NET-WORK 882 kHz 11	1ZB 1080 kHz 12	OTHER (write in) 13	
MORNING														
21 5 AM - 5.15														21
22 5.15 - 5.30														22
23 5.30 - 5.45														23
24 5.45 - 6.00														24
25 6 AM - 6.15														25
26 6.15 - 6.30														26
27 6.30 - 6.45														27
28 6.45 - 7.00														28
29 7 AM - 7.15														29
30 7.15 - 7.30														30
31 7.30 - 7.45														31
32 7.45 - 8.00														32
33 8 AM - 8.15														33
34 8.15 - 8.30														34
35 8.30 - 8.45														35
36 8.45 - 9.00														36
37 9 AM - 9.15														37
38 9.15 - 9.30														38
39 9.30 - 9.45														39
40 9.45 - 10.00														40
41 10 AM - 10.15														41
42 10.15 - 10.30														42
43 10.30 - 10.45														43
44 10.45 - 11.00														44
45 11 AM - 11.15														45
46 11.15 - 11.30														46
47 11.30 - 11.45														47
48 11.45 - 12.00														48
AFTERNOON														
49 12 PM - 12.15														49
50 12.15 - 12.30														50
51 12.30 - 12.45														51
52 12.45 - 1.00														52
53 1 PM - 1.15														53
54 1.15 - 1.30														54
55 1.30 - 1.45														55
56 1.45 - 2.00														56
57 2 PM - 2.15														57
58 2.15 - 2.30														58
59 2.30 - 2.45														59
60 2.45 - 3.00														60
61 3 PM - 3.15														61
62 3.15 - 3.30														62
63 3.30 - 3.45														63
64 3.45 - 4.00														64
65 4 PM - 4.15														65
66 4.15 - 4.30														66
67 4.30 - 4.45														67
68 4.45 - 5.00														68
Office Only	1	2	3	4	5	6	7	8	9	10	11	12	13	

Have you recorded all your listening, both at home and away from home and in the car?

A3

STATIONS LISTENED TO

STATION / TIME	89FM 89.4 MHz 1	91FM 91.0 MHz 2	CON-CERT 92.6 MHz 3	BFM 95.0 MHz 4	97FM 97.4 MHz 5	RADIO I 98FM 98.2 MHz 1332 kHz 6	HAU-RAKI 99FM 99 MHz 1476 kHz 7	AOTE-AROA 603 kHz 8	PAC-IFIC 702 kHz 9	NAT-IONAL RADIO 756 kHz 10	AM NET-WORK 882 kHz 11	1ZB 1080 kHz 12	OTHER (WRITE IN) 13	
EVENING														
69 5 PM - 5.15														69
70 5.15 - 5.30														70
71 5.30 - 5.45														71
72 5.45 - 6.00														72
73 6 PM - 6.15														73
74 6.15 - 6.30														74
75 6.30 - 6.45														75
76 6.45 - 7.00														76
77 7 PM - 7.15														77
78 7.15 - 7.30														78
79 7.30 - 7.45														79
80 7.45 - 8.00														80
81 8 PM - 8.15														81
82 8.15 - 8.30														82
83 8.30 - 8.45														83
84 8.45 - 9.00														84
85 9 PM - 9.15														85
86 9.15 - 9.30														86
87 9.30 - 9.45														87
88 9.45 - 10.00														88
89 10 PM - 10.15														89
90 10.15 - 10.30														90
91 10.30 - 10.45														91
92 10.45 - 11.00														92
93 11 PM - 11.15														93
94 11.15 - 11.30														94
95 11.30 - 11.45														95
96 11.45 - 12.00														96
NIGHT														
1 12 AM - 12.15														1
2 12.15 - 12.30														2
3 12.30 - 12.45														3
4 12.45 - 1.00														4
5 1 AM - 1.15														5
6 1.15 - 1.30														6
7 1.30 - 1.45														7
8 1.45 - 2.00														8
9 2 AM - 2.15														9
10 2.15 - 2.30														10
11 2.30 - 2.45														11
12 2.45 - 3.00														12
13 3 AM - 3.15														13
14 3.15 - 3.30														14
15 3.30 - 3.45														15
16 3.45 - 4.00														16
17 4 AM - 4.15														17
18 4.15 - 4.30														18
19 4.30 - 4.45														19
20 4.45 - 5.00														20
Office Only	1	2	3	4	5	6	7	8	9	10	11	12	13	

Have you recorded all your listening, both at home and away from home and in the car?

II SOUTH AFRICA

A Television Viewers Panel Questionnaire in booklet form, distributed to panel members throughout South Africa. This is one of the shortest and simplest I have seen.

HvdW/ep   05.11.90

Dear Panel Member,

In this questionnaire we would like to hear
your opinion on programmes that were
broadcast in the week 5 November to 11
November 1990.

It is important to keep in mind that you must
not make a special effort to watch television
because you are on the viewer's panel. We
are only interested in your ordinary viewing
habits. Therefore, we want you to watch
only those programmes that you would have
watched in the normal course of events. We
are just as interested to know which pro-
grammes you did not watch as those you
did.

Please return the whole questionnaire to us
after completion. Use the enclosed brown
envelope for this purpose, and post your
answers on MONDAY 12 NOVEMBER
1990, or as soon as you can after this date.

Your name and opinion will remain comple-
tely confidential. Only a report based on the
combined response from all panel members
is supplied to the appropriate programme
departments.

Thank you once again for your assistance
with this research.

Your sincerely

HELEN VAN DER WALT (MISS)
RESEARCHER : DIRECTORATE
BROADCASTING RESEARCH

TELEVISION 1

BESTE PROFESSOR
Broadcast at 22:00 on Monday 5 November
(Simulcast: The Paper Chase)

1. How much of this programme did you see?

   Watched the entire programme   [1]

   Watched part of the programme   [2]

   Watched another TV channel   [3]

   None - I could not watch - mark appropriate
   item: (Broadcast time not suitable)   [4a]

   (Other reason)   [4b]

   None - I chose not to watch television [5]

IF YOU DID NOT WATCH THIS PROGRAMME (ie
on 5 November) PLEASE CONTINUE WITH QUES-
TION 6.

2. Did you watch this programme with the Afri-
   kaans soundtrack or the English simulcast on
   radio?

   Afrikaans soundtrack   [1]

   English simulcast   [2]

BESTE PROFESSOR (Contd.)

3. If you chose answer number 1 in the previous
   question - what did you think of the voice
   used for Professor Kingsley?

VERY APPROPRIATE			NOT AT ALL APPROPRIATE	
1	2	3	4	5

4. What do you think of the time of broadcast of
   this programme?

   Too Late   [1]

   Just right   [2]

   Too early   [3]

5. Please rate this programme by choosing one
   of the following.

   Extremely interesting and/or enjoyable [1]

   Very interesting and/or enjoyable   [2]

   Fairly interesting and/or enjoyable   [3]

   Not very interesting and/or enjoyable   [4]

   Not at all interesting and/or enjoyable [5]

ORKNEY SNORK NIE
Broadcast at 19:00 on Tuesdays

6. *How regularly do you watch ORKNEY SNORK NIE?*

Every week `1`

Two to three times a month `2`

Once a month `3`

Less often than once a month `4`

Never `5`

IF YOU CHOSE ANSWER NUMBER 5 IN THE PRE-VIOUS QUESTION PLEASE CONTINUE WITH QUESTION 17.

7. *When you watch ORKNEY SNORK NIE how much of an episode do you usually watch?*

The whole episode (ie 30 minutes) `1`

20 - 29 minutes `2`

10 - 19 minutes `3`

Less than 10 minutes `4`

8. *Do you think this programme is ....?*

VERY FUNNY			NOT AT ALL FUNNY	
1	2	3	4	5

ORKNEY SNORK NIE (Contd.)

HOW CONVINCINGLY DO YOU THINK THE FOL-LOWING ARTISTS PORTRAY THEIR ROLES?

9. *Anette Engelbrecht as " Maggie ".*

VERY CON-VINCINGLY			NOT AT ALL CONVINCINGLY	
1	2	3	4	5

10. *Zack du Plessis as " Hendrik ".*

VERY CON-VINCINGLY			NOT AT ALL CONVINCINGLY	
1	2	3	4	5

11. *Jacques Loots as " Oupa ".*

VERY CON-VINCINGLY			NOT AT ALL CONVINCINGLY	
1	2	3	4	5

12. *Frank Opperman as " Ouboet ".*

VERY CON-VINCINGLY			NOT AT ALL CONVINCINGLY	
1	2	3	4	5

III BELGIUM (FRANCOPHONE)

RTBF distributed this questionnaire to panel members asking them to record both their viewing by time, channel and programme and then to record their opinion. This is an example of television audience measurement which has almost entirely been replaced by meters in developed countries.

The completed questionnaire - covering two days - is constructed in such a way as to fold easily into a post-paid envelope (see the first page).

Cité de la Radio et de la Télévision

(local 10M35)

Boulevard Reyers

1040 Bruxelles
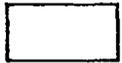
Cher(e) correspondant(e),

Nous vous remercions de votre collaboration qui permettra aux responsables des diverses stations de télévision de mieux adapter leurs programmes aux goûts du public.

Veuillez remplir ce questionnaire du

au

Votre collaboration sera efficace si :

— vous remplissez ce formulaire chaque jour (et non en une fois à la fin de la semaine) ;
— vous indiquez toutes les émissions que vous avez regardées (même celles que vous n'avez pas regardées en entier) ;
— vous le remplissez vous-même.

Ne regardez la télévision ni plus ni moins que d'habitude.

Voulez-vous inscrire :

— le titre de l'émission ;
— la station (l'émetteur) où vous l'avez regardée : RTBF 1, Télé 21, BRT 1, BRT 2, TF 1, A 2, FR 3, RTL, etc...;
— à quelle heure vous avez commencé à la regarder, à quelle heure vous avez cessé de la regarder ;
— votre avis sur l'émission, de la façon suivante :

Si vous jugez l'émission	EXCELLENTE	vous inscrivez	E
" " "	TRES BONNE	"	T
" " "	BONNE	"	B
" " "	QUELCONQUE	"	Q
" " "	MAUVAISE	"	M
" " "	TRES MAUVAISE, NULLE	"	N

(A la page suivante, il y a un exemple.)

* NOTEZ AUSSI l'heure à laquelle vous regardez une émission télévisée enregistrée précédemment en vidéo et donnez lui une cote.

Veuillez avoir l'obligeance de renvoyer ce bulletin lundi.
D'avance, nous vous remercions de votre collaboration.

EXEMPLE

Supposons que durant une journée, vous ayez regardé la T.V. de la manière suivante :
De 12h.15 à 12h.25, vous avez suivi "La Cuisine" à RTL que vous avez trouvée bonne (*).

De quelle à quelle heure ?	A quelles Stations ?	Titre des émissions que vous avez vues ce jour	Votre opinion sur cette émission
1) de 12.15 à 12.25	RTL	La cuisine	B

De 19h.30 a 20h.00, vous avez pris la R.T.B.F. 1 pour le Journal TV que vous avez trouvé très bon (*).

2) de 19.30 à 20.00	R.T.B.F. 1	J.T. 1	T

A 20h.00, vous êtes passé jusqu'à 20h.30 à FR3 où il y avait des variétés que vous avez trouvées excellentes (*).

3) de 20.00 à 20.30	FR3	La classe	E

De 12h.00 à 13h.30, vous avez suivi "Bon Jour" à RTL que vous avez trouvée bonne (*).
De 22h.00 à 22h.45, vous ne regardez rien (*).

4) de 20.30 à 22.00	T.F.1	Titre du film	M
5) de 22.00 à 22.45	Pas regardé		

Puis vous reprenez la RTBF 1 à 22h.45 pour regarder le dernier journal T.V. qui vous a paru quelconque (*).

6) de 22.45 à 23.00	R.T.B.F. 1	J.T. 2	Q
7) de 23.00 à	Fermeture du poste		

(*) Voici comment vous auriez dû ce jour-là remplir votre bulletin.

MERCI.

LUNDI

De quelle à quelle heure ?	A quelles Stations ?	Titre des émissions que vous avez vues ce LUNDI	Votre opinion sur cette émission
1) de .... à			
2) de .... à			
3) de .... à			
4) de .... à			
5) de .... à			
6) de .... à			
7) de .... à			
8) de .... à			
9) de .... à			
10) de .... à .			
11) de à ..			
12) de à			
de .... à			

MARDI

De quelle à quelle heure ?	A quelles Stations ?	Titre des émissions que vous avez vues ce MARDI	Votre opinion sur cette émission
1) de .... à ...			
2) de .... à			
3) de .... à			
4) de .... à			
5) de .... à			
6) de à			
7) de à			
8) de .... à			
9) de .... à			
10) de .... à ...			
11) de à ...			
12) de à			
de .... à ...			

IV FIJI

This questionnaire was used in an *ad hoc* survey commissioned by the BBC World Service in 1992, principally to measure listenership to international radio broadcasting. But it also measures audiences for domestic radio and TV as well as domestic media equipment.

It shows examples of most of the different kinds of questions outlined on pages 17 to 19.

List Questions: 3, 16, 17b, 19, 20a, 20b, 20d, 23a, 23b, 27.

Category Questions: 1a, 1b, 4, 13, 14, 15b, 20e.

Questions 5 and 8 are special kinds of category questions in which block and time are recorded.

Scale Questions: 18, 20g.

Quantity Questions: 22.

Open-Ended Questions: 26b.

Grid Questions: 1c, 1d, 2a, 2b, 5b, 6, 9, 10, 11, 12a to 12c.

Note the other common category of question. 5a, 7b, 15a, 17a, 20c, 20f, 24 and 25 require a simple yes/no answer.

Note also the "routing" instructions. For example, if in reply to Question 4 the respondent never watches TV, the interviewer goes straight to Question 7a. If, in answer to that question the respondent never listens to radio, the interviewer goes to the demographic questions at the end.

Routing instructions are very important. They must be carefully worked out and be clear to the interviewer when working under pressure in the field.

Ask All Respondents

Q. 3 Which of the following equipment in working   *Radio receiver* *1*

order do you have in your home?   *Television receiver* *2*
Video recorder *3*
Telephone *4*
Satellite dish *5*

Q. 4 How often if at all, do   *Most days [6 or 7 days a week]* .... *1* } *Ask*
you watch Television?   *At least once a week* .... *2* } *Q.*
Would you say it is most   *Less often than once a week* .... *3* } *5*
days, at least once a week,   *Absolutely never [Go to Q. 7a]* .... *4*   *Go to Q. 7a*
or less often than once a week?

Q. 5a Did you watch television   *Yes* .... *1*   *[Ask Q. 5b]*
yesterday?   *No* .... *2*   *[Go to Q. 6]*

Q. 5b What time or times of the day did you watch television yesterday? Please try to give specific times for all
the times that you started and stopped watching. **Code Every Listening Time In The Grid Below.**

TV Listening Times Grid

Morning			*Afternoon*			*Evening/Night*		
5.00	*-5.29 am*	*1*	*12.00*	*-12.29 pm*	*15*	*7.00*	*- 7.29 pm*	*29*
5.30	*-5.59 am*	*2*	*12.30*	*-12.59 pm*	*16*	*7.30*	*- 7.59 pm*	*30*
6.00	*-6.29 am*	*3*	*1.00*	*-1.29 pm*	*17*	*8.00*	*- 8.29 pm*	*31*
6.30	*-6.59 am*	*4*	*1.30*	*-1.59 pm*	*18*	*8.30*	*- 8.59 pm*	*32*
7.00	*- 7.29 am*	*5*	*2.00*	*-2.29 pm*	*19*	*9.00*	*- 9.29 pm*	*33*
7.30	*- 7.59 am*	*6*	*2.30*	*-2.59 pm*	*20*	*9.30*	*- 9.59 pm*	*34*
8.00	*-8.29 am*	*7*	*3.00*	*-3.29 pm*	*21*	*10.00*	*-10.29 pm*	*35*
8.30	*-8.59 am*	*8*	*3.30*	*-3.59 pm*	*22*	*10.30*	*-10.59 pm*	*36*
9.00	*-9.29 am*	*9*	*4.00*	*-4.29 pm*	*23*	*11.00*	*-11.29 pm*	*37*
9.30	*-9.59 am*	*10*	*4.30*	*-4.59 pm*	*24*	*11.30*	*-11.59 pm*	*38*
10.00	*-10.29 am*	*11*	*5.00*	*-5.29 pm*	*25*	*12.00*	*-12.29 am*	*39*
10.30	*-10.59 am*	*12*	*5.30*	*-5.59 pm*	*26*	*12.30*	*-12.59 am*	*40*
11.00	*-11.29 am*	*13*	*6.00*	*-6.29 pm*	*27*	*1.00*	*- 4.59 am*	*41*
11.30	*-11.59 am*	*14*	*6.30*	*-6.59 pm*	*28*	*9.00*	*- 9.29 pm*	*33*

Q. 6 I am going to read the names of some television stations, including some which come from outside Fiji.
For each one, can you tell me how often, if ever, you watch it: most days, at least once a week, or less
often than once a week?

Read Out Each Station Name

	Most days	*Once a week*	*Less often*	*Never*
Fiji 1	*1*	*2*	*3*	*4*
TV NZ	*1*	*2*	*3*	*4*
ABC	*1*	*2*	*3*	*4*
Cable News Network/CNN	*1*	*2*	*3*	*4*
ITN	*1*	*2*	*3*	*4*
NBC	*1*	*2*	*3*	*4*
World Service Tel/BBC	*1*	*2*	*3*	*4*

Q. 7a How often, if ever, do you   *Most days [6 or 7 days a week]* .... *1* ⎫
        listen to the radio? Would   *At least once a week* .... *2* ⎬ **Go to Q. 7b**
        you say it is most days, at   *Less often than once a week* .... *3* ⎭
        least once a week, or less   *Absolutely never* .... *4* **Go to Demographics**
        often than once a week?   **at end**

Q. 7b Did you listen to the radio   *Yes* .... *1* **Ask Q. 8**
        yesterday?   *No* .... *2* **Go to Q. 9**

Q. 8 What time or times of the day did you listen to the radio yesterday? Please try to give specific times for
      all the times that you started and stopped listening. **Code every Listening Time in the Grid below.**

Morning			_Afternoon_			_Evening/Night_		
5.00	-5.29 am	1	12.00	-12.29 pm	15	7.00	- 7.29 pm	29
5.30	-5.59 am	2	12.30	-12.59 pm	16	7.30	- 7.59 pm	30
6.00	-6.29 am	3	1.00	-1.29 pm	17	8.00	- 8.29 pm	31
6.30	-6.59 am	4	1.30	-1.59 pm	18	8.30	- 8.59 pm	32
7.00	-7.29 am	5	2.00	-2.29 pm	19	9.00	- 9.29 pm	33
7.30	-7.59 am	6	2.30	-2.59 pm	20	9.30	- 9.59 pm	34
8.00	-8.29 am	7	3.00	-3.29 pm	21	10.00	-10.29 pm	35
8.30	-8.59 am	8	3.30	-3.59 pm	22	10.30	-10.59 pm	36
9.00	-9.29 am	9	4.00	-4.29 pm	23	11.00	-11.29 pm	37
9.30	-9.59 am	10	4.30	-4.59 pm	24	11.30	-11.59 pm	38
10.00	-10.29 am	11	5.00	-5.29 pm	25	12.00	-12.29 am	39
10.30	-10.59 am	12	5.30	-5.59 pm	26	12.30	-12.59 am	40
11.00	-11.29 am	13	6.00	-6.29 pm	27	1.00	- 4.59 am	41
11.30	-11.59 am	14	6.30	-6.59 pm	28			

Ask All Respondents

Q. 9 As you may know, it is possible to listen in Fiji to foreign radio stations which broadcast **on shortwave**
      from countries outside Fiji. Do you know any radio stations which broadcast programmes to Fiji from
      other countries? **Code In Grid Below Under Unaided Awareness.**

      In Q. 10, you must ask about each station from the list below which has not already been named by the
      respondent in Q. 9.

Q. 10 Do you know of .... **Read Out Each Station In Rotated Order Starting With**
        ....broadcasting to Fiji? **Code in Grid as Aided Awareness.**

Stations	_Q. 9 Unaided Awareness_	_Q.10 Aided Awareness_	_Not aware_
Radio Australia	1	1	1
BBC London	2	2	2
Voice of America	3	3	3
Radio Netherlands	4	4	4
Deutsche Welle/Voice of Germany	5	5	5
Radio Japan NHK	6	6	6
Radio New Zealand	7	7	7
Radio Moscow	8	8	8
Radio Beijing	9	9	9
All India Radio	10	10	10
Sri Lanka B.C.	11	11	11
Radio France International	12	12	12
FEBC Radio International	13	13	13
Adventist World Radio - Voice of Hope	14	14	14
Radio Veritas Asia	15	15	15
Trans World Radio	16	16	16

If Respondent is not aware of any Foreign Stations, Go to Q. 19

Ask Q. 11 for each foreign station which respondent is aware of, from either Q. 9 or Q. 10

Q. 11 Now I am going to read the names of the foreign stations that you know of again. For each of them, car you tell me if you have listened to that station at least once in the past 12 months, **Code in Grid below i first column.**

Q. 12a & 12b: For each station heard at least once in the past 12 months, ask about listening in the languages included in the grid.

Q. 12a In what language do you listen? **Probe for all languages listed: What about ....? Code in Grid, the for each station and language heard, ask Q 12b and 12 c.**

Q. 12b About how often do you listen to ....(Station) in ....(Language)? Would you say it is most days, at least once a week, or less often than once a week?

Q. 12c And have you listened to it in the last seven days?

Q. 11 Station Heard Yes No 1 2			Q.12a Language		Q.12B Regularity			Q.12c 7	
			Yes	No	Most days	weekly	Less often	Last 7 days Yes	N
1 2	Radio Australia	English	1	2	1	2	3	1	2
		Hindi	1	2	1	2	3	1	2
1 2	BBC World Service	English	1	2	1	2	3	1	2
		Hindi	1	2	1	2	3	1	2
1 2	Voice of America	English	1	2	1	2	3	1	2
		Hindi	1	2	1	2	3	1	2
1 2	Radio Netherlands	English	1	2	1	2	3	1	2
1 2	Deutsche Welle	English	1	2	1	2	3	1	2
		Hindi	1	2	1	2	3	1	2
1 2	Radio Japan NHK	English	1	2	1	2	3	1	2
		Hindi	1	2	1	2	3	1	2
		Japanese	1	2	1	2	3	1	2
1 2	Radio New Zealand	English	1	2	1	2	3	1	2
1 2	Radio Moscow	English	1	2	1	2	3	1	2
		Hindi	1	2	1	2	3	1	2
1 2	Radio Beijing	English	1	2	1	2	3	1	2
		Hindi	1	2	1	2	3	1	2
1 2	All India Radio	English	1	2	1	2	3	1	2
		Hindi	1	2	1	2	3	1	2
1 2	Sri Lanka B.C.	English	1	2	1	2	3	1	2
		Hindi	1	2	1	2	3	1	2
1 2	FEBC Radio International	English	1	2	1	2	3	1	2
1 2	AWR, Voice of Hope	English	1	2	1	2	3	1	2
		Hindi	1	2	1	2	3	1	2
1 2	Radio Veritas Asia	English	1	2	1	2	3	1	2
		Hindi	1	2	1	2	3	1	2

Q. 13 You have told me that
you listen to the BBC?
in English. What are
the main reasons why you
listen to the BBC in
English? Would you say
it is to hear ....? Read Out

Pop music	.... *1*
News Bulletins	.... *2*
Analysis of news stories	.... *3*
To improve your English	.... *4*
Or for some other reason	.... *5* **Write in**

Q. 14 When did you first,
listen to the BBC?

In the past year or so	.... *1*	*(1991/92)*
Within the past five years	.... *2*	*(Since 1987)*
Before then	.... *3*	

Q. 15ᵃ When you listen to the
BBC do you ever listen
English language lessons
on the BBC?

Yes	.... *1*	*Ask Q. 15b*
No	.... *2* }	*Go to Q. 16*
DK/Can't say	.... *3* }	

If Yes: Q. 15 b How often would you say
that you listen to these English language
lessons on the BBC? Would you say it is
most days, at least once a week, or less
often than once a week?

Most days	.... *1*
Once a week	.... *2*
Less often	.... *3*

Q. 16 When you listen to the BBC which waveband do
You use to receive the BBC? **Do not read list,
but prompt if necessary: I mean do you listen
on AM, FM, long wave (LW) or short wave (SW)**

FM/VHF	.... *1* ⎫	
MW/AM	.... *2* ⎬	*Go to Q. 18*
LW	.... *3* ⎭	
SW	.... *4*	*Go to Q. 17*

Q. 17a You say you listen to the BBC on Short Wave.
In the last couple of months, have you noticed
any difference in the reception quality of the
BBC between 11.00 pm and 11.30 pm at night?

Yes	.... *1*	*Ask Q. 17b*
No	.... *2* }	*Go to Q. 18*
DK/Can't say	.... *3* }	

All who answered 'yes' to Q.17a

Q. 17b Would you say that in general reception quality
has got better, stayed the same, or got worse?

Better	.... *1*
Same	.... *2*
Worse	.... *3*
DK/Can't say	.... *4*

Q. 18 I'd like you to think about the quality of the programmes you hear on the radio. Now, thinking
about all the BBC programmes you hear, how would you describe the usual quality of these
programmes? If you have a scale of 1 to 5 and a score of 5 means very good, and a score of 1
means very poor, what score would you give to the BBC's programmes on average? **[Interviewer
prompt only if necessary: by quality, I mean whether it is a well-made, interesting, professional
sort of programme]**

Very Poor   Very Good
1   2   3   4   5   *Don't know / can't say*   6

Ask All Radio Listeners:

Q.19 Which Fijian radio station or stations do you listen to at least once a week? **Mark all that apply: Do not prompt.**

Radio Fiji 1 (in Fijian) .... 1 ⎫
Radio Fiji 2 (in Hindustani) .... 2 ⎬ *Ask Q. 20a*
Radio Fiji 3 (in English) .... 3 ⎭
Magic 104 (in English) 4
FM 96 (in English/Fijian) 5
Radio Rajdhani FM 98 (in Hindi) 6
Navtarang RM 97.4/98.8/101.6 (in Hindi) 7
Other (Write in) 8

Ask All Radio Fiji Listeners [identified above] Others to Q. 21

Q. 20a As you may know, Radio Fiji broadcasts some programmes produced by foreign radio stations. Do you know where any of these programmes originate from? **Mark All That Apply. Do Not Read Lis**

Radio Australia 1   *Ask Q. 20b*
BBC/BBC World Service/BBC London/London .... 2 ⎫
Radio New Zealand .... 3 ⎬ *Go to Q. 20c*
Other .... 4 ⎭
Don't Know/Can't say 5

All Who Say 'Radio Australia' only: Others to Q. 20c

Q.20b Can you name any of the programmes on Radio Fiji that come from Radio Australia? **Do Not Read List**

News 1
Sports World 2
Rugby League 3
Horse Racing 4
Other 5   *Write In*

Ask All Radio Fiji Listeners

Q.20c Have you in the last twelve months listened to any programmes on Radio Fiji that come from the BBC in London?

Yes 1   *Ask Q. 20d*
No 2   *Go to Q. 21*

Ask All Who Listen to BBC World Service on Radio Fiji

Q. 20d Which BBC programmes do you listen to on Radio Fiji?
Can you name them for me? **[Probe if necessary. What about .....? For each programme not mentioned. Record unprompted answers in 1st column, prompted answers in 2nd column**

	Unprompted	Prompted	Does not listen
Can't name any/Don't know	1	2	3
BBC News at 8.00 am local	1	2	3
BBC News at 10.00 pm local	1	2	3
Your World	1	2	3
International Money Programme	1	2	3
Top of the Pops	1	2	3
In Concert [Pop Programme]	1	2	3
Jarokha (in Hindi or R.Fiji 2)	1	2	3
Other (Write down details)	1	-	-

Q.20e And about how often do you listen   *Most days* *1*
  to any BBC programmes on Radio Fiji? *At least once a week* *2*
  Would you say it is most days, at *Less often than once a week* *3*
  least once a week, or less often
  than once a week

Q.20f And have you listened to any of   *Yes* *1*
  these BBC programmes on Radio   *No* *2*
  Fiji in the last seven days?

Q. 20g I'd like you to think about the quality of the programmes you hear on the radio. Now, thinking about a
  the BBC programmes you hear on Radio Fiji, how would you describe the usual quality of these
  programmes? If you have a scale of 1 to 5 and a score of 5 means very good, and a score of 1 means ve
  poor, what score would you give to the BBC's programmes on average? [**Interviewer prompt only if
  necessary:** By quality, I mean whether it is a well-made, interesting, professional sort of programme]

    1 2 3 4 5   *Don't know / can't say* 6

All Radio Listeners

Q.21 I'd like you to think   *Radio Fiji 1 (Fijian)* *1*
  about how much you trust *Radio Fiji 2 (Hindustani)* *2*
  the news that you hear   *Radio Fiji 3 (English)* *3*
  on the radio. Thinking   *Magic 104 (English)* *4*
  about all the radio   *FM 96 English/Fijian)* *5*
  stations that you listen *Radio Rajdhani FM 98 (Hindi)* *6*
  to, including those *Navtarang RM 97.4/98.8/101.6 (Hindi)* *7*
  from inside and outside Fiji, *Radio Australia* *8*
  which station's news would *BBC World Service* *9*
  you say that you really trust *Radio New Zealand* *10*
  most of all?   *Other* ......:... *11* **Write in**

Ask All With a Radio Set in Household (From Q.3)

Q. 22 How many radio sets in working order do you *Write in* [ ]
  have at home (including car radios)?

Q. 23a I would like to find out what wavebands *Cannot check radio*......... *Go to Q.24*
  you have on your radio. May I please *AM or MW* *1*
  look at your best radio set to see *FM or VHF* .... *2* } *Go to Q. 25*
  what wavebands it can receive?   *LW* *3*
  Do Not Check Car Radios.   *SW* .... *4* *Ask Q. 23b*

Q. 23b Which short wave bands do you receive? Metres Megahertz
               11 .... 25 1
               13 .... 21 2
               16 .... 17 3
               19 .... 15 4
               25 .... 11 5
               31 .... 9 6
               41 .... 7 7
               49 .... 6 8
               60 .... 5 9
               75 .... 4 ... 10
               90 .... 3 ... 11
             None identified... 12
If inspection of set is not permitted or it is impossible to identify bands on set, ask questions 24 and 25

If inspection of set is not permitted or it is impossible to identify bands on set, ask questions 24 and 2.

Q. 24 I would like to know whether you have at least one set
that can pick up short wave broadcasting. As you may
know, most of what you hear nowadays from stations
in this part of the world is on FM or AM, but much
broadcasting from abroad, especially from stations a
long way away, can only be heard on shortwave. Can
you tell me whether you have a radio set capable of
receiving short wave broadcasts?

Yes	.... *1*
No	.... *2*

Q. 25 Do you have a radio set with digital reading?

Yes	.... *1*
No	.... *2*

Demographics

Q. 26a Do you work full time or part time?

Full time	.... *1* } *Ask Q. 26b*
Part time	.... *2*
Student	.... *3* } *Go to Q. 27*
Housewife	.... *4*
Other	.... *5*

Q. 26b If full time/part time work:
What is your job? **Write in.**

Q. 27 Record Type of Housing

TYPE OF LIVING QUARTERS

Does this household live in
  an independent dwelling   1
  a building housing two or more households. ..   2
  a hotel or lodging house   3
  other, specify   4

CONSTRUCTION OF OUTER WALLS

Is the building constructed with
  walls of concrete, brick or cement   1
  wooden walls   2
  permanent walls of tin or corrugated iron   3
  walls of traditional bure materials   4
  walls of makeshift or improvised materials   5
  walls of other materials, specify   6

Respondent Name   _____

Address   _____

Time   _____   Date   _____

Interviewer Name   _____

Interviewer Signature   _____

Harrison Marketing Australia

Suva	.... *1*
Lautoka	.... *2*
Small Town	.... *3*
Village	.... *4*
Settlement	.... *5*

Fiji Radio Survey

Hello, my name's .... We're doing a survey about radio and television. It is part of a study being conducted in many parts of the world. Of course, all the replies will be treated with the strictest of confidence To begin with, I would like to ask some questions about yourself.

Record Respondent Details

Fijian	.... *1*		*Male*	.... *1*
Indian	.... *2*		*Female*	.... *2*
Other	.... *3*			

Q.1a Firstly, about how old are you?

15 - 29	.... *1*
30 - 44	.... *2*
45 - 59	.... *3*
60 +	.........*4*

Q.1b What level of schooling did you
go to (or are you at now)?

No School	.... *1*
Primary/Elementary	.... *2*
Secondary/Junior High	.... *3*
College	.... *4*
University	.... *5*

Q. 1c What is the main language you normally speak at home? (Circle in column 1 below)

Q. 1d What other language or languages spoken in Fiji do you understand? (Circle in column 2 below)

	Q. 1c *Main Language*	*Q. 1d* *Other languages understood*
Fijian	*1*	*1*
Hindustani	*2*	*2*
English	*3*	*3*
Other	*4*	*4*

Ask All Respondents Who Understand English (From Q. 1d): Others Go To Q.3

Q. 2a How well do you understand spoken English? Would you say you understand English very well, a reasonable amount, or a little?

Q. 2b And how well do you speak English? Would you say you   speak   English very well, a reasonable amount, or a little?

	Q. 2a *Understands*	*Q. 2b* *Speaks*
Very well	*1*	*1*
Reasonably well	*2*	*2*
A little	*3*	*3*

V POSTAL QUESTIONNAIRE

This example was used in 1991 by the BBC World Service to send to listeners in all parts of the world who had been identified an a previous listening diary as listeners to science programmes.

Note the wording of the letter, the attractive layout and the clear instructions to the respondent - especially important in any self-completion questionnaire.

Note also the use of open-ended questions, especially the last one, included here so that the respondent is free to say whatever he or she may be burning to say but which may not have been covered!

BBC WORLD SERVICE
SCIENCE QUESTIONNAIRE

August 1991,

Dear Listener,

Thank you for your interest in BBC World Service science programmes. We were very interested in hearing from you.

We are currently carrying out research to find out what listeners think about science programmes on the BBC World Service. As you have shown an interest in our programmes recently, we thought that you might like to be included in this project.

We would be very grateful if you could fill in the following questionnaire and return it to us as soon as possible. Of course anything you tell us will be treated in the strictest confidence. Simply answer all the questions and place the completed quetsionnaire in the envelope provided: you do not even have to pay for the postage.

As well as helping us in our research, by sending us the completed questionnaire you will have a chance to win a special BBC prize. All the forms we receive will be entered in a prize draw. The first ten entries selected at random will each win a copy of John Hamilton's book, *They Made Our World*, based on the BBC World Service series.

Thank you again for your help in our efforts in improving the quality of Science programmes on the BBC. We hope you will continue to listen to and enjoy BBC World Service programmes, and good luck in the prize draw!

Yours,

John Newell,
Editor, BBC Science, Industry and Exports Unit.

THE MEDIA

Please tick the appropriate box (☐) in the following questions:

1. How often do you usually watch television?

    Every day or almost every day ☐ 1
    At least once a week   ☐ 2
    At least once a month   ☐ 3
    Less than once a month   ☐ 4
    Never   ☐ 5

    11

2. How often do you usually listen to the radio?

    Every day or almost every day ☐ 1
    At least once a week   ☐ 2
    At least once a month   ☐ 3
    Less than once a month   ☐ 4
    Never   ☐ 5

    12

3. How often do you ususally listen to BBC radio in a language other than English?

    Every day or almost every day ☐ 1
    At least once a week   ☐ 2
    At least once a month   ☐ 3
    Less than once a month   ☐ 4
    Never   ☐ 5

    13

4. How often do you usually listen to the BBC World Service in English?

    Every day or almost every day ☐ 1
    At least once a week   ☐ 2
    At least once a month   ☐ 3
    Less than once a month   ☐ 4
    Never   ☐ 5

    14

5. How often you listen to **each** of the following types of programmes broadcast by the BBC World Service in English?

	Every day or almost every day	At least Once a week	At least Once a month	Less Often	Never	
Drama & Cultural	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	15
English Lessons	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	16
Features, Talks & Documentaries	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	17
Music (classical, light and pop)	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	18
News & Current Affairs	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	19
Religion	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	20
Science, Technology & Medicine	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	21
Sports	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	22
Trade, Industry & Finance	☐ 1	☐ 2	☐ 3	☐ 4	☐ 5	23

BBC SCIENCE PROGRAMMES

6. How often you generally listen to **each** of the following programmes broadcast by the BBC World Service?

	Once a week	Once a month	Less Often	Never	
Development	☐ 1	☐ 2	☐ 3	☐ 4	24
Discovery	☐ 1	☐ 2	☐ 3	☐ 4	25
Farming World	☐ 1	☐ 2	☐ 3	☐ 4	26
Global Concerns	☐ 1	☐ 2	☐ 3	☐ 4	27
Health Matters	☐ 1	☐ 2	☐ 3	☐ 4	28
New Ideas	☐ 1	☐ 2	☐ 3	☐ 4	29
Pop Science	☐ 1	☐ 2	☐ 3	☐ 4	30
Science in Action	☐ 1	☐ 2	☐ 3	☐ 4	31
Seeing Stars	☐ 1	☐ 2	☐ 3	☐ 4	32

7. The BBC also produces occasional programmes and series on scientific issues. Please tell us if you heard none, some or most of the episodes of **each** of the following programmes.

	Heard most episodes	Heard some episodes	Did not hear any episodes	
A Positive Life	☐ 1	☐ 2	☐ 3	33
Growing Points in Medicine	☐ 1	☐ 2	☐ 3	34
Second Genesis: Drugs Hope	☐ 1	☐ 2	☐ 3	35
The Modern Sherlock Holmes	☐ 1	☐ 2	☐ 3	36
Journey to the Centre of the Earth	☐ 1	☐ 2	☐ 3	37
Industrial Revolutions	☐ 1	☐ 2	☐ 3	38
Gold Mine in the Dustbin	☐ 1	☐ 2	☐ 3	39

8. Science programmes on the BBC deal with various topics. Would you prefer more, less or about the same amount of time to be devoted to **each** of the following scientific subjects on the BBC World Service?

	More time	Less time	About the same time	Don't Know	
Agriculture	☐ 1	☐ 2	☐ 3	☐ 4	40
Astronomy & Cosmology	☐ 1	☐ 2	☐ 3	☐ 4	41
Biology Research	☐ 1	☐ 2	☐ 3	☐ 4	42
Chemistry Research	☐ 1	☐ 2	☐ 3	☐ 4	43
Computing	☐ 1	☐ 2	☐ 3	☐ 4	44
Development	☐ 1	☐ 2	☐ 3	☐ 4	45
Ecology & Environment	☐ 1	☐ 2	☐ 3	☐ 4	46
Medical Advice	☐ 1	☐ 2	☐ 3	☐ 4	47
Medical Research	☐ 1	☐ 2	☐ 3	☐ 4	48
Natural History	☐ 1	☐ 2	☐ 3	☐ 4	49
Physics Research	☐ 1	☐ 2	☐ 3	☐ 4	50
Technology & Engineering	☐ 1	☐ 2	☐ 3	☐ 4	51

9. Are there any topics not currently covered by BBC science programmes that you would like to hear on the World Service?

Yes   □₁

No (Please go to question 10)   □₂

52

IF YES: Please tell us which other scientific topics you would like the BBC to offer.

_____

_____

_____

_____

_____

53-
55

10. Do you find the following aspects of science programmes too difficult, about right, or too simple for you?

	Too Difficult	About Right	Too Simple	
Level of English	□₁	□₂	□₃	56
Presenters' explanations	□₁	□₂	□₃	57
Subjects covered	□₁	□₂	□₃	58

11. The following is a list of statements people have made about science programmes on the BBC World Service. Please tell us whether you tend to agree or disagree with each of them.

	Agree	Disagree	Don't Know	
- The presenters on BBC science programmes use complicated words I sometimes do not understand.	□₁	□₂	□₃	59
- The subjects on BBC science programme are too technical for non-specialists to understand.	□₁	□₂	□₃	60
- Presenters make complicated subjects seem easy.	□₁	□₂	□₃	61
- BBC science programmes should be more lively: it is sometimes a little boring just hearing people talking.	□₁	□₂	□₃	62
- BBC science programmes are too short: often there is not enough time to go into the details I would like.	□₁	□₂	□₃	63
- BBC science programmes are too elementary. I would like science programmes that assume a higher level of education.	□₁	□₂	□₃	64

[4]

PUBLICITY AND FACTSHEETS

12. Some science programmes provide factsheets to listeners. Have you ever received a factsheet from the BBC?

Yes $\square_1$ 65
No (Please go to question 13) $\square_2$

> **IF YES:** Which programmes' factsheets have you received?
>
> Health Matters $\square_1$ 66
> New Ideas $\square_2$
> Seeing Stars $\square_3$ 67-
> Other (Please specify)   _____   68
>
> _____
>
> Do you think each of the following aspects of the factsheets are good, fair or poor?
>
> | | Good | Fair | Poor | Don't Know | |
> |---|---|---|---|---|---|
> | Clarity of presentation | $\square_1$ | $\square_2$ | $\square_3$ | $\square_4$ | 69 |
> | Relevance of information | $\square_1$ | $\square_2$ | $\square_3$ | $\square_4$ | 70 |
> | Time taken for the factsheet to arrive | $\square_1$ | $\square_2$ | $\square_3$ | $\square_4$ | 71 |
> | (Please state how many weeks) | | | _____ | | 72-73 |

13. Would you like any other BBC science programmes to offer factsheets to listeners?

Yes $\square_1$ 74
No (Please go to question 14) $\square_2$

> **IF YES:** Which programmes? (Please write in)
>
> _____
>
> _____   75-76
>
> _____

14. Do you subscribe to London Calling?

Yes $\square_1$ 77
No (please go to question 15) $\square_2$

> **IF YES:** Do you think London Calling gives enough details about science programmes?
>
> Yes (Please go to question 15) $\square_1$ 78
> No $\square_2$
>
> > **IF NO:** What does it leave out?
> >
> > _____   79-
> >
> > _____   81
> >
> > _____

[5]

SCIENTIFIC INFORMATION

15. Are you working or studying in any of the following areas?

Yes

Agriculture	☐ 1
Astronomy & Cosmology	☐ 2
Biology Research	☐ 3
Chemistry Research	☐ 4
Computing	☐ 5
Development	☐ 6
Ecology & Environment	☐ 7
Medical Advice	☐ 8
Medical Research	☐ 9
Natural History	☐ A
Physics Research	☐ B
Technology & Industry	☐ C

IF YOU DO NOT WORK IN ANY OF THESE FIELDS, GO TO QUESTION 16:

IF YOU ANSWERED YES TO ANY OF THESE QUESTIONS:

Do you listen to BBC science programmes to receive information about your work or study?

Yes ☐ 1

No (Please go to question 16) ☐ 2

IF YES: Which programmes do you find most helpful?
(Please tick all that apply)

Development	☐ 1
Discovery	☐ 2
Farming World	☐ 3
Global Concerns	☐ 4
Health Matters	☐ 5
New Ideas	☐ 6
Science in Action	☐ 7
Seeing Stars	☐ 8

16. Which of these sources do you use to get information about scientific issues?
(Please tick all that apply)

Radio	☐ 1
Television	☐ 2
Newspapers	☐ 3
Specialist journals	☐ 4
Popular Scientific Magazines	☐ 5
Other (please specify)	_____

82-
83

84

85-
86

87-
88

[6]

IF YOU READ POPULAR MAGAZINES: ——————┐

Which of the following magazines do you read regularly or once in a while?

	Regularly	Once in a while	
BBC Nature Magazine	☐ 1	☐ 2	89
BBC World Magazine	☐ 1	☐ 2	90
National Geographic	☐ 1	☐ 2	91
Nature	☐ 1	☐ 2	92
New Scientist	☐ 1	☐ 2	93
New York Times Technology Supplement	☐ 1	☐ 2	94
Science	☐ 1	☐ 2	95
Science News	☐ 1	☐ 2	96
Scientific American	☐ 1	☐ 2	97
Other (please specify) _____			98-99

_____

17. The following is a list of reasons people have given for listening to BBC science programmes. Please tell us which statement **best** applies to you.

Applies

- I listen to science programmes on the BBC to hear about all the latest research developments in my work.   ☐ 1   100

- I know nothing about science but I like to listen to programmes which explain things in a way I can understand.   ☐ 2

- Listening to BBC programmes is a good way of learning about science.   ☐ 3

- I am not particularly interested in science programmes. I only listen to them when there is nothing else to do.   ☐ 4

- I listen to BBC science programmes to get advice about health and other scientific issues.   ☐ 5

18. Are there any comments or suggestions you would like to make about science programmes on the BBC World Service?

_____   101-
_____   103
_____
_____
_____
_____
_____
_____
_____
_____
_____

PLEASE FILL IN THE FOLLOWING DETAILS ABOUT YOURSELF:

19. Name: _____

20. Address: _____

_____

_____

104

21. Sex:

Male ☐₁   Female ☐₂

105

22. Age: (Please write in years) _____

106-
107

23. Nationality: _____

108

24. What is the highest level of education you have completed?

109

Primary   ☐₁
Secondary   ☐₂
Further education
    but not degree level   ☐₃
University   ☐₄

25. How well do you understand spoken English?

A little   ☐₁
Fairly well   ☐₂
Very well   ☐₃

110

26. Are you learning English at the moment?

Yes   ☐₁
No (Please go to question 27)   ☐₂

111

IF YES: How are you learning English?

Secondary School	☐₁	University	☐₂
Evening classes	☐₃	Private Tutor	☐₄
Radio	☐₅	Television	☐₆
Books	☐₇	Audio cassettes/Records	☐₈
Family/Friends	☐₉	Time spent abroad	☐ₐ

112-
113

27. Occupation: (Please write in) _____

114-
116

Thank you for taking part in our survey. Your help in completing this questionnaire will assist our science unit to produce the sort of programmes you would like to hear. We hope that you will continue to listen to and enjoy programmes on the BBC World Service in English. Remember, if you send us a completed questionnaire, you could win a special prize!

[8]

Not a questionnaire, but a warning about using research results.

The Bureau of Broadcast Measurement (BBM) in Canada produces this amusing poster to send to customers for its audience measurement service throughout the country.

These results should be adhered to strictly in any country's audience measurement system. They must indeed be treated as if "written in stone" like the Ten Commandments brought down the mountain by Moses!

Thou shalt not mess with the survey.

HERE ARE THE NEW BBM RADIO RULES
TO FOLLOW TO ENSURE A TRUE, AND HONEST SURVEY.
CONSIDER THEM WRITTEN IN STONE.*

Rule #1:

RATING DISTORTION.

Diaries and their recipients are strictly off-limits to staff members. Any solicitation by a station publicly or privately is a violation of BBM's rules and regulations.

Rule #2:

RATING BIAS.

This includes initiating contact with diary-keepers, on-air attempts to influence them, or any on-air references to an ongoing or upcoming survey.

Rule #3:

IMPROPER USE OF BBM PROPERTY.

BBM frowns upon any misrepresentation of audience data in promotional material by not completely or accurately identifying the data.

Rule #4:

COOPERATION.

In order to assist BBM in coming to a fair judgement, your full assistance and disclosure is required in any investigation of a possible breach.

*Refer to booklet of Radio Rules and Regulations for further details.

BBM BUREAU OF MEASUREMENT. RADIO RULES AND REGULATIONS.

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