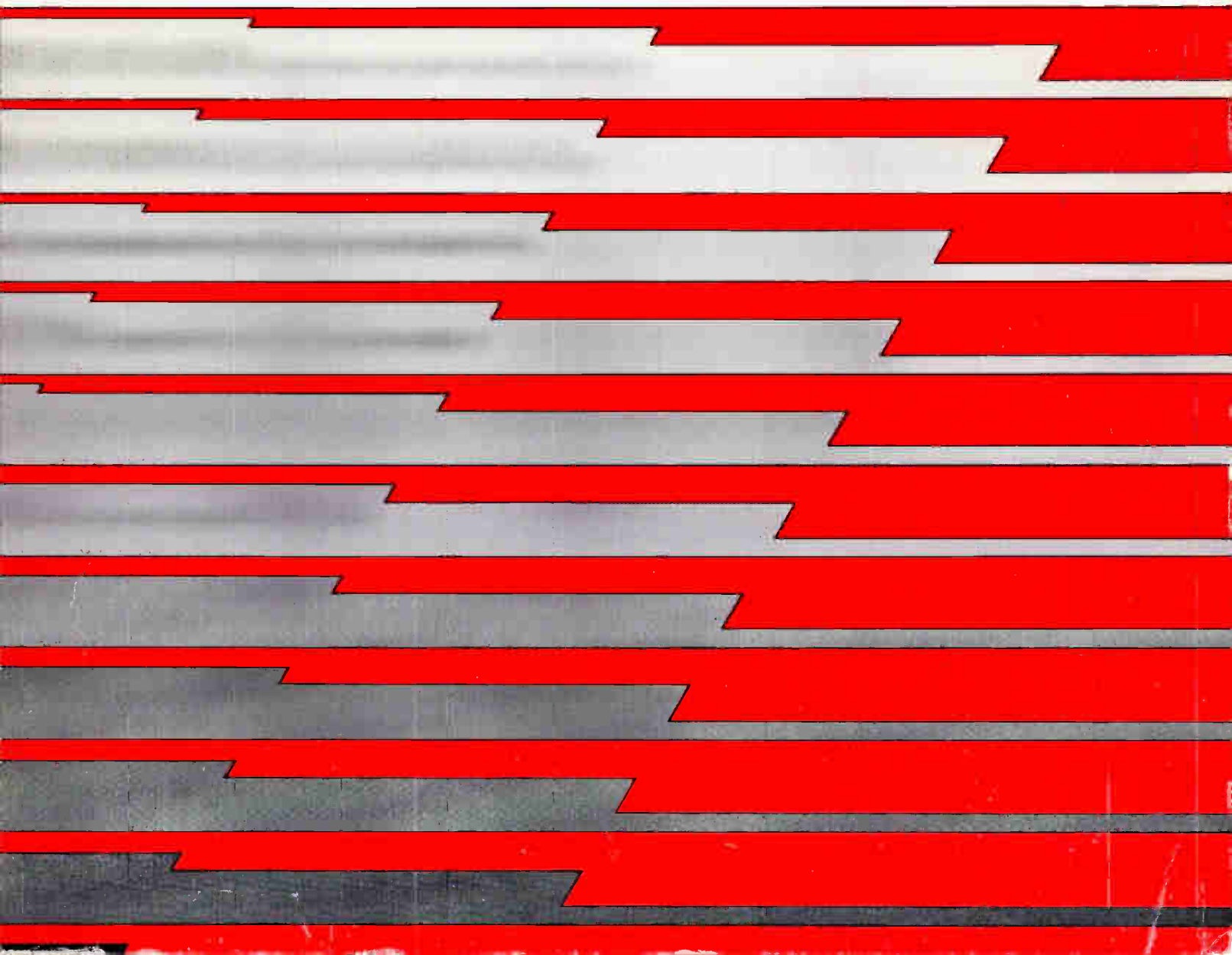
MUSIC & PROGRAM RESEARCH

By James E. Fletcher, Ph.D.



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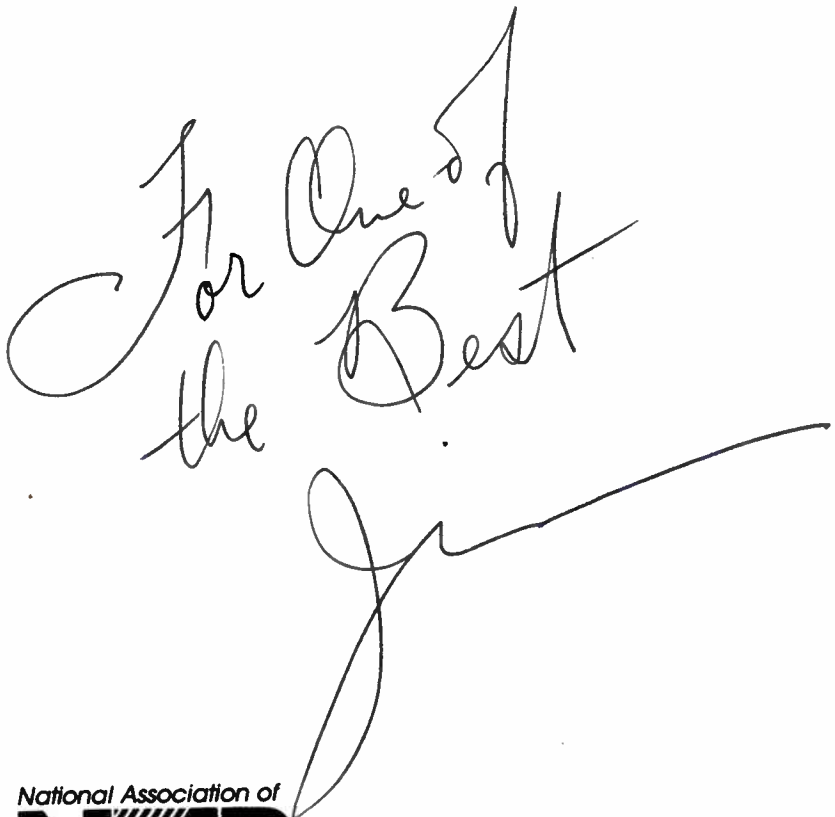

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PREFACE

One of the most exciting developments of the past decade in the telecommunications media industries has been the rapid growth of interest in radio research. This growth has not yet reached every market or every station, but it is already affecting the ways in which business in the radio industry is conducted.

This manual is intended for two audiences -- radio workers whowant to know how to exploit research in their work and radio research workers hoping to broaden their skills to include techniques for researching radio music and other radio program material.

The radio research methods included within the manual have been selected to meet several standards:

1. To be included, a research technique must represent a conservative approach to the problem for which it is suited. That is, the technique has been in use for some time, is well understood by authorities in the field, and has been the object of methodological studies by academics or by professional research companies.

2. The techniques included here can be explained in a straightforward manner with little advance preparation by the reader.

3. The research techniques included can be executed well by workers at local stations -- even though their research training or experience is limited.

To assist the research worker at the local station a large number of research questionnaires and worksheets have been included -- each suitable for photocopying directly from the manual for use in station research efforts.

Detailed sampling procedures are provided for each of the most frequently employed sample designs.

The manual does not deal extensively with analytic and statistical tools. References are offered to books and articles which can provide the interested reader with necessary additional instruction. The author is particularly indebted to colleagues and graduate students at the University of Georgia for their assistance with the methodological study summarized in Appendix A.

This manual includes materials from two earlier manuals from the National Association of Broadcasters co-authored by Dr. Roger D. Wimmer of Survey Consulting and Research. His help and encouragement in this and earlier projects is much appreciated.

Responsibility for faults in the manuscript must reside in the author and I apologize for them in advance.

James E. Fletcher, Ph.D.

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CONTENTS

ONE

TWO

THREE

FOUR

FIVE

SIX

SEVEN

APPENDIX A

APPENDIX B

APPENDIX C

APPENDIX D

ONE

THE PURPOSE OF THIS MANUAL

This manual deals with program research -- research designed to determine what type of radio station broadcasts appeal to audiences. There is no need to remind any broadcaster that programs with stronger appeal mean larger audiences, higher ratings, and increased advertising revenue.

Program research has a definite relationship to advertising revenue, similar to that of research in nearly all business. Research is justified to the extent that it improves the ratio of revenue to cost. The goal of business research is to discover how each dollar invested in the enterprise can produce revenue. Since maximizing revenue is also the goal of the business manager, then program research in business is -- by its nature -- a function of management.

RESEARCH OBJECTIVES

One of management's roles is to set objectives for the organization and its parts. In conducting research, radio management must establish appropriate goals. Although busy managers are often assisted by researchers in developing research objectives, a research effort should not be self-directed.

A research objective is a statement connecting an information collection goal with a specified part of the audience of the radio operation. The research objective identifies (1) the questions to be answered and (2) from whom the answers are to be sought.

Suppose that your news/talk radio station has recently lost the host of its weekday morning public affairs interview/call-in show. Your

former host has been hired by the cross-town competition, where he is now hosting a similar show during the same daypart.

Your station's manager of operations has convened a strategy session. After discussing the host's departure, the group agrees that the flow of programming from news during morning drive to a public affairs oriented call-in program from 10 a. m. until noon is still sound policy. Drive-time news delivers your largest audiences, and this program flow encourages news listeners to lengthen their drive-time listening to include the call-in show, which is built upon the appeal of the news.

Working from this consensus, the staff has recommended that you seek a replacement host from among the station's news workers. One reporter has frequently presented news features during the morning call-in show. The manager of operations has prevailed upon him to serve as a temporary replacement for the morning call-in host.

After several days, the manager of operations calls another meeting. "We need some research!" she declares.

Remembering the first lesson of radio program research, you and the other researchers respond, "What is the research objective? A research objective is supposed to tell us what we are to find out and from whom." A lengthy brainstorming session follows. Based on questions raised during that session, you can develop several research objectives:

1. "How will this change in hosts affect our regular listeners?" This question is restated as a possible research objective:

-- Are there changes in time spent listening (TSL) or in attitude toward the program among listeners who are loyal to the weekday morning call-in program?

2. "How many listeners will our old host take to the competition?" yields a possible research objective:

-- Will listeners loyal to our weekday morning call-in program sample the competition more often during our program, due to the old host's move?

3. "How will these matters affect the rest of our schedule?" This question is so general that it must be expressed in two objectives:

-- All dayparts considered, how has time spent listening (TSL) changed following the installation of the replacement call-in show host?

-- Among all those in the community who listen to news/talk radio stations (either our station or the cross-town competition), has the image or position of our station changed following the installation of the replacement host?

4. "What can we do for the new host?" Can research contribute to his development as a popular call-in host? This question leads to a number of possible research objectives:

-- Among listeners previously loyal to our morning call-in program, how is the new host perceived?

-- Among listeners who in the past sampled our morning call-in program only one or two times per week, what is the frequency of sampling under the new host? Why?

-- Among those who have heard the new host in his first several days, what qualities of the host are most and least liked?

-- Among those who have sampled the old host on his new program, how many are likely to return to our station? Why?

The previous discussion should illustrate how research objectives clarify the questions that inspire them, and specify those segments of the audience who will provide answers to those questions.

The meeting with management generated many research objectives--probably more than the limited research budget of a typical middle-market station could accommodate. Assigning priorities to the research objectives is an important step in the process of developing them, and it is where management most heavily influences the research process.

To continue the previous example, the manager of operations indicates the research program's highest priority in a follow-up meeting by saying, "Of all the questions we have considered, I am most interestedin answers to this one -- 'among those who have heard the new host in his first several days, what qualities of the host are most and

least liked?' This question is important to me because (1) I can do more about the new host and his program than I can about the competition or about listeners who are going to take several weeks to form new loyalties, and (2) these answers will give me more information on ways that we can strengthen the rest of the program schedule, station promotion and advertising."

In response to this guidance, you and your staff further refine your research objectives as follows:

1. Among those who have heard the new host in his first several days, what qualities of the host are most and least liked?

2. Among listeners previously loyal to the morning call-in program, how is the new host perceived?

3. Among listeners who in the past sampled the morning call-in program only once or twice per week, what is the frequency of sampling under the new host? Why?

4. Among those who have sampled the old host on his new program, how many are likely to return to our station? Why?

RESEARCH OPERATIONS

Research operations are efforts made by researchers to satisfy the research objectives assigned to them. This task may be as simple as negotiating a contract with a local or national market research service firm, supervising contractor effort, and assuring compliance with the terms of the contract.

This manual assumes, however, that the radio organization must undertake the required research itself. By explaining each step of the research process, this manual prepares you, the reader, either to conduct the research yourself or to supervise research contractors.

It is not true that research can be practiced and understood only by highly trained specialists. Some well-trained specialists have made radio research their life work, but many other radio workers can learn to conduct research, and nearly all can learn to understand it. The radio worker who has come to understand research will make far more effective use of it. Furthermore, since the purpose of research is to optimize return on investment, research-smart radio workers will

inevitably increase the productivity of the radio operations that employ them.

Research operation can be divided into a series of steps, each of which in turn involves a two-step process of of preparation and execution:

1. Identify a pool of qualified study participants.
2. Collect the required research information (data).
3. Analyze and interpret the information collected.
4. Report the results of the study.

Identifying Qualified Study Participants

Let's assume that you are investigating registered voters' attitudes toward the President of the United States. You know that 70 percent of adults in the U.S. are registered voters. From this knowledge, you can estimate that about two of every three adults you contact will be qualified to participate in the study.

The rate at which qualified participants are encountered in a population is labeled incidence. For example, if qualified study participants must own a dishwasher, and if 60 of every hundred householders in the community owns dishwashers, then the incidence of dishwasher owners among householders is 60 percent.

In the case of radio audiences, incidence can be quite low. The average quarter hour adult audience for top-rated stations in some markets and during some dayparts may be less than three or four points (three or four percent) among adults in the market. In other words, the incidence of total adults who listen to these popular radio stations may be three or four percent.

Incidence can be lowered even further by research objectives that require respondents with special qualifications. Returning to the previous example of the news/talk station and its morning call-in program, the cume rating for the program among Total Persons 12+ (the percentage of all persons over the age of 12 who listen to at least five minutes of the program during one week) is eight rating points (percent). Other figures from the local market report reveal that the exclusive cume audience is only 34 percent of the program's total audience. (This means that about one third of the call-in program's listeners are exclusives -- that is, they listen only to the call-in show during this time. This percentage represents a very favorable ratio

of exclusive listeners to total listeners.) Combining these figures, we can see that only three percent of total persons over age 12 (34 percent of 8 percent) are loyal listeners. The incidence of loyal listeners among everyone over the age of 12 in the market is therefore three percent.

With this rate, a telephone interviewer calling at random would have to contact one hundred persons to locate three who are loyal listeners of the morning call-in show. Since this requirement may necessitate a lengthy period of interviewing, we must consider how the passage of time will affect the results of the study.

With the example of the news/talk station's change of hosts, we can expect listener reactions to the new host to change day by day until he becomes thoroughly familiar to the audience. As a consequence, our studies need to be conducted in the shortest possible period of time, providing a snapshot of changing listener reactions which can be compared with similar studies in the past and future.

We must begin the study by locating qualified study participants. This process can be divided into two stages: (1) qualifying a pool of potential participants and (2) contacting them for interviews.

First, we will telephone a very large group of radio listeners at random, asking a short series of questions such as:

-- Do you typically listen to the radio on weekdays between 10 a.m. and noon?

-- During any part of the typical weekday, do you listen to Station D (our cross-town competitor) or Station A (us)?

Those who answer affirmatively to both questions are qualified to participate in our study. They will become our sample for interviews during the following week, when we will ask them detailed questions about the morning call-in program.

In addition to identifying qualified study participants, we must seek their cooperation. We will go to considerable trouble to assure that our sampling plan produces a fair representation of the audiences we want to study. If significant numbers of that audience refuse to cooperate with the interviewers, then the sample will not be representative.

This difference between the "sample as designed" and "sample as recruited" is referred to as "error" and is one of the serious problems facing radio researchers. Cooperation among audience groups is declining, and researchers must make increasingly strenuous efforts to secure cooperation.

Collecting Research Information

The methods for collecting research information on radio programming include (1) interviewing by telephone, (2) face-to-face interviewing, (3) focus group discussions and depth interviews, and (4) theater studies.

Interviewing by telephone. The reliance upon telephone interviewing to collect data has increased dramatically over the past decade and is likely to increase further in the foreseeable future. The two primary reasons for this increase are cost and computers. The cost of all types of interviews has been increasing, as have virtually all research services, but the cost of face-to-face interviewing -- the principal alternative to telephone interviewing -- has increased even more. As a consequence, face-to-face interviews have become prohibitively expensive in many cases, and telephone interview skills and facilities are in greater demand than ever.

The second factor in the increased use of telephone interviewing has been the spread of computer-assisted interviewing facilities. In computer-assisted interviewing, the computer tells the interviewer what question to ask and in what order, greatly reducing interviewer errors. The interviewer types the answers given by the respondent directly into the computer console. Then the answers are fed directly into data process routines, relieving the researcher of the time-consuming steps of questionnaire coding and keystroking.

Face-to-face interviewing. Face-to-face interviewing requires interviewer and respondent to meet in person. The interviewer travels to the respondent's home or business, or stops respondents in shopping malls or on shopping district streets.

Face-to-face interviews are thought to be credible because they have face validity. There is no hard evidence, however, that face-to-face interviews and telephone interviews provide different answers in most kinds of radio program research.

Although its results may be no different, face-to-face interviewing definitely differs from telephone interviewing in that it is more difficult and expensive. Many householders -- particularly in urban areas -- do not answer their doors to strangers, due to a wish to avoid

salesmen or a fear of violence. And working on the street in some cities may be as hazardous to interviewers as it is to residents. Results of these trends include lower cooperation rates from sample respondents and greater difficulty in locating and retaining accomplished interviewers.

Focus group discussions and depth interviews. These are special cases of the face-to-face interview. The focus group technique involves a conversation controlled for purposes of information collection with a carefully selected sample of listeners. Instead of using a questionnaire, the interviewer -- who is called the facilitator -- works from a guide that provides topics for group discussion but does not frame the questions in detail. The objective of focus group interviewing is to explore topics in the language of the respondents. It is not a method for estimating the size or composition of audiences. For this reason, the focus group technique is a favorite for studies of station image, market position and reputation.

Depth interviewing is similar to focus group interviewing in that the interviewer uses a general guide rather than a detailed questionnaire. It is different in that respondents are interviewed one at a time. Depth interviewing offers the advantages of collecting audience ideas or reactions in their own language but removes the social influence of other participants in a focus group.

Theater studies. In theater studies, larger groups of study participants are invited to a central auditorium or meeting room where they are presented recordings of programs, music, or personalities. They respond by means of response accumulators (pushbuttons or knobs) or self-administered questionnaires. The principal benefit of theater studies is that they provide a means of collecting research information in a very short period of time. The technique requires only a minimum number of professionals to be involved. In addition, by presenting recordings in a theater setting, it is possible to assure that ideal listening conditions, using high-quality audio equipment, are achieved.

Some researchers conducting theater studies use response accumulators. These are electronic or mechanical devices which collect the reactions of the study participants. The best known of these various devices is the "audience analyzer," sometimes called the "Stanton analyzer." This device includes a small console provided to each member of the theater audience, and a central recording device. The console may be equipped with a knob or slide control that the participant operates to rate the material. Alternatively, the console may resemble the keypad of a telephone with keys marked by letters or

numbers defined by the researcher. For instance, key "1" may mean "strongly agree," while key "5" stands for "strongly disagree."

The information entered by the participants from their response accumulator consoles is transmitted through a system of wires to a central recorder, which collects and stores the audience's responses. A variation of this device collects the information from participant consoles on an audiocassette. Following the study, the audiocassette is played into a computer, which then analyzes the information and prints the results.

Still another version of the response accumulator involves no wires between consoles. In this case, each participant is given a hand-held computer, which shows the participant the questions to answer or the number of the recording being evaluated. The participants then enter their responses, causing the next question or recording number to appear on the display. Each response is entered in the computer's memory. At the end of the session, data are transferred from the hand-held computers to a larger computer for processing of the research results.

Analyzing and Interpreting the Information Collected

When the important research information has been collected, it must then be summarized, analyzed and interpreted.

The first step is typically refining and coding the information. With questionnaires, each questionnaire is reviewed to assure that it is complete, and that all responses are clear. In the case of open-ended questions (questions where participants are free to give any answer rather than to select among a set of alternatives phrased by the investigator), the responses must be categorized. This process is called coding, since each response category is assigned a number.

Summaries of numerical information collected in the study are presented as statistics and graphics, while other responses are summarized verbally.

Two analysis techniques are commonly used in radio research -- manual and computer. Manual analyses, using accounting spreadsheets, may be necessary when no computer is available and desirable when samples are quite small, but most researchers today use computers to analyze their data.

The computer analyses in this manual were prepared with statistical software known as the Statistical Package for the Social Sciences. SPSS is only one of a growing number of statistical analytic packages that can be used to analyze radio program research information. It has been

chosen for illustration purposes, because a large number of universities have installed the system on their mainframe computers. It is also available in a microprocessor version, and its operations are relatively easy for beginners to follow.

Many spreadsheet programs for desktop computers, programs such as "Lotus 1-2-3" and "Supercalc 4", are also well suited to summarizing and analyzing information from radio program research, although adapting them to statistical analysis may require more than a beginner's level of skill.

Reporting the Results

Well-prepared reports are important for a number of reasons. The most important is that reports prepared according to professionally recognized standards provide the best possible record of the research conducted. Adequate report preparation ensures that no crucial elements of the research process are overlooked, unfairly emphasized or glossed over, and that others will be able to read and understand the research, as well as to design subsequent research. It will also provide the best possible basis for management decisionmaking. The appendices of this manual provide a number of sample reports, which serve as models and illustrate how various research techniques are reported.

TWO

THE NATURE OF RADIO PROGRAMMING

Radio programming provides both the appeal and identity of a radio station for its listeners. The listeners who respond with loyal commitment to their favorite stations contribute to the value of advertising opportunities available to station clients.

Radio programming includes many types of entertainment and information. For the purposes of simplification, this discussion will divide programming into three categories -- music, information and personalities. The discussion provides references for readers who desire additional information.

MUSIC

The close and continuing relationship which contemporary radio listeners maintain with popular music would not have been possible as little as sixty years ago (see Fletcher, 1979). Until that relatively recent time, music had to travel from person to person and place to place by foot. Performers journeyed from one town to another, repeating performances of the same music. Music consumers assembled at concert halls, theaters, schools, and churches to hear them. A few families owned musical instruments and organized amateur musical performances. Some owned such early automated musical instruments as player pianos and music boxes, which made a small variety of different tunes more readily available. The average individual in these "good old days" spent only a few hours per week listening to music.

By the late 1880s, a number of inventors -- including Thomas Edison -- were working on devices which became known collectively as phonographs. In the 1890s, Edison established the first profitable use

of the device-- as an entertainment machine in penny arcades. To operate a penny arcade, the patron inserted a penny into an oak box nearly the size of a spinet piano. He then stuffed rubber hoses from the machine into each ear, and listened to the music. If he wanted to hear a second tune, he had to move to another box and pay another penny.

Despite its primitiveness, the earliest phonograph represented a quantum leap into a future of easily available popular music. It provided the first means of reproducing musical performances. Its novelty alone was great enough to establish a modest market. Performers were largely anonymous on those early recordings; the machines were the stars!

This situation soon changed, however, largely through the labors of Eldridge Johnson, who organized the Victor Talking Machine Company in the late 1890s. He exploited the patents of Emile Berliner, who had invented a recording device that used platter-like disks rather than Edison's cylinders. Sales of the disk machines were slow until Johnson hit upon the idea of "Red Label" recordings. At the turn of the century the United States was blessed with an abundance of famous opera stars -- Enrico Caruso, Ernestine Schumann-Heink, Edouard de Rezke, Antonio Scotti and many more. The relatively young Metropolitan Opera Company was achieving a world-class reputation. Newspapers and other periodicals frequently described the great accomplishments of the Met and its singers. But the vast majority of those who read eagerly about these stars had never heard them.

The Red Label disks capitalized on these star values, bringing the sounds of the famous singers into the homes of both the cultured and the merely curious. They were a smash hit. Families could buy a package of Red Label recordings and a machine at a special bargain price.

Enter Radio

The early developers of radio broadcasting took advantage of the phonograph in conducting their experiments during the first two decades of the twentieth century. Early public broadcasters such as Reginald Fessenden, Lee de Forrest and Frank Conrad placed microphones close to the sound horns of phonographs in order to provide sound for their transmitters to broadcast. In Pittsburgh, Conrad had his children play recordings over an experimental Westinghouse transmitter while he drove about town measuring transmitter signal strength. It was not long before the family began receiving requests to play various recordings for early radio amateur operators who found it entertaining to listen to recorded music (rather than Morse code) on the radio. Conrad's transmitter later became the pioneering radio station KDKA.

During these early days of broadcasting, recorded music was not considered altogether respectable. Listeners preferred live performances transmitted by radio. Even relatively small stations retained individual musicians and performing ensembles in order to provide their listeners with musical entertainment.

This trend continued until the late 1930s and early 1940s, when both radio and popular music began to change, due to a number of factors. Electronic recording apparatus had been introduced by Joseph Maxfield of the Bell Laboratories in the mid-1920s. One of the first successful applications of this invention was Columbia Records' best-selling recording of "Adeste Fidelis," sung by a group of college glee clubs assembled on the stage of New York's Metropolitan Opera.

The electronic records provided depth, brilliance and realism that thrilled the public. By the late twenties and early thirties, electronically-produced records fueled the increasingly popular juke box, which in turn was becoming the centerpiece of such teen-age hangouts as soda shops and dance halls.

At the same time, phonographs' declining cost and more powerful sounds allowed many teens to bring scaled-down versions of the juke box into their own homes, giving rise to distinctly teen music. The increased sensitivity of the microphones used in electronic recordings made it possible for singers to be selected for their appearance rather than for their strong voices, an important consideration for teen audiences. These trends accumulated in a significant new market for records among teens -- and heralded the age of the "bobbysoxer."

Broadcasting was an important part of this picture. "Your Hit Parade" began life as an NBC radio program in 1935 as the "Lucky Strike Hit Parade." By 1950, it was being presented on television as well. In the typical episode, the seven "most popular recordings in America" were performed by a cast of regular singers. With its many imitators on both radio and television, "Hit Parade" gave the illusion of a single national taste, and fostered the impression that any young person who did not know the "hits" was indeed strange (Brooks and Marsh, 1981, pp. 844-845).

During World War II, in deference to the war effort, the Federal Communications Commission did not authorize new radio stations. This meant that most communities were served only by the small number of stations required to provide access to major national network services. After the war, many new radio stations were licensed, in many communities exceeding the number of available national network services. Many of the new stations turned to recorded music as a principal source of programming.

Record producers were quick to recognize the potential of this combination of teens' desire for "hits" and the increased number of radio stations dependent upon recorded music. They realized that airplay of their recordings would increase record sales. And they saw the relative importance of teens as enthusiastic buyers of recordings. As a result, radio and the record industry began to develop a symbiotic relationship (Eberly, 1982, Chapters 11-13).

There have been several apparent consequences of the increased amount of recorded music on the radio. One is that the adolescent and post-adolescent years have become the years during which musical tastes are formed for a lifetime. Another is that the amount of music consumed by the American public every day has become large.

The Development of Musical Taste

Music has become a key ingredient in the peer acculturaltion of American teens. Acculturation is the process by which the new or newly arrived learn to become members of a group. Peer acculturation occurs to some extent at every age spent with peers. In Western society, however, adolescence has been marked by strong bonds forged among peers as an alternative to the influence of parents and other elders. The beneficial aspect of this pattern of acculturation is that it helps young people establish identities separate from those of their parents. At the same time that the adolescent is bonding to peers through the process of learning popular music -- by attending concerts and dances, listening to music, and purchasing recordings -- he also is separating from younger siblings. Several generations of adolescents have labeled the musical preferences of younger siblings "bubblegum music." This derisive term helps barricade the teen peer culture from younger non-peers. With each new adolescent generation, "bubblegum" music refers to a different musical style, but continues to evoke expressions of frustration and despair from teens over the future of subteens with such tastes.

The adolescent peer culture teaches much more than musical taste, but the relative salience of music in the culture -- as it functions in courting, self-expression and fun -- tends to mark each generation with a distinctive musical style. More than three decades ago sociologist David Riesman (1950, p. 143) wrote:

> "...many factors, including the youth orientation of the culture generally, lower the age at which children venture into the 'personality markets' to be judged by their

> success in terms of popularity. As high schools adapt the social customs and listening habits previously postponed until college, so the grammar schools tend to ape the high school in dating patterns, proms, and so on. At the same time, the personalities of the popular music industry have every reason to cultivate the child market and are quite willing to 'rob the cradle.' This convergence of forces means that children are compelled to learn to respond to music, in a fashion their peer group will find acceptable, at increasingly earlier ages. Under these pressures, music can hardly help becoming associated with both the excitement and the anxieties of interpersonal relations."

Following patterns predicted by Reisman, today's young people -- by the time they reach late adolescence -- have adapted fashions, speech habits, and a general outlook which identify them with their peers for life.

The Social Psychology of Listening to Popular Music

From the individual listener's point of view, certain facts about music listening stand out:

1. Listening to music is almost automatic: clock radios turn on the music in the morning and -- withslumber controls -- turn it off at night.

2. People listen to music at all times and in virtually all places. Waterproof radio receivers bring music into the shower. Radios the size of credit cards connect runners and athletes with their favorite music stations.

3. While some listeners are more aware of lyrics than others, most do not recall lyrics well. Lyrics seem to function much like other musical elements in a song.

4. Listeners who are unable to find a source of their favorite popular music tend to become irritable and nervous.

5. **Familiarity is an important element in the fan's attachment to favorite music.**

What makes popular music so appealing? In their works on the social psychology of music, Lundin (1967) and Farnsworth (1969) point to strong, vigorous rhythm as the element of music largely responsible for the music's emotional effects. Other scientists identify the structure of the brain as the source of music's appeal. They point out that the right hemisphere of the brain is the focus of music processing, while verbal processing is localized in the left hemisphere. Since the purpose of human language is to permit people to control one another, they reason, language processing (left hemisphere) is inherently stressful. Since music is processed in the opposite cerebral hemisphere, listening to music should be relaxing.

The rhythmic elements of familiar music greatly augment these reactions concentrated in the right hemisphere. Malmstrom (1970), a psychophysiologist (one who studies the connections between brain function and human behavior) has reported that rock music fans -- after relatively short exposures to their favorite music -- synchronize their heartbeats to the beat of the music!

This observation is underscored by the fact that tempi (the number of beats per minute) of popular music fall within the normal heart rate range of young people (typically 60 to 130 beats per minute). The change in heart rate associated with popular music listening is bidirectional. What this means is that music can reduce a heart rate that is somewhat elevated as from exercise or excitement; it also can increase a heart rate that has been depressed from recent sleep, anxiety, or depression. Thus music functions somewhat like a drug, combining the effects of "uppers" and "downers" without dramatic or unpleasant side effects. When heart beat is regulated in this manner, the result is a general sense of well-being, of alertness and calm. This effect of music may account for many people listening to music in order to accomplish more work.

In addition to affecting heart rate, music also affects the rate of breathing. Breathing rate can easily be synchronized to almost any rhythmic sound. Normally, an individual breathes about once every three or four heart beats. As any musician can testify, this rate corresponds to the most popular meters in music. (Meter is the number of stressed beats in a repeated cycle of stressed and unstressed beats. Waltz rhythm, for example -- a three/four rhythm -- is one stressed beat among three beats.) Many popular songs are written in three/four or four/four patterns. In other words, the ratio of stressed to unstressed beats in popular music corresponds roughly to the ratio of breathing to heartbeat.

Regular breathing is associated with steady and relatively pleasant states such as sleep, deep relaxation and concentration.

If a listener to music taps a foot or claps or snaps fingers in rhythm with the music, then the rhythmic effects of the music are amplified, because the nervous impulses of movement coincide in the brain with the nervous impulses arriving from the ears.

Any familiar music, regardless of its style, may produce these effects. While the evidence is not complete, it is reasonable to believe that music plays an important role in helping people cope with daily life, particularly with stress.

For this reason, it is no wonder that radio music has become a regular companion for the great majority of Americans, and such an important consideration in their choice of radio station.

Categories of Familiar Music

The music most familiar to any group conforms to the style taught by its peer culture during the late teen years. By exposure to other musical styles, a listener learns to tolerate and appreciate them as well, but the musical style of his formative years continues to exercise strong influence over his taste.

Within any familiar and preferred style of music, it is common for programmers to use some or all of the following categories to differentiate musical selections that belong in a station playlist.

Current. A potential current is any song in a given musical style that has been released recently or that has appeared recently on music industry charts. It is not always correct to characterize a "current" as new music, since popularity is based on resemblance to music already familiar to the targeted audience. Actually, fans expect only about fifteen percent of a song labelled "new" to be really new. If a familiar and beloved performing group releases a recording in another musical style, old fans often issue a strong negative reaction. For example, many "country" musicians have made "crossover" recordings in other popular styles, leaving upset country fans in their wake.

Recurrent. A recurrent is a song that has been in release for some time and has enjoyed sustained popularity, enough to justify its continuing place on station playlists. The exact age at which a current becomes a recurrent may vary from one music programmer to another. For some stations, a current becomes a recurrent eighteen months after its initial release.

Oldies. An oldie is a musical selection that has previously been a current or a recurrent, but not in the recent past. Its high and continuing popularity justifies its continuance on the playlist. Most oldies are selected to target listeners who were ages fifteen to twenty (or thereabouts) when they became attached to those particular songs.

Standards. Standards are new versions of oldies. They come into being when new performers record oldies, responding to the tastes of fans who once loved the original music. Standards can be a means of bridging musical styles-- making a popular ballad into a big band instrumental, for example. As such, they are common ingredients in "beautiful music" formats.

A station playlist may include any combination of these categories, according to the decisions made by the programmer.

NEWS

While popular music is the primary reason people listen to radio, news is the second reason (National Broadcasting Company, 1983). The vast majority of listeners consider the validity of local, national, and world news an important factor in selecting a radio station. Slightly more than half of the radio audience indicates a preference for a particular radio station for news.

Radio audiences also are interested in up-to-date information on the weather, time, traffic, and public events. Combined with the desire for news, the information category appears to be nearly as important as music to listening audiences.

Radio news plays a different role than newspaper, television, or magazine news. It is the most frequently named medium for receiving the first news of important events (National Broadcasting Company). Radio actualities, more easily obtainable than film or videotape, provide a vivid and compelling version of the news. Although radio listeners report that they receive most of their news from television, radio nevertheless is principal source of news for nearly a quarter of the population. Furthermore, American adults who get their news primarily from radio outnumber those who rely on local newspapers for the news.

Of course, these data do not imply that news and information offerings are identical at all radio stations, or that listeners to stations of one format have the same news and information expectations and needs as do audiences of stations using other formats. Today's radio listener can listen to a number of stations; one of these

favorites probably has been selected due to the quality and timeliness of its news and information offerings.

Radio audiences use news and information in a number of different ways, including those described below.

As a cue to more intense news seeking. Suppose, for example, that one hears on an hourly radio news summary that the city council met last night and considered several applications for exceptions to the zoning of various tracts of land. One application concerns a property zoned for single residences, to be rezoned for commercial waste disposal. Concerned about this possibility, the listener changes from his favorite music station to an all-news radio station to learn more about this situation. At the same time, he may purchase a newspaper to read a detailed report of the city council meeting.

For conversational currency. Items from the news are the safest and most frequent topics for discussion among casual acquaintances. Someone who does not know the weather forecast, the box scores, or the candidates in a local election may feel left out of conversation at work or in the car pool. Yet people do not need in-depth information to participate in casual discussions of current events. Thus they can obtain sufficient information for this purpose by listening to occasional news summaries.

For specialized information. An example of the need for specialized information is the early morning, when parents of school children want to know about the weather, possible school closings, and/or the school lunch menu. Near the end of the day, many adults want to know about traffic conditions, the schedule of local recreational events, and the latest trading in stocks and bonds. Farmers want to know about weather conditions and commodity prices. Use of radio as a specialized source of detailed information is growing, and is launching a number of ancillary services offered by radio subcarriers and via the telephone network.

For in-depth news. Not everyone in the community wants news in depth. The incidence of in-depth "news seekers" in the general population is estimated to range from five to fifteen percent. News seekers tend to be those who feel more involved in public affairs, perhaps because they are active as opinion leaders, government workers or volunteers. Whatever the reason, a news seeker tends to remain a news seeker over the years, consuming more than the average of each type of media in which news is offered. This part of the community is most interested in attending public events, in viewing gavel-to-gavel telecasts of Congressional hearings, and in knowing the reasons for the adoption of public policies. News radio stations may be particularly

attractive to this group. The profitability of the all-news format often is a function of the number of news seekers in the community, and their relative value as customers of community businesses.

In assessing the quality of news offered by a radio station, listeners consider a number of characteristics, described below.

1. News or information is timely. It informs listeners about events in enough time for them to take appropriate action. For example, timely traffic information enables listeners to plan and switch to alternate routes to avoid tie-ups.

2. News or information is accurate. People depend on the news for accuracy, and become upset if they take action -- for example, choosing an alternate route to work -- unnecessarily. Listeners have more confidence inthe news if announcers pronounce local place-names or foreign words confidently and accurately.

3. News is concise. Listeners are particularly incensed by the inclusion of irrelevant detail in news stories, believing that it is an editorial ploy to present a biased view. Suppose that a news item reports that, due to trees felled by a sudden summer thundershower, electrical service is interrupted for consumers in the northwest quadrant of the city. If the reporter adds that this is the tenth consecutive year that trees have fallen due to thundershowers, many in the audience will interpret the comment as a criticism of the local power company for lack of preparedness.

4. News is not overly repetitive. Listeners expect the most important news stories of the day to be repeated in regularly scheduled newscasts. Such repetition is justified to inform listeners just tuning in and to present the latest developments to listeners who already know of the story. Listeners will not tolerate repetition that is not obviously motivated by these considerations, however, and will consider it evidence of bias.

5. News is fair to people in the news. Listeners are offended by the reporter who insists on asking the widow of the slain policeman, "Can you tell us how it feels to lose your husband?" They also take offense

when reporters permit only brief answers to questions related to trial cross-examination. Unfair behavior by a reporter is particularly apparent in radio, and listeners are ready to believe that such unfairness is the consequence of station policy.

6. News staffs respond to the special concerns of the public. Radio audiences expect their favorite stations to respond to community issues and needs. For example, if a community is experiencing high rates of youth unemployment during the summer, radio stations often respond with summer job campaigns. Throughout the history of broadcasting, such public spiritedness has been a point of pride for the industry.

The brief list above only suggests the kind of news programming that is important to listeners.

PERSONALITIES

A personality is almost anyone who appears on a radio station with anassociated name -- a given name, a professional name or a character name. Station managers who personally deliver station editorials on the air are personalities. An unidentified voice is not usually called a personality, even though the voice may be very important in establishing the station's unique identity. At many stations, the "morning man" or "zoo crew" are among the most readily identifiable personalities. But the member of the news staff who reads the hourly news summary is also a personality. Talk show hosts, weathercasters, traffic reporters, featured and syndicated commentators are other personalities.

Each of these personalities contributes to station appeal in a special way, but there are certain ways in which they share functions. One of these ways is in projection of acceptability. Radio listening tends to be an individual behavior, while television tends to be consumed by groups. Radio is pervasive; there are few aspects of life from which radio is barred. As a consequence, listeners tend to develop "intimate relationships" with radio personalities. Like a real-life friend who displays concern through communication, the radio personality who communicates the day's stock market transactions seems to project concern for the listener's financial well-being. By communicating such interest, the radio's financial reporter enhances the station's acceptance among listeners.

Competence is another important dimension how audiences' perception and appreciate station personalities. In some cases, a personality's competence may not be immediately apparent, as with the "morning guy" noted for his nonchalance and spontaneity. Despite these qualities, audiences recognize that this joking personality -- like the station's more serious personalities -- is "in control." He knows what will happen next, and may keep the audience in suspense about it. Personalities who do not project competence elicit reactions of uneasiness and discomfort from listeners.

An important element of this perception of competence is how the personality uses language. Contemporary audiences are more tolerant of language variations than those of the early days of radio, which expected personalities to possess impressive resonance and sure command of a "general American" accent. Nonetheless, today's successful personality must have clear speech, even if it is distinctive, and his or her choice of words and phrase must bespeak a certain eloquence.

In addition to these general expectations of radio personalities, there are specific requirements as well. The host of a talk show -- still called a "communicaster" in some quarters -- is expected to allow a caller to express an opinion before interrupting with an objection. Communicasters are also expected to have and express their own opinions, without overshadowing those of guests or callers.

Discovering these expectations of personalities is one of the missions of program research. Once expectations are noted, personalities may be evaluated against them. For some types of personalities, enough research has been conducted and published that the profile of the ideal personality can be discerned. (A good example is the news personality described in research published in such academic journals as Journal of Broadcasting and Electronic Media.)

WINNING MARKET SHARE

It is the ambition of most radio programmers to maintain and to increase the share of available radio listeners who regularly and loyally tune to their service. From a research perspective, the problem of achieving greater share can be divided into a number of task components.

1. Increase time spent listening by loyal and exclusive members of the station audience. Increasing time spent listening increases the average quarter hour of the station by causing the same listener to appear in more quarter hours. If 25 members of the rating

company sample in a market are exclusive listeners to Station A, and ten of these are listening during the average quarter hour during weekday morning drive time, then the average quarter hour would include 40 percent of the exclusives in the sample. If, on the other hand, the appeal of the station could be enhanced so that 20 of these 25 exclusives listen in the average quarter hour, the number of exclusives in the average quarter hour will double. In addition, loyal and exclusive listeners are the audience components most aware of the slightest change made in programming; they are the first to respond to enhanced appeal. As a consequence, increasing the time spent listening by these faithful audience members may be the least expensive way to increase ratings.

2. Increase the frequency with which those faithful to other stations sample the station's programming. Those who already tune in the station during some daypart will be the second group to become aware of a programming enhancement. Promoting the enhanced format will be less expensive because on-air promotions can be effective with this group.

3. Encourage those not yet aware of the station to sample. This group, in turn, may be subdivided into those faithful to similar formats, those whose special needs are uniquely met by station offerings, and others.

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THREE

SAMPLING TECHNIQUES -- LOCATING A POOL OF QUALIFIED STUDY PARTICIPANTS

The previous chapter discussed the nature of radio programming, which is the subject of current and future research conducted by stations seeking to maintain and expand market share. The first step in conducting radio program research -- or any research, for that matter -- is to obtain a sample for study. In radio research, researchers usually examine the attitudes and preferences of people who listen to radio. For each study, it is necessary to assemble a pool of qualified study participants who can offer the sought-after information. This lesson discusses sampling techniques, beginning with definitions of specialized terms used in sampling.

TERMS USED IN DESCRIPTIONS OF SAMPLING

Sampling has become a relatively sophisticated art practiced by statisticians specializing in these techniques (see for example Cochran, 1963; Sudman, 1976; Madow, Nisselson & Olkin, 1983). Below are some of the specialized terms used to describe sampling.

> *Area Probability Sample* -- a random(probability) sample in which a representative subgroup of study participants is recruited according to its geographic location.
>
> *Cluster Sample* -- one ofseveral possible area probability samples in which geographic "sampling points" serve as centers of standard patterns of residences where study participants will be interviewed.

Non-Probability Sample -- a sample selectedwithout regard to probability or chance; not a random sample.

Population -- the set ofall potentially eligible study participants from which a sample is to be drawn; sometimes called a universe.

Purposive Sample -- a sample chosen on the basisof its apparent similarities to a population of interest.

Quota Sample -- a sample selected sothat various categories of study participants are represented by specified minimum numbers of individuals.

Random (Probability) Sample -- a subsetof a population, each member of which is equally likely to be selected into the sample.

Sample -- a subset of a population or universe.

Sample Bias -- those aspects of a sample thatdiffer systematically from the population or universe from which the sample was taken.

Sample Frame -- the list of potentially eligible study participants or their locations from which study participants will be sampled; a list of the population or universe.

Sampling Error -- an estimate of the difference between the average measurements obtained from a sample and the average measurements that might have been obtained had the entire population or universe been measured.

Sampling Unit -- the element drawn froma sampling frame in making selections into a sample.

Stratified Sample -- a sample which is a compositeof samples drawn independently from categories of study participants identified in the population or universe.

RANDOM PROBABILITY SAMPLES

Simple Random Sample

A sample from a population or universe is considered to be random when (1) the likelihood (chance or probability) that any member of the population will be drawn into the sample is the same as that for any other member of the population and (2) each selection into the sample is made independently of every other selection.

The random sample is popular simply because of its randomness; it optimizes the probability that a sample will be representative of the population from which it is drawn. In addition, most of the powerful statistical analysis procedures in general use are designed to work with random samples. When a sampling procedure is not random, researchers cannot be sure that the sample is representative of the parent population.

A simple random sample consists of one stage: selecting the sample from the population, without first dividing the population into categories (as with the stratified random sample discussed later in this lesson). Perhaps the most straightforward technique for drawing a random sample involves the use of a table of random numbers, as shown in Table 3-1. To use this table, the researcher first numbers the sampling units in a sampling frame. He or she then uses the table to guide the selection of sampling units.

For example, let's assume that you work at a radio station that gains considerable promotional mileage from its annual live on-the-scene coverage of the state fair. People enjoy seeing and meeting your station's radio personalities and touring the station's mobile broadcasting facilities, with its studio-to-transmitter (STL) links, microphones, and wire service printers. Each fairgoer who takes the tour signs a guest register listing name, age (if a child) and telephone number. To encourage people to sign the register, your station conducts drawings for station T-shirts several times each day, using the register as the list of potential winners.

Station management is concerned, however, about the effectiveness of the tour as a promotional element. Management asks you, the station research director, to interview a sample of those who participated in the tours during the last state fair.

Your first task is to select a simple random sample of people to interview. To do this, you begin by numbering the entries in the guest register. In this case, the guest register serves as both a sampling frame (or list) and a population (the group of eligible study

Table 3-1

Table of Random Numbers

14170	50645	15265	22727	13115	08239	83515	90327
91710	43990	34609	28464	85505	27874	54675	44461
14480	38183	72653	06032	80068	91121	30895	43527
62296	44633	48252	89729	71183	77433	21649	50580
37303	65861	82750	95674	88547	34438	55382	44691
64149	11912	57872	60307	72875	69585	64023	56657
35126	88039	57719	02195	02089	88121	26096	30725
69209	29625	01253	19048	23847	59845	52333	59371
32751	91375	58323	71449	92339	51019	93395	86404
98660	27020	00276	09781	75150	02108	88804	71155
56738	58522	36670	98301	73612	27938	93583	25187
11197	38257	23155	60654	70870	47382	90712	60188
03826	89783	93557	77208	07558	37887	26574	97716
67929	37547	17321	15232	68066	81800	33018	53129
18841	54788	63286	61417	04843	72753	11079	82532
60811	09968	85781	68280	44693	18840	34866	88806
13591	74583	42635	45198	00871	12012	30590	32789
12233	53369	87665	35756	10512	23760	87222	26189
29988	12192	97858	19991	44142	48752	17794	61500
13891	92464	31887	68851	54703	73570	43092	61795
96113	12076	96682	48837	86361	72622	18060	68881
72680	20150	48719	67803	21707	87994	31421	21299
47346	41782	64052	52939	42707	05748	25912	39451
46383	24623	38103	69418	77354	32642	04212	18422
82296	33203	48959	16832	97245	19192	21566	04478
56613	57424	73770	31353	65346	43305	38660	46800
70791	01940	30470	22995	34621	40298	89284	21416
48013	57951	72409	19173	57173	14922	77163	58795
36068	87629	15374	11055	16598	25088	93671	20497
85471	64192	41114	47408	84710	17666	28112	39378
05412	52883	19061	78777	08084	67787	71855	22823
32823	89502	88809	43040	63854	01067	27449	93828
74794	40407	91282	09791	10124	37875	04448	41566

participants). You find that there are 2568 entries in the guest register, which you number from 0001 to 2568. Having decided to interview one hundred tour participants, you know that you must draw more than one hundred listings from the register in order to be able to collect data from one hundred. Since four out of five persons responded the last time you performed a telephone survey, you assume that your participation rate for this survey will be about the same. Thus you will need a random sample of 125 persons (80 percent -- four out of five -- of 125 is equal to 100).

The next step in drawing this simple random sample is to select from the table of random numbers 125 numbers falling in the range 0001 to 2568. You can start anywhere at all in the table. Quite arbitrarily, you decide to begin with the first four digits of the top left block in the table (although any other point would serve just as well). The first four digits are 1417.

Since this number falls within your predetermined range, you write it down. The four-digit number just beneath it is 9171. This number is outside the predetermined range (0000 to 2568), so you ignore it. The next number is within the sought-for range, so you write it down. As you work down the first column of numbers, you compile the following numbers:

1417
1448
1119
0382
1884

When you reach the bottom of the table, you move four digits to the right, read up the page and so on until you have drawn the 125 random numbers needed for your simple random sample. These random numbers correspond to names and telephone numbers in the guest register, and you match them as follows:

Random Number	Name	Phone Number
1417	John Smith	547-8888
1448	Mary Toliver	743-2379
1119	Ralph Redfern	353-7900

Using a table of random numbers ensures a random sample, because the table is constructed so that each of the digits--0,1,2,3,4,5,6,7,8,9 -- occurswith equal frequency (thus meeting the first requirement of randomness), and the digits are in an entirely unpredictable order (independently selected).

After you've used all of the digits in a table of random numbers to produce random samples, you should not use the table again. You can easily obtain additional tables (with different digits) using virtually any computer or even a pocket calculator.

Stratified Random Sample

Stratified random sampling requires an initial division of the population or universe into categories that share some homogeneous characteristic. For example, a population of radio listeners could be stratified into those who listen during the day and those who listen at night.

Continuing the example used in the previous section, imagine that station management is interested in distinguishing the views of those tour participants who saw your mobile facilities with their children from those who saw the facilities alone or in the company of other adults. You can stratify the sampling frame (the guest register) by noting groups with similar surnames. If five Smiths attended a tour together, and if the ages entered in the register show that some members of the group were less than eighteen years old, then you could assume that the Smith family toured the facilities together. To select your sample, you first divide the entries into two categories:

1. Persons touring alone or with other adults.

2. Persons touring with children.

Then you proceed to draw half of the sample from the first category of the sampling frame, using a table of random numbers. You repeat this process with the second half of the sample, using the second category.

Stratified sampling is used frequently in radio audience measurement, to ensure that relatively small groups of particular interest to advertisers are adequately represented in the final survey results. Some of these surveys begin by organizing telephone listings (which provide the sampling frame) in the metropolitan area of the market and listings in the overall geography of the market. Samples are then drawn from each of these areas or strata. In music research, it is common to stratify on the basis of format preference. That is, all listeners to country music are grouped into one stratum, all jazz listeners in another, etc.

Simple Random Sample from a Telephone Directory

Although many researchers agree that telephone directories provide inadequate sampling frames of telephone-equipped households, samples from telephone directories are still widely used. In communities where the rate of population turnover (families moving in and out) is relatively modest and where there are few unlisted telephone-equipped households, a directory sample is efficient and easy to draw.

The procedure requires the use of a table of random numbers to yield a random sample of pages from the residential listing section of the directory (the white pages), as well as a randomly selected column and line for each page selected. This list of pages, columns and lines is then matched with the directory to provide a list of names and telephone numbers for the sample.

Exhibit 3-1 is a worksheet which can be used to guide theselection of a sample from a local telephone directory. In the first column of the worksheet, at the head of the column, there is space to note the first and last page number of pages on which residential listings appear. If the first page of residential listings is page 61 and the last is 382, then you would draw three-digit numbers from the table of random numbers falling in the range of those page numbers (061 to 382).

For each page number drawn from the table of random numbers, you also draw a column number. The number of columns per page for residential listings varies from one community directory to another; the smallest directories feature two columns per page. In this illustration, the number of columns per page is four. Consult the table of random numbers to select a column number for each page number that you've entered on the sample worksheet.

To render the process less time-consuming, you can read down a single column of random digits. If you see a 1 or a 5, you write 1 in the worksheet space provided for column. If you see a 2 or a 6, you write 2; if a 3 or a 7, write 3; if a 4 or an 8, write 4.

The third column of the worksheet calls for column position in terms of millimeters. With a metric ruler, you determine that length of a column in your directory is 215 mm. Therefore, you draw from the table of random numbers line positions between 001 and 215 millimeters. As it happens, some of these line positions will be misleading, since there will be blank lines in some columns, and some listings on the white pages may be businesses rather than residences.

Exhibit 3-1

Worksheet for Random Sample from Telephone Directory

PAGE NUMBER	COLUMN NUMBER	MILLIMETERS DOWN	LISTED NAME & PHONE NUMBER
pages___ to ___ for residential listings	___ no. of columns	000 mm to ___ mm	

It will be desirable to draw additional sets of random numbers from the table for these contingencies. When the worksheet is full, it provides detailed instructions as to where to find the members of the sample in the telephone directory. Several lines from a completed worksheet are presented below.

059	1	107/120	Boyd, Mike	677-3034
095	2	215/097	Vincent, Meri	757-3223
057	2	123/050	Abernathy, William	755-4910

In the first line of the preceding example, random numbers from the sample worksheet told you to turn to page 59 of the white pages, consult the first column and measure down from the top 107 mm. If you do not find an acceptable listing, then go to the line that is 120 mm (the alternative selection) from the top of the column. The listing at 107 mm from the top of the column is for the residence of Mr. Boyd; hence you ignore the alternative 120 mm. You should follow the same procedure in interpreting the random numbers drawn for all members of the sample.

Random Telephone Number Generation -- Samples Including Unlisted Numbers

The shortcomings of telephone directories as sampling frames are well known. Two are particularly troublesome: (1) directories become progressively more out of date every month after issue and (2) directories do not include unlisted telephone households. Depending upon the community involved, telephone directories become outdated at the rate of several percent per month after the month of issue. Some customers of the phone company get new telephone numbers; others move to new homes; some move to the city from elsewhere. This means that samples drawn from telephone directories include some listings for which completed interviews are impossible. Researchers often have to compensate for the resulting rates of error by drawing extra listings into the sample.

The proportion of households equipped with telephones but not listed in the directory also varies from one community to another, but unlisted households continue to grow in number in almost every community. In some communities in the U.S., the majority of telephone-equipped households are not listed. Furthermore,unlisted households

tend to differ from listed households (see Brunner and Brunner, 1971) in terms of the customers' age, education level, marital status and occupation.

To address this problem, survey statisticians have adopted the random telephone number generation sample (see Cooper, 1964; Fletcher & Thompson, 1974). It is based on the procedures used by telephone companies in assigning telephone numbers. Individual telephones are connected to switching centers called exchanges. Each exchange is indexed by a unique telephone prefix. This prefix forms the first three digits of a seven-digit telephone number. Within the 543- exchange, for example, only telephone numbers within the limits, 543-0000 to 543-9999 are possible. To use random telephone number generation in research, you employ a table of random numbers or a computer to sample some of the 10,000 possible telephone numbers within a given exchange.

Consider this example. In a city where you would like to conduct a telephone survey, the local telephone business office informs you that 55 percent of all residential telephone households are unlisted. You decide that a random telephone number generation sample will be essential to obtain a sample representative of the community. By studying the telephone directory, you observe that the following four exchanges are in use for residences in the community: 253-, 456-, 556- and 567-. With a table of random numbers, you draw four-digit random suffixes to combine with these prefixes, resulting in the following sample of telephone numbers:

253-5351	456-5351	536-5351	567-5351
-6253	-6253	-6253	-6253
-5558	-5558	-5558	-5558
-8408	-8408	-8408	-8408
-4001	-4001	-4001	-4001
-5394	-5394	-5394	-5394

The result of this procedure is a random sample of all possible telephone numbers in the community. The sample includes listed and unlisted households in roughly the same proportion as they occur in the community. The sample also includes proportionate groups of recently connected and recently disconnected households.

These features, along with simplicity, have contributed to the popularity of random telephone number generation.

A Random Digit Add-On Sample

One drawback of random number generation samples is that they include numbers which may be either workplaces or residences. As a consequence, interviewers using this sampling technique must ask each interviewee, "Is this a residence?" Although it requires extra time on the part of interviewers, this question is essential.

Another drawback of random number generation sampling is that it includes a large number of unassigned numbers, set aside by the telephone company for new subscribers. It is not unusual for one third of the telephone numbers in a random number generation sample to be unassigned. When added to households in which no one is at home and to numbers which represent businesses rather than residences, interviewers commonly are able to contact study participants in only one of every three numbers sampled. Thus interviewers are often frustrated with the high ratio of attempted calls to completed calls.

Out of this frustration, a modified form of random number generation, called random digit add-on sampling, has evolved. It takes advantage of the process used by telephone companies to assign numbers to new subscribers. Like the phone company's procedure, it assigns numbers in numerical order. If the last number assigned in the 543-exchange was 543-7881, for example, the next number assigned in the same exchange is likely to be 543-7882. Each connected number in an exchange is in fact the center of a cluster of assigned numbers, and each unassigned number is the center of a cluster of unassigned numbers. To apply this technique in research, you arbitrarily envision a group of 100 numbers clustered around each assigned telephone number, with each number in the cluster larger than the central one. Using a table of random numbers, you draw a two-digit number between 00 and 99, and then add that number to a telephone number that you know to be assigned and working. The result is another number in the same cluster, which may recently have been assigned or which may be unlisted. Any number of add-on telephone numbers can be created.

To illustrate this procedure, assume that your station drew a sample of listed telephone households to provide "seeds" for a random digit add-on sample. The goal of the sample is to obtain 100 completed interviews with adults from different households, and your current completion rate is 80 percent; thus you know that you need a sample of at least 125 working telephone numbers. You first telephone households from the directory until you have completed 15 calls. For each completed interview, you take the phone number and add ten two-digit random numbers to it. The result is the following list of 150 telephone numbers:

(a) Completed Number From Directory Sample	(b) Two-Digit Random Number	(a&b) Add-On Numbers
544-3785	09	544-3794
	71	544-3856
	54	544-3839
	82	544-3867
	13	544-3798
	62	544-3847
	27	544-3812
	36	544-3821
	93	544-3878
	49	544-3834
543-4948	11	543-4959
	77	543-5025
	28	543-4976
	29	543-4977
	69	543-5017
	70	543-5018
	35	543-4983

Multi-Stage Random Samples

Combinations of several stages of random sampling are in everyday use in the radio research community. For example, Stage I of a sample might consist of drawing a random telephone directory sample. As in the previous example, interviewers note the numbers of completed interviews, and then (inStage II) add random numbers to those "seed" numbers, producing a random digit add-on sample.

Similarly, the Stage I sample can be generated by using random numbers. Interviewers then note the working numbers in the Stage I sample, and use them as "seeds" for a Stage II random digit add-on sample.

In some cases, it is desirable to draw a sample of a geographic region or of the nation as a whole. To do so, you can obtain from the telephone company a directory of all the working residential exchanges in the country or a specific region. You then can sample these exchanges to produce a relatively short list of exchanges to be included in the survey. The process of selecting exchanges represents Stage I of the sample design. Stage II might be a random telephone generation sample for the selected exchanges.

Each sampling plan has strengths and weaknesses. By mixing sampling procedures in multistage samples, you can use techniques that work well together to meet your research objectives.

NON-PROBABILITY SAMPLES

Statisticians are united in their preference for sampling procedures incorporating random elements, primarily because randomness is a defense against the all-too-human tendency to "fudge" the answers to important questions. There are times, however, when non-random samples are appropriate. Below are a few of the factors that may determine the need for a non-random sampling procedure (Fletcher & Wimmer, 1982, Chapter II).

1. *Cost versus value.* When random samples are more expensive than the research budget permits, then non-probability samples may be considered.

2. *Limited time.* Random sampling is often time-consuming, and deadlines may not permit the time necessary to complete them.

3. *Purpose of the study.* The study's purpose may not require generalizations to the overall population. For example, a researcher may want to know whether one measure in a questionnaire is related to another, or if a set of instructions in a questionnaire is clear.

4. *Amount of error allowed.* Preliminary studies, among others, can tolerate a relatively high degree of error. More precise follow-up studies will correct such error.

Following are descriptions of several non-probability sampling techniques: volunteers, lists, intercept, purposive and systematic samples.

Volunteers

Volunteers elect to participate in a study. The process of self-selection is frequently a matter of serious concern to a researcher, since the reasons for volunteering are not always explicit. Thus volunteers represent a set of feelings and ideas which the research cannot specify, control or measure -- a kind of "wild card" in the

research design process. A common motive for volunteering to provide information is a need for approval; thus volunteers may provide the information which they believe the investigator is seeking. As a result, information provided by volunteers can be misleading. For this reason, using volunteers as study participants makes it more difficult to understand the larger society in which they function (see Rosenthal & Rosnow, 1969).

Lists

Recruiting from lists is similar to using volunteers. To raise money, various organizations sell mailing lists or directories of their members to market research firms. Since the people on these lists know that their cooperation in research projects helps fund their organizations, they are usually eager to participate in studies. Sometimes they serve very well, representing groups of participants that can be assembled for research on very short notice. Samples from lists have many of the same drawbacks, however, as do samples of volunteers. An additional hazard they add is that the people on the lists may know each other. They may discuss their answers among themselves, reducing the range of responses collected in the research. Alternatively, they may inhibit each other, fearing disapproval of their friends if their answers deviate from group standards.

Intercept

In intercept sampling, study participants are interrupted while engaged in some other task. The best known intercept technique is the mall intercept, in which research workers stop people in shopping malls and ask them to complete questionnaires or view commercials.

One advantage of this method is that it enables researchers to collect relatively large samples quickly. In addition, since shoppers are removed from the pressures of home, they are usually willing to spend the time required to answer questions. To some extent, recruiters can determine whether shoppers meet the requirements of the study before introducing them to the research. For example, if the study requires that children participate, the recruiter easily can identify children among the shoppers -- a task less quickly accomplished by phone.

How representative are mall shoppers of their communities? The researcher is obliged to answer this question to establish the credibility of a mall intercept study. In large communities with many malls, each mall has a somewhat different demographic profile. Some malls attract more blue collar workers, divorced parents, or better educated shoppers. Some malls attract shoppers from relatively great distances; others have a primarily local clientele. To help ensure a

representative sample, researchers can establish quotas for different groups of study participants.

Purposive Samples

Purposive samples are made up of those who meet a series of specifications. For example, in order to better serve a long-time sponsor -- Joe's Shoe Store -- the station may investigate the program preferences of that store's patrons. The specifications for participation in such a study might be (1) expenditures of $50 per month on shoes, (2) shoes purchased within the past two weeks, (3) purchases at Joe's Shoe Store within the past six months. To recruit such participants, the station's researcher might review the customer lists of shoe stores in the area (a simple random sample), intercept shoppers near the stores, and offer premiums to purchasers of shoes. Thus this procedure includes other sampling procedures, adapted to the the needs of the purposive sample.

Systematic Samples

In systematic sampling, units are selected at regular intervals from the sample frame. You may sample a telephone directory, for example, extracting every twenty-fifth listing. Most statisticians prefer random to systematic samples because of the potential problem of periodicity, which means that the order or arrangement of the sampling frame influences the degree to which systematic (sometimes called skip interval) sampling can produce samples representative of the population. Thus, if the elements of the list from which you draw are arranged in any particular order, the sample you draw will likely be biased.

AREA PROBABILITY SAMPLING

Sometimes it is desirable to sample people by geographic unit. For example, your station wants to know how the general public feels about traffic reporting. You figure that since traffic problems differ throughout the area, it would make sense to sample listeners by the geographic unit. You divide the community into sampling points, which are discrete geographic locations. Each sampling point is a listed telephone-equipped residence. Although not every telephone-equipped household appears in the sampling frame, the sample is representative of the community because listed households occur with equal frequency in each of the geographic subdivisions.

Another approach to designating sampling points in area probability sampling is to assign a number to each street intersection in the community. Each intersection becomes a sampling point.

With either method, you then use a table of random numbers to draw a sample of sampling points. The next step is to send interviewers to each selected sampling point. The interviewers then follow standard instructions to locate the study participants. Their instructions may read, "Face the North. The first residence to your right is the first residence where you should conduct an interview. After interviewing here, select the residence directly across the street and to the left."

DETERMINING SAMPLE SIZE

For a simple random sample -- or for any stratum in a stratified random sample -- the formula for sample size is:

$$\text{Sample Size} = \frac{3.84p(1-p)}{I^2}$$

where: p = proportion of the sample expected to manifest the quality of interest (i.e. they listen to our station).
I = the size of error in p which can be tolerated by the researcher.

If the value of p cannot be estimated at the beginning of the study, then you should assume that p = .50, since this value always yields the largest suitable sample size. In other words, using p = .50 guarantees an error of no larger than I, no matter what the value for p turns out to be when the sample has been measured.

The value for I is rarely taken to be more than .05, but some studies require smaller figures. Suppose you are conducting a study measuring the difference in audience appeal between your station and your competitor's. You have no idea what value p will take, so you assume p = .50. In a recent study of the same subject, you found that the difference in audience appeal was six percent. You would like to know that a difference of only five percent would be significantly different when tested statistically (hence I = .05). Thus

$$\begin{aligned}\text{Sample Size} &= 3.84[.5(.5)]/[.05(.05)] \\ &= 3.84[.25]/.0025 \\ &= .96/.0025 \\ &= 384\end{aligned}$$

If you decide to collect a stratified sample (male vs. female), then the same reasoning would require a sample of 384 from each stratum. Otherwise, the same level of precision could not be achieved in each stratum.

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FOUR

MUSIC RESEARCH

Music research is necessary primarily because, due to their professional circumstances, radio programmers tend to become less and less like members of the radio audience. In the first place, they tend to notice many aspects of radio music that the majority of fans notice infrequently -- such as surface noise when albums are playing, inappropriate equalization or compression, right-left imbalance, and others. In addition, as a result of their work, radio professionals tend to acquire a tolerance for a wide variety of music. This tolerance develops as a result of radio workers' exposure to different types of music; a programmer at a combined AM/FM station may spin country music discs during the FM program, and contemporary hits on the AM side. The average individual's tolerance for different types of music, on the other hand, increases to some extent with age, but not nearly as much as that of people who work in radio.

As a consequence, radio programmers must constantly check their perceptions of audience tastes against those of the real audience. Musicresearch -- a tradition little more than a decadeold -- applies research methods to the need to assess the musical tastes of radio audiences.

This chapter reviews the procedures and characteristics of themost frequently employed radio music research methods: (1) telephone methods, both call-out and call-in (2) theater and intercepts, and (3) mail surveys. Similar research methods can be used to determine whether a given musical style is appropriate for the audience, but this sort of research will be discussed in a later chapter dealing with station position in the market.

TELEPHONE SURVEY METHODS

Telephone surveys, both call-out and call-in, are among the most popular data collection procedures for contemporary radio music research. In call-out studies, an interviewer at the station or at a contract research firm telephones respondents, plays musical selections to them over the phone, and asks them to evaluate the music. In call-in studies, study participants dial a telephone recording at their convenience to hear musical selections; interviewers collect their opinions later.

One of the telephone survey's greatest advantages is the opportunity for the interviewer to interact with the study participant. Questions may be clarified, and participants can be queried again and again to obtain complete and clear responses. In addition, of the various methods discussed in this chapter, the telephone methods are the most likely to result in samples that are nearly random. As pointed out in the previous chapter, randomness of the sample increases the likelihood that it represents the larger population from which it is drawn.

Another advantage of the telephone survey is that the music is entirely under the investigator's control. Thus telephone research can be used to evaluate new or unfamiliar music. Finally, in contrast to mail surveys, the data for telephone surveys can be collected very quickly.

Telephone methods also have some disadvantages. One is the relatively high cost of completed interviews. Some stations have attempted to deal with this problem by recruiting members of their audience to donate their time as interviewers. Furthermore, many stations need to conduct research on a large number of musical selections -- 100 or more per week. Asking participants to listen to large numbers of musical selections will tax their patience and increase the cost of the study. Thus, with a large study, it is better either to spread the selections over several samples or to study the most familiar parts of the music with a less time-consuming method such as a mail survey.

Telephone Samples

Chapter Three reviewed the various sampling procedures in general use in radio program research. Only a few additional points are necessary here. For most music research, the random digit add-on procedure is preferred. In the first stage of such a project, you develop seed numbers corresponding to working and connected telephones, using a random digit telephone number generation sample or a random

sample of the local telephone directory. Because incidence is low for many radio audiences, it is advisable to identify a pool of qualified study participants with a qualification questionnaire such as the one shown in Exhibit 4-1.

During the week prior to the music research study, interviewers call a large number of householders to locate those who listen regularly to the kind of radio music being studied. Then, when the music survey begins, interviewers can concentrate on presenting music and collecting responses to a pre-qualified sample. As the telephone team works to locate the pool of qualified study participants, they take notes so that the sampling method can be evaluated later. A convenient tool for this purpose is the call record shown at the top of Exhibit 4-1.

A callback policy should be used during this search for qualified study participants. Such a policy might state, "each unanswered telephone number will be called a minimum of three times, each subsequent attempt during a different time of day." It is important to note the time at which study participants indicate their availability for interview. It may also be worthwhile to record the reasons given by respondents for not wanting to participate -- such as desiring a more convenient time to participate, or the recruiting interviewer's lack of persuasiveness.

When the study begins, you should include only one person per household in the sample. You can use a selection matrix to select the adult in the household whose participation optimizes the probability that sex and age of participants will be representative of the population. Exhibit 4-2 shows a selection matrix. To use it, enter the matrix at the column corresponding to the number of adults residing in the household and at the row corresponding to the number of men in the household. At the intersection of appropriate column and row, you will find the correct participant to select for the interview. If the household member indicated is not available for interview, then you should ask for the household member in the box immediately above. At the end of each study, you can examine the structure of the sample in tabulation to determine if the selection matrix is delivering the proper mix of study participants (the mix indicated in research objectives). You can rearrange the order of blocks in the selection matrix as necessary to keep samples representative.

Training of Interviewers

No matter how experienced they may be, interviewers must be trained before each new survey. The purpose of such training is to ensure that interviewers help meet stated research objectives. Aspects of interviewer instruction may include:

Exhibit 4-1

Questionnaire and Worksheet for Recruiting
a Pool of Qualified Study Participants

CALL RECORD Number Called _____

Call Attempt	1	2	3	4	5
Date/Time					
No Answer					
No Adult at Home					
Time for Callback					

Q: Hello. This is Sun Valley Research, and in the next few weeks we are going to be conducting some important research on radio listening in this area. May I ask you a few short questions? I'm not selling anything, and no one will call on you.
IF NO-THANKS AND GOODBYE. REASON GIVEN FOR REFUSAL:

Q: Is there someone in your house who listens to country music on the radio?
IF NO-THANKS AND GOODBYE. IF YES-CONTINUE.

Q: Can you tell me what station they listen to?
PROBE FOR CALL LETTERS OR DIAL POSITION. 1. _____
2. _____
3. _____

Q: Can you tell me the sex and approximate age of the members of your household who listen to these radio stations?

	SEX	AGE
Person 1.		
Person 2.		
Person 3.		
Person 4.		

Q. What do you think would be the best time to call to interview them about matters important to the future of radio in this area?

	DAY	TIME
Person 1.		
Person 2.		
Person 3.		
Person 4.		

Thank you so much for your help.
INTERVIEWER NOTE WHICH OF AGE/SEX COMBINATIONS ABOVE CORRESPONDS WITH YOUR RESPONDENT. _____
REMARKS:

Exhibit 4-2

Interview Selection Matrix

Interviewer: How many adults make their home at this address?

Respondent: _____

Interviewer: How many of these adults are men?

Respondent: _____

Interviewer: May I speak to _____
(NAME THE ADULT INDICATED BY THE SELECTION MATRIX AT THE COLUMN CORRESPONDING TO NUMBER OF ADULTS IN THE HOUSEHOLD AND THE ROW CORRESPONDING TO THE NUMBER OF MEN IN THE HOUSEHOLD).

NUMBER OF ADULTS IN THE HOUSEHOLD

Number Of Men	1	2	3	4
0	Woman	Oldest Woman	Youngest Woman	Youngest Woman
1	Man	Man	Man	Woman
2		Older Man	Younger Man	Younger Man
3			Youngest Man	Older Man
4				Oldest Man

1. Security concerns of study participants. In many communities, householders are aware that criminals sometimes use bogus telephone surveys to target homes for burglary. In these communities, interviewers must understand that some study participants experience this fear. Interviewers should always identify the sponsor of the research, and the sponsor's name should appear in references that a worried study participant might consult -- the telephone directory, listings of the Better Business Bureau, and police files. In addition, interviewers should be prepared to provide a name and telephone number which can be called to verify that they are connected with a bona fide research effort.

2. Interviewers must record responses to open-ended questions in the participants' own words. They must be instructed to do so, and to ask participants to repeat answers if necessary.

3. Interviewers should know in advance the anticipated answers to questions in the questionnaire.

4. If a participant does not understand a question, the interviewer should be instructed to (a) first repeat the the question in its original form, to ensure that the participant hears it correctly, and then (b) if necessary, repeat the question using different wording, drawing upon alternative wordings discussed during the training sessions. Interviewers must never suggest answers in attempting to clarify questions, unless such "priming" is part of the interviewing process.

5. Anticipated interview problems should be discussed in training sessions and presented as role plays. Role playing is easily and quickly understood by interviewers, and helps the researcher determine that instructions have been understood.

6. Interviewers should be aware that questionnaires will be validated by having supervisors call randomly selected study participants to assure that they were indeed interviewed at the time indicated by the interviewer. Supervisors typically validate at least one interview from each interviewer, and in a few

cases they re-interview the study participants to determine how well the interviewers recorded the original information.

MUSIC QUESTIONNAIRES

Questionnaires in music research may be self-administered or administered aurally. Self-administered questionnaires are typically used in mail surveys, intercept studies, and theater studies. Aurally administered questionnaires, in which interviewers work closely with participants, are used in telephone studies and intercept studies.

In addition to varying by method of administration, music research questionnaires differ in the ways that they measure responses. The most frequently used measurement technique is the scaled alternative questionnaire. Less frequently used but highly recommended is the scaled response questionnaire.

Scaled Alternatives

A scaled alternative questionnaire provides a set of phrases corresponding to mutually exclusive categories of reactions to music. For each question, the music research study participant selects one phrase that best describes his or her dominant reaction to the music. Examples of these questionnaire items appear in Exhibit 4-3. Other sets of scaled alternative phrases are in common use. Here are three more.

A)
1. Never heard of it
2. Dislike it strongly
3. Dislike it moderately
4. Don't care
5. Tired of it
6. Like it
7. My favorite record (Routt, 1981, p.276)

B)
1. Like it very much
2. Like it okay
3. No opinion or not sure
4. Don't really care for it
5. Absolutely hate it
6. Like it but tired of hearing it
7. Never heard of it at all. (Balon, 1981, p. 70)

Exhibit 4-3

Music Research Scaled Alternative

Questionnaire Items

A. Self-Administered Version

Song One. Circle the number corresponding with the one phrase which best describes your feelings about the music you have just heard.

1. My Favorite
2. Like it a lot
3. Like it but getting tired of it
4. It's okay
5. Don't like it
6. Really hate it
7. Never really heard it. (Routt et al., 1978)

B. Aurally Administered Version

INTERVIEWER (AFTER MUSIC HAS BEEN PRESENTED): Which one of the following phrases best describes your reaction to the music you have just heard?

1. My favorite
2. Like it a lot
3. Like it but getting tired of it
4. It's okay
5. Don't like it
6. Really hate it
7. Never really heard it

Now which best matches your reactions? Would you like me to read the list again?

C)
1. A favorite
2. Like it
3. Have no opinion one way or another
4. Tired of hearing it on the radio
5. Don't care for it
6. Can't tolerate it. (Warner, 1982, p. 8)

In an unpublished study, Charles Warner (1982) found that different age groups assign different meanings to scaled alternatives in music questionnaires, such as the ones listed above. Working with the set of six scaled alternatives, Warner's study participants ranked them in order of importance. As shown below, participants over age 30 ranked them slightly differently than those under age 30.

Over 30 Years of Age	Under 30 Years of Age
1. A favorite	1. A favorite
2. Like it	2. Like it
3. Have no opinion one way or the other	3. Have no opinion one way or the other
4. Tired of hearing it on the radio	4. Don't care for it
5. Don't care for it	5. Tired of hearing it on the radio
6. Can't tolerate it	6. Can't tolerate it

Although the significance of this difference it is not clear, it does suggest that researchers use caution in comparing the scores of one age group against those of another when using scaled alternative music questionnaires.

In evaluating responses to scaled alternative questionnaires, researchers compile the numbers associated with the phrases chosen by the study participants. In addition, certain indices can be formed by adding scores. Ed Routt (1981, p. 227) has suggested the following indices:

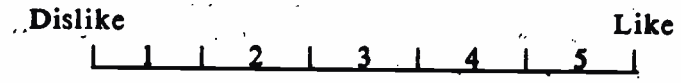
> *Positive Acceptance.* Number of study participants who check "like it" or "my favorite record" divided by the total number of participants in the study.

Tolerance. Number of participants who check off "like it" or "my favorite record" divided by the number of study participants who check off "dislike it strongly" or "dislike it moderately."

Many other indices can be constructed, but they do not necessarily improve the quality of the underlying measures. Any problems in the raw measures will also affect composite indices.

Scaled Response

In a scaled response music questionnaire study, participants indicate their reactions to music along a horizontal line marked in numbered intervals, as in the line shown below.



The principal advantage of the scaled response item technique is its simplicity. It is easy for both interviewers and participants to use, and permits simple presentation of resulting data. In addition, with relatively small samples, this sort of measure may result in a increased ability to detect true statistical differences among responses to various musical selections.

In connection with the preparation of this manual, a study was conducted to develop reliable music questionnaires using scaled response items. Details of the study are presented in Appendix A. The resulting questionnaires appear in Exhibit 4-4. The questionnaires are suitable for measuring responses to both familiar and unfamiliar music.

PRESENTING MUSICAL SELECTIONS BY TELEPHONE

As with intercept and theater studies, telephone studies present musical selections directly to participants using "hooks." A "hook" is intended to be a representative excerpt of a recording. Ideally, the "hook" for a musical selection features the combination of voices or instruments that characterizes the recording. With popular ballads, the parts most frequently selected as hooks are the opening lines of the song and the first line of the chorus. Hooks containing these elements usually require about ten seconds to present. If a song is studied more than once during its tenure on the station playlist, it must be represented by the same hook. If this rule is violated, studies may be measuring reactions to different excerpts of the song rather than

Exhibit 4-4

Scaled Response Questionnaire

for Music Research

A. Self-Administered Version

Indicate by circling a number on each of the scales below your feeling about the music that has just been presented.

This Piece of Music

Dislike — Like

1 2 3 4 5 [Scale 1]

Unfamiliar — Familiar

1 2 3 4 5 [Scale 2]

This Type of Music

Dislike — Like

1 2 3 4 5 [Scale 3]

Unfamiliar — Familiar

1 2 3 4 5 [Scale 4]

This Music for Me

Uninteresting — Interesting

1 2 3 4 5 [Scale 5]

Lacks Energy — Energetic

1 2 3 4 5 [Scale 6]

This Music for Most People

Uninteresting — Interesting

1 2 3 4 5 [Scale 7]

Lacks Energy — Energetic

1 2 3 4 5 [Scale 8]

NOTE: Familiarity = [Scale 2] + [Scale 4]
Liking = [Scale 1] + [Scale 3]
Interest = [Scale 5] + [Scale 7]
Excitement = [Scale 6] + [Scale 8]

Exhibit 4-4 (continued)

B. Aurally Administered Version

INTERVIEWER (AFTER PRESENTATION OF A MUSICAL SELECTION):

1. On a scale of one to ten with one equal to dislike and ten to like, how much do you like this music? _____

2. On a scale of one to ten with one equal to unfamiliar and ten to familiar, how familiar is this music? _____

3. On a scale of one to ten with one equal to dislike and ten to like, how much do you like this type of music? _____

4. On a scale of one to ten with one equal to unfamiliar and ten to familiar, how familiar is this type of music? _____

5. On a scale of one to ten with one equal to uninteresting and ten to interesting, how interesting was the music to you?_____

6. On a scale of one to ten with one equal to lacking energy and ten to energetic, how energetic was this music to you? _____

7. On a scale of one to ten with one equal to uninteresting and ten to interesting, how interesting do you think this music would be to most people?_____

8. On a scale of one to ten with one equal to lacking energy and ten to energetic, how energetic would this music be to most people? _____

FOR FAMILIARITY SCORE ADD 2 AND 4 _____

FOR LIKING SCORE ADD 1 AND 3 _____

FOR INTEREST SCORE ADD 5 AND 7 _____

FOR EXCITEMENT SCORE ADD 6 AND 8 _____

changing audience reactions to the song. The best way to check how well a hook represents a recording is to seek the judgement of the station's music staff.

In producing questionnaires for use in telephone surveys, some researchers record hooks interspersed with announcements giving the number by which each song is identified in the music questionnaires. Other researchers record hooks with only a few seconds of blank tape between each.

Music Call-Out Studies

In a music call-out study, an interviewer telephones study participants from the pre-screened qualified pool, plays one hook at a time over the telephone line, then solicits the participant's reactions to the music. Call-out studies are typically conducted on a continuing basis, with a predetermined number of interviews each week or each two weeks. Such ongoing research makes it possible to chart changing audience reactions to current songs and to new songs being considered for addition to the playlist.

Regular call-out studies are common at stations which base their music programming on the appeal of "currents" (see page 17.) Such stations represent a wide variety of musical styles. These stations realize, however, that new releases cannot be studied in the same way as currents are studied. As discussed in an earlier chapter, familiarity is the essential ingredient in the appeal of popular music. To analyze the potential popularity of new releases, programmers compare the new releases with each other, and with the early research history of currently familiar music. When familiarity scores are low, liking scores fluctuate in unpredictable ways. As familiarity scores increase, liking scores tend to stabilize. By examining the research conducted on currently popular songs when they were first released, researchers can note patterns that signalled likely hits. In the questionnaires shown in Exhibit 4-4, scales labelled interesting/uninteresting and lacks energy/energetic are intended to indicate potential popularity in new music, which may increase in liking as it becomes more familiar.

One limitation of call-out research is the quality of the telephone circuits used to present hooks to study participants. Not only is the sound quality far below that of most radio receivers, but most telephones do not permit stereo reception. If you are convinced that this limitation is disabling, then you should choose against telephone call-out research. On the other hand, it may be argued that the function of a hook played over the phone is not to duplicate the sound of the recording, but merely to remind the participant of the

music. If so, then the telephone call-out method may be acceptable in spite of its limitations.

Music Call-In Studies

In a music call-in study, study participants receive questionnaires in the mail, asking them to call a specified number to hear recorded musical hooks, enter their reactions on the printed questionnaires, and give those responses to an interviewer who calls them at pre-arranged times to collect the information.

There are several advantages to the call-in method. One is that it is very conservative of interviewer time. Suppose that a music call-out study requires eight minutes to present 20 hooks to each participant and collect reactions. This means that a single interviewer can collect information from about 7.5 participants per hour. In the music call-in method, participants hear the hooks and record their reactions on their own time; the interviewer calls later to collect the information. Thus the interviewer spends only two minutes collecting information from each participant for the same 20-hook study, plus an additional minute to explain study procedures at the beginning of each call. Allowing a total of three minutes per respondent, the interviewer can collect information from 20 participants per hour.

Furthermore, many participants are more likely to provide information for a study when they are able to listen to hooks at their convenience. On the other hand, some participants forget to call in, or even answer the questionnaire without actually having heard the hooks. Thus the benefits of the call-in method are, to some extent, purchased at a certain cost: loss of researcher control over the research process. Exhibit 4-5 shows a letter reminding participants to call in, and a form for recording responses.

The call-in procedure suggested above and in Exhibit 4-5 is intended primarily for studying currents, although it can also be used to study recurrents and oldies. Since reactions to oldies and recurrents change much more gradually than reactions to currents, and the portion of a station playlist devoted to oldies and recurrents turns over very little from week to week, these older tunes do not have to be studied as often as currents.

Exhibit 4-5

Example Letter and Questionnaire

for a Call-In Music Study

Tinytown Research
121 Center Boulevard
Yourtown, U.S.A.

Dear Mrs. Brown;

I enjoyed very much meeting you on the telephone today. And I am pleased that you will be helping us with our study of radio music in Yourtown. As I explained, your telephone number was selected scientifically in order to give us a group of study participants who represent the real people of our town. That means that you and each of our participants are extremely important if our studies are to be valid. Please telephone our recording at 778-9999. You will hear on the recording a series of short musical selections, each identified by a number. On the questionnaire enclosed with this letter you will find a series of questions to answer for each numbered musical selection. I believe you will find the procedure very easy to follow, but if you do have questions, feel free to call me at 778-5656.

I will call you Thursday evening, as we agreed, to collect your reactions to the music as you have entered them on the questionnaire. Thank you so much for helping us in our efforts to make better music available to the citizens of Yourtown.

Sincerely,

Susan Suzanne
Research Coordinator

Encl -- Questionnaire

Exhibit 4-5 (continued)

QUESTIONNAIRE

First dial 778-9999 to hear our telephone recording of the short musical selections to which we are asking your reactions. Then give us your reactions to each selection according to the eight scales below:

	Song Number												
This Piece of Music	1	2	3	4	5	6	7	8	9	10	11	12	13
Dislike/Like 1 2 3 4 5													
Unfamiliar/Familiar 1 2 3 4 5													
This Type of Music Dislike/Like 1 2 3 4 5													
Unfamiliar/Familiar 1 2 3 4 5													
This Music for Me Uninteresting/Interesting 1 2 3 4 5													
Lacks Energy/Energetic 1 2 3 4 5													
For Most People Uninteresting/Interesting 1 2 3 4 5													
Lacks Energy/Energetic 1 2 3 4 5													

To which of the following age categories do you belong? (Mark One)
(a) 12-17, (b) 18-34, (c) 35-49, (d) 49-64, (e) 65+

At which of the following times are you likely to be listening to the radio? (Mark All That Apply)
(a) Weekdays 6 am to 10 am, (b) Weekdays 10 am to 3 pm,
(c) Weekdays 3 pm to 7 pm, (d) Weeknights 7 pm to midnight.

Which of the following are your favorites for listening to music?
(a) 94 Q, (b) Warm 100, (c) Z 103, (d) 13 Rock, (e) Y 99 (f) Other:_____

Thanks for your help!!

Closely related to call-in is sending out long playing disks and audiocassettes of music to be studied. Because of the relative expense of preparing and reproducing disks and audiocassettes, such studies can be conducted only a few times per year. Such infrequent study may be sufficient, however, for stations which anticipate little turnover in that part of the playlist devoted to oldies and recurrents. The questionnaire in Exhibit 4-5 can be adapted to this purpose with relatively little change.

INTERCEPT AND THEATER STUDIES

Intercepts and theater studies offer two principal benefits: (1) rapid collection of data from a relatively large group of study participants, and (2) presentation of hooks using state-of-the-art audio technology.

Intercept

An advantage of intercept studies is the relatively small cost per completed interview; participants intercepted at shopping malls are usually very cooperative and willing to participate in a study without payment. On the other hand, samples in these studies cannot be considered random. As noted in the previous chapter, persons intercepted in malls tend to share particular demographic characteristics, such as blue-collar, elderly, single, college-educated and so forth. It may be possible to improve the representativeness of an intercept study by conducting intercepts at different times, during different days, and in different malls. The standard against which sample quality should be measured is the composition of a carefully executed random sample of the population or census data, where it is available.

Conducting an intercept study requires coordination and organization. To be most efficient, recruiters are stationed at the most frequently used entrances to the mall. Recruiters interrupt shoppers who appear to meet the study criteria, qualify them by asking if they listen to the desired radio stations or purchase music of the desired style, and direct them to the area where the study is being conducted. At the data collection area, which may be in front of a store or in a conversation pit, tables are arranged for the study participants. Each is greeted by a research worker, presented with a questionnaire, a pencil and a portable audiocassette player with stereo headset. Participants listen to hooks and complete their questionnaires in a matter of minutes.

Theater Studies

Theater studies are particularly popular in the study of recurrents and oldies. They allow the collection of a large amount of information in a short space of time with a modest commitment of professional research labor.

For the typical theater study, the researcher leases a motion picture theater or large meeting room at a hotel or convention center. Telephone interviewers recruit qualified study participants, asking them to gather at the leased facility at the appointed time. When they arrive, study participants are greeted and asked to complete a short questionnaire assuring that they are indeed qualified to participate in the study. The questionnaire asks, for example, if they are the correct age, listen to the designated radio stations, purchase the designated styles of music. After completing the questionnaires, participants assemble in the theater or meeting room, where the researcher announces the purpose of the research and the nature of the questionnaire. Hooks are presented by a state-of-the-art amplifier and speaker system. After hearing each hook, participants record reactions on self-administered questionnaires.

Theater studies often involve a large number of hooks, as many as 300. With such lengthy studies, researchers must schedule breaks and -- perhaps -- refreshments. Without such amenities, the quality of information provided by participants will deteriorate due to exhaustion or boredom, despite initially high motivation.

Sometimes participants in theater studies are provided with incentives. Incentives are payments (cash, merchandise or gift certificates) which provide an inducement for participants to show up for the study at the appointed time. If an adequate number of participants appear at a theater study without incentives, then it is probably unnecessary to provide incentives for future studies. On the other hand, if too few show up at the study site, a larger incentive may be indicated.

Some researchers are critical of theater studies because the samples are not random. People who feel comfortable appearing at a theater and providing their opinions in a public setting are not thought to represent the average radio listener, who prefers to remain anonymous. There is no easy solution to this problem. The concerned researcher systematically compares the audiences of theater studies with random samples of qualified members of the population in order to determine whether or not there are significant differences between them.

MAIL STUDIES

Mail studies of radio music are popular primarily because of their low cost. It is not necessary to hire interviewers to fold and stuff envelopes. Inexpensive reproduction of questionnaires and bulk mailing privileges make mailing costs moderate.

In the typical mail survey, the questionnaire identifies songs by performer, first line, or most prominent line. A single questionnaire can be used to collect opinions on a relatively large number of songs. Songs can be identified in a variety of ways, such as the ones below.

"Abracadabra" by the Steve Miller Band

The Steve Miller Band, "Abracadabra"

"Abracadabra"

"I'm gonna reach out and grab ya"
(also known as "Abracadabra")
by the Steve Miller Band

The disadvantage to using lists of song titles, lines or performers rather than hooks to identify music is that lyrics are not important to many listeners, nor are titles. Generally speaking, performers are important to fans. Presented with a printed list of song titles, lyrics, and artists, many study participants react primarily to the name of the performer rather than the specific recording being studied. To some extent, these are smaller problems when recurrents or oldies are the subjects of the study.

The most frequently discussed shortcoming of mail surveys is rate of return. In many kinds of mail research, a 50 percent rate of return is considered very good, even though it means that only half of the questionnaires mailed out have been returned. Rates of return in mail surveys vary widely; rates as low as ten percent are not unusual. There are a number of possible research actions which can improve rate of return:

1. Send a second wave of questionnaires to members of the sample who have not returned them in a reasonable period of time.

2. Provide incentives -- discount coupons, small amounts of cash or novelties such as pens and pocket calendars.

3. Before the questionnaire is sent, contact study participants by telephone to solicit a commitment to return the questionnaire.

4. Telephone procrastinating study participants with reminders to complete and return questionnaires.

5. Collect answers to questionnaires by telephone (called telephone retrieval).

When such additional actions are required to attain a reasonable rate of return, however, their cost eliminates the original cost advantage of mail surveys as compared with telephone surveys.

COMPILING AND ANALYZING MUSIC SURVEY DATA

Data is the collective name researchers give to the information provided by study participants. It may be analyzed (or reduced, a statistician would put it) manually or with the assistance of computers.

To analyze music data manually, you should begin by buying the largest columnar pad you can find. Columnar pads are the spreadsheets used by accountants in recording financial transactions. Allow one column for each question of the questionnaire. If the questionnaire includes 8 scales for each of 20 songs, then you will need to use 160 columns. Each row of the columnar pad will contain the responses of one study participant. After filling all of the rows with data, total each column, and then divide each column total by the number of participants in the study to obtain the average scale score for each hook.

Although manual analysis is sufficient for many studies, computers -- mainframes, personal computers, or microcomputers -- permit far more rapid analysis of music study data. Two kinds of software are used for this purpose: (1) statistical applications and (2) spreadsheet programs. The mainframe statistical programs most frequently used for music data are SPSS, BMDP, and SAS. To use them, you can lease time on a mainframe computer, buy a user's guide, and frame the data in the form required by the program. Once you have entered the data into the computer, you can choose from a wide variety of analytical routines, including graphic displays and special tables. Many universities provide leased access to mainframe computers and software, as do contract computer service companies. If you have never used these methods before, you may wish to seek the assistance of an experienced user.

An alternative to the use of mainframe computers is the use of personal computers, most of which can process data from music studies. Most if not all radio stations today have access to such computers, the most popular being the IBM and IBM-compatible brands. Readily available, although somewhat expensive, are scaled-down versions of the powerful statistical analysis programs (such as SPSS/PC) designed for mainframe computers.

In addition, there are relatively inexpensive statistical packages for personal computers that are easy to use and entirely adequate for music study purposes. These spreadsheet programs -- Lotus 1-2-3, Supercalc4, Flashcalc, Excel and many others -- can be programmed to analyze music data. Spreadsheet programs analyze music data in a way that is similar to manual analysis. Columns in the spreadsheet are used for measured reactions to the music, and rows represent study participants. Researchers already familiar with computer spreadsheets will not hesitate to use them for music analysis. If you have never used such spreadsheets before, however, you should learn the software before conducting your study. Appendix B presents part of a report prepared from a telephone call-out study of currents for a local radio station. It includes tables of the kind that are valuable to music programmers.

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FIVE

STUDYING AUDIENCE REACTIONS TO NEWS AND INFORMATION PROGRAMMING

Many listeners cite interest in news and information programming as the main reason for listening to the radio, and for selecting a particular radio station. News and information are central to the appeal of news and news/talk radio formats, and complements music formats. Although music is the main reason people tune in to music stations, news provides the information they need to go about their business and even conduct conversations. If radio stations do not provide news, listeners may switch to other stations to obtain it.

This chapter deals primarily with studies of audience reactions to news and information programming at stations devoted primarily to music programming. News and news/talk stations are dealt with in a later chapter on station formats and positioning.

Because it is an important element of their appeal, music stations need to conduct ongoing research to assess the value of their news and information programming. Principal elements of a research program for news and information programming might include:

1. An overall assessment of audience reactions to the station news and information offerings, including the nature of advertising opportunities provided by such programming.

2. A comparison of news and information features, evaluating their relative contributions to station appeal and to advertising opportunities in station inventory.

3. A continuing assessment of key station audiences' opinions regarding the station's news staff.

Each of these elements makes a distinct contribution to the research program. The first provides a suitable foundation for developing the research program itself, since it functions as an overview of the relationship between audiences and news and information offerings. The second element helps management assess the costs and benefits of different news and information offerings, both those which are generated by the station and those which are purchased from syndication or provided by the affiliated network. The third element helps inform the news staff as to which of their efforts are most rewarding to the station and its audiences. These elements are discussed in greater detail in the following text.

OVERALL ASSESSMENT

To conduct an overall assessment of your station's news and information offerings, you can use a telephone survey such as the one shown in Exhibit 5-1 (Fletcher & Wimmer, 1982, Appendix A). This questionnaire first establishes that the study participant contacted by telephone has been exposed to the station. Then it appraises the pattern of the participant's overall mass media exposure, contrasting newspaper and television consumption with radio listening. Item 7 measures the participant's attitude toward the station's programming. Item 8 classifies participants according to leisure activities, a significant indicator of lifestyle. Item 9 provides a short consumer profile for the station sales manager. The final portion of the questionnaire collects demographic data. These questions are placed at the end of the questionnaire, since such questions are the most likely to elicit refusals to answer from participants. The more questions the participants answer before reaching questions about age and income, the more likely they are to provide information for all of the items.

Note that in Exhibit 5-1, there are numbers in brackets [] following each response. These numbers refer to the columns into which the numbers are entered on a spreadsheet or computer. The numbers in braces {} are codes used to categorize responses. For example, in question 13, a participant reporting an income level of over $20,000 would be listed as a "5" in column #59 of the spreadsheet. In analyzing the data that result from this study, you will want to contrast the news and information elements (7a, 7b, 7f) of Item 7 with that item's total scores (i.e., sum of the scores in 7a - 7g) in order to determine the contribution of news and information offerings to the station's overall appeal. You might also want to contrast the responses to Items 1 through

Exhibit 5-1

A Telephone Questionnaire for Studying the
News and Information Appeals of a Radio Station
in Terms of Overall Station Appeal and
a Variety of Listener Variables

TELEPHONE NUMBER_____

PARTICIPANT NAME_____ NUMBER: [1-3]

CALL RECORD:

	1st Attempt	2nd Attempt	3rd Attempt
DATE	_____	_____	_____
TIME OF DAY	_____	_____	_____
INTERVIEWER	_____	_____	_____

TIME/DATE OF SCHEDULED APPOINTMENT:

REASON FOR REFUSAL:

Hello. I'm _____ calling for a local radio station. We are conducting a survey of radio listeners in this area. If it's all right, I would like to ask you a few questions. (IF NECESSARY, ADD: We are not selling anything, and all the information will be kept strictly confidential.)

1. a. On the average day, about how many hours do you spend listening to your radio
   At home? _____[4-5]
   In your car? _____[6-7]
   At work? _____[8-9]

   (IF PARTICIPANT DOESN'T LISTEN, THEN THANKS AND BYE.)

   b. Yesterday, how much time did you spend listening to your radio
   At home? _____[10-11]
   In your car? _____[12-13]
   At work? _____[14-15]

2. a. On the average day, about how many hours do you spend watching television? _____[16-17]

   b. Yesterday, how much time did you spend watching television? _____[18-19]

Exhibit 5-1 (continued)

3. a. About how many times per week do you read any newspaper?
_____[20-21]

b. How many times did you read any newspaper last week?
_____[22-23]

4. Which of the following sections of the daily newspaper do you regularly read?

National News_____[24]
Local News_____[25]
Business _____[26]
Editorial _____[27]
Entertainment _____[28]
Radio-Television _____[29]
Sports _____[30]

5. What is your favorite station in this area? _____[31-32]

Station A (code 1)	Station B (code 2)
Station C (code 3)	Station D (code 4)
Station E (code 5)	Station F (code 6)
Station G (code 7)	Station H (code 8)
Station I (code 9)	Station J (code 10)
Station K (code 11)	Station L (code 12)

6. Do you listen to your favorite radio station at least fifteen minutes in the average week?
Yes (1)_____[33]
No (2)_____

7. We are interested in knowing why you listen to your favorite radio station, (FILL IN FROM ITEM 5). Please indicate whether you strongly agree, agree, disagree, or strongly disagree with the following reasons for listening.

a. It helps me to find out about the things that are happening in my town and in the surrounding communities._____[34]
Strongly agree (4), agree (3), disagree (2), strongly disagree (1).

b. It informs me of the news events of the day. _____[35]

Strongly agree (4), agree (3), disagree (2), strongly disagree (1).

c. The people on the station sound friendly. _____[36]

Strongly agree (4), agree (3), disagree (2), strongly disagree (1).

Exhibit 5-1 (continued)

d. Each of the people on the station has a good sense of humor. _____[37]

Strongly agree (4), agree (3), disagree (2), strongly disagree (1).

e. The people on the station sound like professionals. _____[38]

Strongly agree (4), agree (3), disagree (2), strongly disagree (1).

f. I trust the people I hear on the station. _____[39]

Strongly agree (4), agree (3), disagree (2), strongly disagree (1).

g. I like the music played by the station. _____[40]

Strongly agree (4), agree (3), disagree (2), strongly disagree (1).

8. We are interested in knowing some of the leisure time activities of the people who live in the community. Please indicate whether you frequently participate in the following activities.

	Yes(1)	No(2)	Refused(9)	
a. Going to theater or films	_____	_____	_____	[41]
b. Sports such as bowling, tennis, golf	_____	_____	_____	[42]
c. Reading books, magazines	_____	_____	_____	[43]
d. Recreational travel/vacations	_____	_____	_____	[44]
e. Working around in the house and garden	_____	_____	_____	[45]
f. Social organizations and clubs	_____	_____	_____	[46]
g. Attending live music presentations, concerts, night clubs, discos	_____	_____	_____	[47]

9. In order to know more about the popularity of certain types of products in our community, we would like to know whether you purchased any of the following items during the past year. Please indicate by answering yes or no to each.

	Yes(1)	No(2)	Refused(9)	
a. An automobile	_____	_____	_____	[48]
b. Auto tires, batteries or accessories	_____	_____	_____	[49]
c. Furniture/carpet/bedding	_____	_____	_____	[50]
d. Major appliances	_____	_____	_____	[51]
e. Home improvement supplies	_____	_____	_____	[52]
f. Lawn and garden supplies	_____	_____	_____	[53]
g. A camera or other photo equipment	_____	_____	_____	[54]
h. Have you opened a savings or checking account in the past year?	_____	_____	_____	[55]

Exhibit 5-1 (continued)

Just a couple more questions. We would appreciate it if you would tell us the following information about yourself.

10. Please stop me when I mention the age group to which you belong.

18-24{1}	_____[56]	50-64{4}	_____
25-34{2}	_____	65+{5}	_____
35-49{3}	_____	Refused{6}	_____

11. How much schooling have your completed?

Did not complete high school{1}	_____[57]
Received high school diploma{2}	_____
Attended some college{3}	_____
Received college degree{4}	_____
Received graduate degree{5}	_____
Refused{9}	_____

12. What is the occupation of the head of your household?

Professional and Executive{1}	_____[58]
Clerical/Sales{2}	_____
Labor (skilled and unskilled){3}	_____
Other (specify){4}	_____
Refused{9}	_____

13. Please stop me when I mention the income bracket to which your family belongs.

Under $5,000{1}	_____[59]
$5,000-$9,999{2}	_____
$10,000-$14,999{3}	_____
$15,000-$19,999{4}	_____
$20,000+{5}	_____
Refused{9}	_____

14. Your sex? (JUDGE FROM CONTEXT OR VOICE IF POSSIBLE)
Male{1} Female{2} Refused{9} _____[60]

Thank you so much for your cooperation. Good-bye.

4 with Item 5, to see how listeners' preferences for different radio stations compares with their overall use of radio and other media. Responses to other questions will help you build a leisure, lifestyle, purchase, and demographic profile of your station's audience.

This questionnaire, of course, is not all-inclusive. You could include a variety of other questions. One variable that may interest you is the "public activities" scale, which measures participants' public activity. This scale has long been used in social science and marketing research. The scale consists of five questions. Research indicates that those with high public activities scores have greater than average interest in the news, and are frequent news consumers. They are likely to tune into live coverage of news events, and are often community "opinion leaders." The items comprising this measure have been subjected to factor analysis and are highly intercorrelated, indicating they tap a single underlying (or latent) variable. Reliability coefficients for this measure are typically above 0.90. (Reliability coefficients range from 0 -- no reliability -- to 1.0 -- perfect reliability.) The items in the public activities scale are (Fletcher, 1977, p. 15):

> Has a member of your household ever been involved in public issues? Yes{1} No{0} ___[1]
>
> Has a member of your household ever written a letter to the editor of a magazine or newspaper? Yes{1} No{0} ___[2]
>
> Has a member of your household ever addressed a public meeting? Yes{1} No{0} ___[3]
>
> Has a member of your household ever been active in support of a local public issue? Yes{1} No{0} ___[4]
>
> Has a member of your household ever worked in a political campaign? Yes{1} No{0} ___[5]

Public Activities = [1] + [2] + [3] + [4] + [5]

Other items that may be included in this survey measure audience satisfaction with news and information reporting and coverage among different media, such as the following questions (adapted from Philport and Fletcher, 1981, p. 103):

> On a typical day, how many news programs do you watch on television? _____
>
> On which television station do you watch most

television news programs? _____

In general, how satisfied would you say you are with news programs on that station? Would you say (ONLY ONE). . .

Very satisfied? {3} _____
Somewhat satisfied? {2} _____
Not at all satisfied? {1} _____
Undecided/Refused {0} _____

Now what about your favorite radio station. What station is that?

_____

How many news programs would you say that you hear on a typical day on that favorite radio station?

_____

In general, how satisfied would you say you are with news programs on that station? Would you say (ONLY ONE). . .

Very satisfied? {3} _____
Somewhat satisfied? {2} _____
Not at all satisfied? {1} _____
Undecided/Refused {0} _____

Now I would like to ask you to rate the job that your favorite radio station does in three particular areas. In each area, I will ask you whether the station is doing an excellent job, a good job, a fair job, or a poor job.

a. Presenting and discussing problems in the local area.

Excellent {4} ___
Good {3} ___
Fair {2} ___
Poor {1} ___
Don't know/Refused {0} ___

b. Covering cultural events in the community.

Excellent {4} ___
Good {3} ___
Fair {2} ___
Poor {1} ___
Don't know/Refused {0} ___

c. Covering local sports.

Excellent (4) ___
Good (3) ___
Fair (2) ___
Poor (1) ___
Don't know/Refused (0) ___

d. Covering local and state economic and financial affairs.

Excellent (4) ___
Good (3) ___
Fair (2) ___
Poor (1) ___
Don't know/Refused (0) ___

e. Covering the condition of roads and traffic during commuting hours.

Excellent (4) ___
Good (3) ___
Fair (2) ___
Poor (1) ___
Don't know/Refused (0) ___

f. Covering official notices during hazardous weather

Excellent (4) ___
Good (3) ___
Fair (2) ___
Poor (1) ___
Don't know/Refused (0) ___

There are many kinds of shows on your favorite radio station. Some people feel there are too many of one kind, not enough of another.

Would you tell me, for each of the following kinds of shows, whether the station has too many or too few in your opinion?

	Too Many (1)	Too Few (3)	Just Right (2)	Can't Tell (9)
a. Local sports	___	___	___	___
b. Local news	___	___	___	___
c. Health news	___	___	___	___
d. State news	___	___	___	___
e. Education News	___	___	___	___
f. Weather	___	___	___	___
g. Traffic	___	___	___	___
h. Cultural events	___	___	___	___
i. Science/nature	___	___	___	___

NEWS AND INFORMATION FEATURES

News and information features can be subjected to research using telephone surveys or in laboratory settings. These two methods are discussed below.

Telephone Studies

For a telephone survey, it is first necessary to qualify participants by assuring that they listen to your station regularly during the dayparts in which the particular features under study are broadcast. Having qualified participants, you can interview them using a questionnaire such as the one that follows.

> Listen to the following list of programs. Will you indicate how much you like each one? The choices for each program are like it, don't like it, can't decide and never heard it.

	Like It (3)	Don't Like it (1)	Can't Decide (2)	Never Heard It (9)	
Downhill Ski Report	____	____	____	____	[1]
Weatherbank	____	____	____	____	[2]
What's Up in Business	____	____	____	____	[3]
Miller-Lea Stock Report	____	____	____	____	[4]
Bulldog Sports	____	____	____	____	[5]
Conversation with the Coach	____	____	____	____	[6]
Central High School Sports	____	____	____	____	[7]
Inside City Hall with the Mayor	____	____	____	____	[8]
Paul Harvey News	____	____	____	____	[9]
Captain Bob Traffic Chopper	____	____	____	____	[10]
Fish and Game Report	____	____	____	____	[11]
Morning Report	____	____	____	____	[12]
Noon Farm News	____	____	____	____	[13]
Today in Ourtown History	____	____	____	____	[14]
Bilingual News	____	____	____	____	[15]

This sort of questionnaire provides information regarding the relative popularity of feature programs, and indicates strong feelings within the station audience. It provides little detail, however, about why people like or dislike particular programs. Furthermore, in assessing the relative popularity of programs, researchers must remember that popularity is not the only reason for selecting a continuing feature to broadcast. Some are offered to meet public service obligations, while others serve special audience segments. Examples of programs designed for special audience segments are the ski report, stock market report, and farm news. By adding questions to the questionnaire, you can determine the extent to which these programs meet the needs of their special audiences.

Laboratory Studies

Laboratory studies, which offer a means of controlling extraneous influences on participants, are useful for studying the details of particular programs -- such as musical theme, order of stories, use of headlines, introduction of guests, use of anchors, etc. In surveys, by way of contrast, participants can only recall the most prominent features of programs, and are often subject to distractions during telephone interviews.

The word "laboratory" brings to mind investigators in white coats with elaborate electronic instruments. For radio research, however, the laboratory may be any quiet, pleasantly furnished room, where researchers present audio messages without extraneous sounds, and study participants answer questions about those messages.

Ideally, participants for laboratory studies would be recruited from random samples of the listening audience, using sampling methods described in Chapter Two. In reality, however, researchers begin with a pool of qualified participants, but lose randomness because some people are unable or unwilling to come to the laboratory at the time scheduled for the study. Those who do agree to participate, however, are likely to represent important parts of the station audience.

What kind of study participants are best for laboratory studies? Generally speaking, each study should use at least two homogeneous groups. Suppose that as station program director, you want to study the drive time news block, comparing the features of our station's (Station A) drive time news with those of your competition (Station B). In conference with the program director, you decide that four audience groups are particularly important:

Men 35 -50 who listen exclusively to Station A during morning drive

Men 35 -50 who listen to both Station A and Station B during morning drive

Women 35-50 who listen exclusively to Station A during morning drive

Women 35-50 who listen to both Station A and Station B during morning drive.

This scheme provides two groups of women, two of men, two groups of exclusives, and two groups who sample both stations. To recruit study participants, you call only members of the qualified pool of participants who meet these specifications. It may be necessary to offer a modest incentive to encourage participation in the study.

A sample consisting of 30 participants in each of the target groups will be sufficient. To achieve the desired sample size, however, you must over-recruit, on the theory that some participants will inevitably fail to appear. Experience is the only reliable guide as to the number of extra participants you will need to invite. As a general rule, males and young persons are less likely to keep their appointments for research studies. Many researchers use the guideline of recruiting 10 percent more women and 20 percent more men than are needed.

Facilities used for laboratory studies must be, above all, easy for participants to locate and reach. Thus you may want to consider renting space in a well-known, conveniently located shopping center or hotel.

Some researchers prefer to test one participant at a time; others prefer to study a group at a time. Either scheme can work. Whether they arrive alone or in groups, however, participants must be greeted immediately upon arrival and re-qualified. You must ask each participant the qualifying questions regarding age, station listened to during drive time, and so on. Then you usher the participant(s) into the laboratory, provide an orientation, play the audiotaped programs you are studying, and administer the questionnaires.

Tapes used in laboratory studies must be prepared and checked in detail. Commercials should be removed. Excerpts should include all of the program's important elements. Each tape should be as short as possible. Although there is no absolute rule as to length, a one-hour program is usually represented by a 20-minute tape; two tapes, representing two hour-long programs, can be studied in one-hour session. Naturally, it pays off to produce the recording using audio reproduction equipment of the best available quality.

If you present more than one taped feature to participants, you should rotate the order of tapes to eliminate any potential "order effect" in participants responses. ("Order effect" causes the first or last presentation to have a greater impact on participants than intervening ones.) The ideal rotation scheme presents tapes an equal number of times in each possible order. For example, to present three tapes-- Tape A,Tape B and Tape C -- to 30 participants, you would use the following scheme:

Tape A, then B, then C -- to five participants
Tape A, then C, then B -- to five participants
Tape B, then A, then C -- to five participants
Tape B, then C, then A -- to five participants
Tape C, then A, then B -- to five participants
Tape C, then B, then A -- to five participants.

If you cannot present the tapes in all orders, then you should at least present each tape in the first and last position an equal number of times.

To evaluate programs in laboratory settings, you can use a questionnaire such as the simple one shown inExhibit 5-2. In this questionnaire, the first two items are open-ended -- that is, they permit participants to give any answer. Open-ended questions are useful to include during a first-time study of a particular program or feature; they help researchers identify participants' feelings about the program. You may also include additional items about specific characteristics of the program:

Theme Music. How appropriate do you find the music played at the beginning and end of the program?

1 2 3 4 5 6 7 8 9 10
Ideal

Would the program be more attractive without the music?
Yes_____ No_____

Headlines. At the beginning of this program the newscasters provided a short preview of the stories in the newscast -- something like headlines.
How valuable did you find this preview?

1 2 3 4 5 6 7 8 9 10
Extremely Valuable

Would the newscast be more effective without this preview? Yes_____ No_____

Figure 5-2

Self-Administered Questionnaire
for Laboratory Study of an Information
Program or Feature

1. What did you like most about the news program you just heard on tape?

2. What did you like least?

3. On a scale from 1 to 10, how would you rate the quality of this news program?

1 2 3 4 5 6 7 8 9 10
High Quality

4. On a scale from 1 to 10, how would you rate the accuracy of this news program?

1 2 3 4 5 6 7 8 9 10
Most Accurate

5. On a scale from 1 to 10, how would you rate the professionalism of this news program?

1 2 3 4 5 6 7 8 9 10
Most Professional

6. Think about your favorite radio station. How would you like to hear this news on your favorite station?

1	2	3	4	5
Not at All		Don't Know		Very Much

7. Check (x) all of the words below which you feel describe this news program.

_____Friendly	_____Interesting
_____Pleasant	_____Expert
_____Useful	_____Up to date
_____Cheerful	_____Ignorant
_____Snobbish	_____Thoughtful
_____Understandable	_____Trustworthy
_____Bored	_____Pessimistic
_____Immature	

Pace. In general would you say this newscast was too fast or too slow?

1	2	3	4	5	6	7	8	9	10
Too Slow				Just Right				Too Fast	

Actualities. During this newscast a number of on-the-spot tape recordings of news events were presented. Would you say these on-the-spot stories were used too often, too little?.

1	2	3	4	5	6	7	8	9	10
Too Little				Just Right				Too Often	

Did the sound quality of these stories make the newscast harder to understand?

1	2	3	4	5	6	7	8	9	10
Not Hard To Understand								Very Hard To Understand	

Would the newscast have been better without them?

Yes_____ No_____

When you analyze the data from items like these, you will want to know which of the participant groups hold each view.

If the musical theme of the news show is well-liked by exclusives but less liked by those who listen to both stations, the show producer might decide to change the theme music. To do so, he or she might study several pieces of music, and search for a theme tolerated by the exclusives and more attractive to those hearing both stations. The goal would be to keep the exclusives while becoming more attractive to those who listen to both stations.

Continuing Assessment of News and Information

The news and information research program must assess the effectiveness of these programs on a continuing basis. Since the success of news and information programming is important to the station's overall appeal and commercial success, management should be involved.

Among the concerns of management will be the ratings; the syndicated audience measurement reports used by regional and national advertisers in determining where to spend their radio advertising dollars. Nearly every manager wants to do well in national and regional spot sales, since these sales augment the revenues of a station sold primarily to local advertisers. It is no surprise that many programming decisions are timed to coincide with the arrival of audience measurement reports.

For this reason, an overall assessment of news and information offerings should be conducted each rating period, providing data that may explain or enhance the ratings. Research also should be conducted on specific elements of news programs -- much more frequently, and especially after programming changes have been made.

With these considerations in mind, the station research staff may develop the following type of research plan for news and information:

1. Surveys to assess the general audience reaction to news and information offerings, to be conducted quarterly (January, April, July, October), in order to help explain the results of quarterly audience measurements.

2. Eight laboratory studies of individual news and information features, to be conducted as required, to improve this programming category and/or assist its producers in developing news programs and features. Each study should be conducted within two weeks of its request by the news staff.

As you continue to work with a particular station's news and information offerings, your research will gradually focus on finer and finer points. With the information gleaned from this chapter, you should have a solid foundation for beginning your ongoing research program.

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SIX

STUDIES OF RADIO PERSONALITIES

Station personalities are one of the most potent audience appeals that can be influenced by station management. Clever, attractive advertising has appeal, but is largely under the control of advertisers and their agencies; similarly, the appeal of music is only partially controllable by management through music research, choice of format, program and music directors. In the long run, the music industry controls the availability of exciting recordings, and networks hold responsibility for the personalities heard in network news and feature programs. Local radio personalities, however, are hired, fired, developed, and nurtured by local management. By this means, local station management plays a critical role in establishing and maintaining the unique sound and presence of the station.

WHAT THE AUDIENCE EXPECTS OF PERSONALITIES

An earlier lesson drew a distinction between desirable characteristics of all radio personalities and those that are unique to an individual station's programming. In review, the key characteristic necessary for the success of all radio personalities is acceptability. Acceptability has a number of components, including tolerance for others' viewpoints, sensitivity to the needs and emotions of others, vulnerability to the opinions of others, sincerity, and openness. Acceptability derives from the role that radio plays in the lives of listeners. Radio is pervasive, present in virtually all leisure and work settings. It is controlled by the individual; a single listener controls a single receiver, whether that receiver is an expensive stereo or a jogger's credit-card sized portable. As a consequence of these factors, listeners adopt an intimacy toward radio personalities. They accept outrageous behavior from those with whom they are intimate --

including radio personalities -- but they also expect genuine interest in their welfare to be exhibited by these personalities.

The second general characteristic listeners expect of radio personalities is competence. Competence in a morning man is not the same quality as competence in a news anchor, but listeners are adept at formulating and applying criteria of competence for both. Similarly, the news director or station manager may have a different notion of a radio personality's competence than does the audience. The station manager, for instance, may assess the competence of the "zoo crew" on the basis of the skill to distinguish between the outrageous and the illegal. For the audience, however, competence in the "zoo crew" means the team's ability to generate the unexpected while conveying an air of light-hearted fun. The station manager may judge a news reporter's competence on the basis of her accuracy, thoroughness, and advanced writing skill, while the public expects sympathy for the victims of disaster and crime, correct pronunciation, and a knowledge of the background of the story.

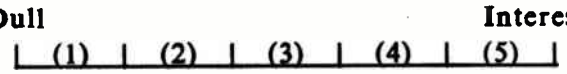
In addition to expecting acceptability and competence, the audience expects radio personalities to be authoritative -- that is, in control of their segments of the radio schedule. In talk shows, for example, when a caller is out of order, the audience expects the host to end the conversation or bring the caller into line. In news interviews, the interviewer is expected to control the direction of the interview, ask pertinent questions, and to persist when direct answers are not received.

Although these audience expectations are nearly universal, they nevertheless permit both personalities and stations to exercise creativity.

RESEARCH ON PERSONALITIES

Audience perceptions of station personalities can be studied either by survey methods or laboratory methods. The process of recruiting qualified study participants for research on personalities is not different from research into other radio-related topics. There are differences, however, in the qualities measured by the studies.

Exhibit 6-1 provides a short questionnaire (adapted from Fletcher & Wimmer, 1981, p. 26) that can be used in a laboratory study after presenting an audiotape of a personality. Other measures can be incorporated into the questionnaire. To measure audience reaction to personalities, many researchers use rating scales, such as the simple one shown on the next page (Fletcher & Martin, 1981, p. 145):



Similar rating scales can be constructed for such qualities as professional/unprofessional, competent/incompetent, sincere/insincere, courteous/discourteous, mature/immature, friendly/unfriendly, and so on.

A systematic and very sophisticated measure uses a series of rating scales-- the semantic differential. The semantic differential was originated as a measure of meaning (see Osgood, Suci & Tannenbaum, 1957; Snider & Osgood, 1969; Fletcher, 1972). Sets of these scales, measuring the meaning of a wide variety of concepts, have been tested extensively in the United States and in other countries. Many of these studies used factor analysis to identify common (latent) factors underlying the scales of the semantic differential. Three factors were repeatedly identified: evaluation, potency and activity. The evaluation factor has been interpreted as equivalent to attitude. Semantic differential scales of the evaluative factor, therefore, can be used to measure attitudes toward radio personalities. Exhibit 6-2 illustrates a self-administered semantic differential measure of listener attitudes toward a personality.

Another useful technique in laboratory studies is paired comparison, in which the study participant is asked to select the preferred of two personalities. Suppose that four personalities -- A, B, C, and D -- are being evaluated by a sample of the station's regular listeners. A and B are familiar to regular listeners; C and D are new voices. Study participants respond to the following sort of questions:

Which would your rather hear announcing the news?

Personality B or Personality C? _____
Personality D or Personality C? _____
Personality C or Personality A? _____
Personality A or Personality B? _____
Personality B or Personality D? _____
Personality D or Personality A? _____

Paired comparison items like those above are analyzed by summarizing the proportion of times each personality is selected, producing what might

Exhibit 6-1

Self-Administered Questionnaire
for Collecting Study Participant Responses to
a Tape Recorded Radio Personality

Personality A

1. What did you like most about this individual as a radio personality?

2. What did you like least?

3. On a scale from 1 to 10, with your favorite personality as 10, how would you rate this personality?
(CIRCLE ONE.)

1 2 3 4 5 6 7 8 9 10
My Favorite Personality

4. Who is your favorite radio personality?

5. Think about your favorite radio station. How would you like to hear this personality on your favorite radio station?

1	2	3	4	5
Not at All		Don't Know		Very Much

6. Mark each of the following adjectives which you think applies to this personality.

friendly	_____	interesting	_____	pleasant	_____
cheerful	_____	ignorant	_____	snobbish	_____
bored	_____	pessimistic	_____	immature	_____

7. What else would you like to tell us about this personality?

Exhibit 6-2

Self-Administered Semantic Differential Measure
of Listener Attitude toward a Radio Personality

INSTRUCTIONS. If you feel that the concept appearing in the box below is very closely related to one end of a scale, you should place your mark as follows:

fair |X| | | | | | unfair

or

fair | | | | | | X | unfair

If you feel the concept is quite closely related to one or the other end of the scale (but not extremely), you should place your mark as follows:

strong | |X| | | | | | weak

or

strong | | | | | | X | | weak

If the concept seems only slightly related to one side as opposed to the other (but is not really neutral), then you should mark as follows:

active | | |X| | | | | passive

or

active | | | | |X| | | passive

The direction toward which you mark, of course, depends upon which of the two ends of the scale seem most characteristic of the thing you're judging.

If you consider the concept to be neutral on the scale, both sides equally associated with the concept, or if the scale is completely irrelevant, unrelated to the concept, then you should place your mark in the middle space:

safe | | | |X| | | | dangerous

IMPORTANT:
(1) Place your marks in the middle of spaces, not on the boundaries:

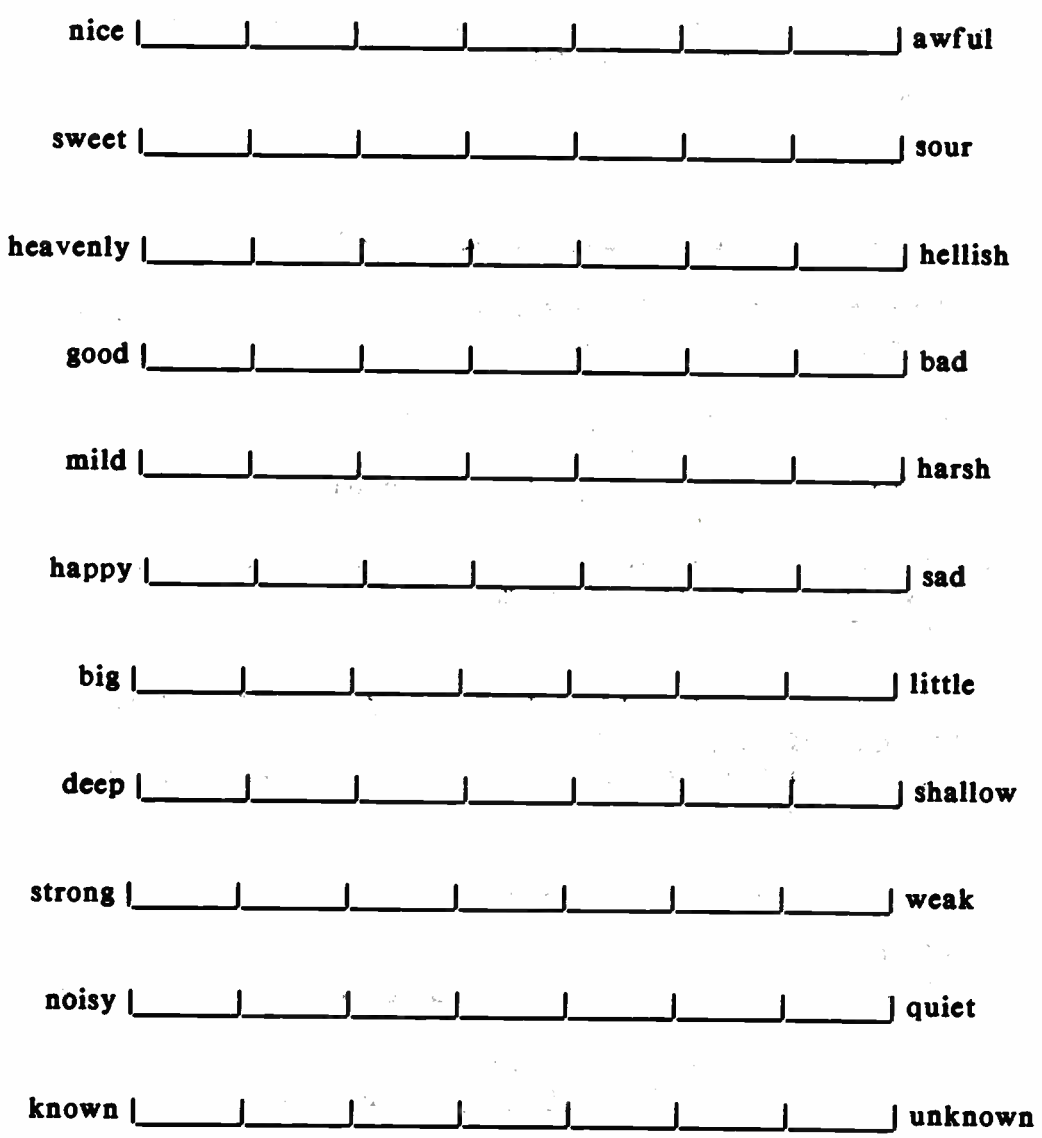
THIS NOT THIS

safe | | | |X| | |X| dangerous

(2) Be sure you mark every scale for every concept -- do not omit any.
(3) Never put more than one mark on a single scale.

Exhibit 6-2 (continued)

Penelope Pettigrew -- Station A Morning News Anchor



be called a "win proportion" for the personality (Fletcher, 1981, pp. 177-181). As the questionnaires are tallied, the preferences are entered into a matrix like the one shown below:

N = 20

	Winning Personality A	B	C	D
A	***	.35	.60	.45
B	.65	***	.75	.50
C	.40	.25	***	.35
D	.55	.50	.65	***
Column Mean or "Win Proportion"	.53	.37	.67	.43

Each cell of the matrix contains a tally of the number of times participants preferred the personality listed at the head of the column over the personality listed to the left of each row. Thus the top right cell notes that nine persons out of 20, or .45, preferred Personality D over Personality A. The fourth cell from the top, in the left column, reveals that 11 participants, or .55, preferred A over D. In the bottom row of the matrix, each column is averaged to produce the "win proportion". The win proportion is the proportion of time a personality is selected over other personalities.

Personalities who are regularly heard on the air can be evaluated using surveys. For example, your station can conduct a telephone interview of regular listeners to ask, "Who is your favorite morning personality?" "Who is your favorite when you listen to the news?"

In mail or face-to-face surveys, participants can compare radio personalities with those from television and print media. Suppose that your station features a home gardening show every Saturday morning. You would like to know if your radio personality has become a valued source of information on gardening. If you can offer evidence to advertisers that your personality is a highly respected source of gardening information, you should be able to sell all availabilities within and adjacent to that show.

You decide to conduct the survey by the intercept method, interviewing shoppers entering and leaving local garden shops during their busiest hours. Interviewers show participants a photograph of the local newspaper's garden columnist, and ask them to rate the columnist's credibility using the following scales:

The columnist can always be trusted to recommend the best varieties of garden vegetables to plant.

Strongly Disagree				Strongly Agree
1	2	3	4	5

The columnist has always provided the information I needed to cope with common garden pests.

Strongly Disagree				Strongly Agree
1	2	3	4	5

The columnist has never failed to mention where additional assistance is available if someone needs it.

Strongly Disagree				Strongly Agree
1	2	3	4	5

The columnist really knows this area and its garden problems.

Strongly Disagree				Strongly Agree
1	2	3	4	5

The columnist must be a very successful gardener herself.

Strongly Disagree				Strongly Agree
1	2	3	4	5

Participants are then asked about your radio station's gardening personality. Any participant who is familiar with your personality is asked to answer the same questions as above, this time evaluating the radio personality. If your radio personality receives a higher win

proportion, the sales manager can joyfully report these results to prospective sponsors.

Personalities may also be studied by qualitative methods such as focus group interviews and depth interviews. These methods are discussed at some length in the next chapter. Still another method of evaluating personalities is to learn what kind of listeners are attracted to each personality. This type of evaluation calls for psychographic measures, which assess listeners' interests, opinions and lifestyles. Once you know that a given personality is particularly attractive to the upscale, well-educated segment of your audience, you can target advertisers interested in reaching this audience. Exhibit 6-3 provides sets of psychographic scales intended to sort audiences according to their attitudes and opinions toward shopping (Eastman, 1978). Exhibit 6-4 provides a set of psychographic items relative to the outlook of listeners (Fletcher and Wimmer, 1981, p. 21).

TESTING PROMOTIONAL MATERIAL

Personalities are often the focus of station audience promotion efforts. In such cases, research can be used to help (1) identify opportunities for exploiting these personalities in the campaign and (2) develop and evaluate the promotional materials for the campaign.

Opportunities for Promotion

Since radio is heard and not seen, much of the audience fascination with radio is ephemeral, dependent on listeners' mental images. For this reason, promotions should present the audience image of a personality rather than the personality's appearance (unless they are one and the same). Audiences may be very disappointed with the actual appearances of their heroes; thus it is much safer and rewarding to use listener images.

Research used to evaluate personalities should aim to uncover their strong and weak points, as perceived by listeners. Let's return to the illustration from Chapter One,that of the newsman becoming the morning talk show host for your news/talk radio station. Your research shows that listeners associate Joe, the newsman, with the accuracy and competence of the station's news, which enjoys a favorable reputation. This perception of Joe, however, means that you cannot promote him as an experienced talk show host. On the other hand, since it has been your practice to associate the morning call-in show with newsworthy topics, Joe's reputation as a newsman may contribute to the news-related appeal of the morning program.

Exhibit 6-3

Scales for Psychographic Shopper Profiles

Leader (Six Items)	Strongly Agree	Agree	Disagree	Strongly Disagree
I like to be considered a leader.	4	3	2	1
I think I have a lot of personal ability.	4	3	2	1
I think I have more self-confidence than most people.	4	3	2	1
My friends or neighbors often come to me for advice.	4	3	2	1
People come to me more often than I go to them for information about brands.	4	3	2	1
I have never really been outstanding at anything.	4	3	2	1
Experimental Shopper (five items)				
I often try new brands before my friends and neighbors do.	4	3	2	1
When I see a new brand on the shelf, I often buy it just to see what it's like.	4	3	2	1
When I find a new brand I like, I usually tell my friends about it.	4	3	2	1
I like to try new and different things.	4	3	2	1
Brand-Name Shopper (three items)				
Nationally advertised brands are usually worth a few pennies more than a store's own brand.	4	3	2	1
A store's own brand is usually just as good as the nationally advertised brand.	4	3	2	1
I keep away from brands I have never heard of.	4	3	2	1

Exhibit 6-4

Psychographic Items for Classifying Study Participants

	Disagree				Agree
1. I enjoy participating in sports.	1	2	3	4	5
2. Radio is a personal medium.	1	2	3	4	5
3. I enjoy watching television.	1	2	3	4	5
4. It's important to dress neatly.	1	2	3	4	5
5. Radio news is best.	1	2	3	4	5
6. I enjoy my job.	1	2	3	4	5
7. It's important to keep well informed.	1	2	3	4	5
8. I listen to radio for the music.	1	2	3	4	5
9. I always watch the late TV news.	1	2	3	4	5
10. A work day is eight hours long.	1	2	3	4	5
11. I consider myself a leader.	1	2	3	4	5
12. I don't like taking chances.	1	2	3	4	5
13. I am concerned about pollution.	1	2	3	4	5
14. I rarely seek advice from friends.	1	2	3	4	5
15. I would like to run for mayor.	1	2	3	4	5
16. Gold prices are important to me.	1	2	3	4	5
17. I always pay cash for my purchases.	1	2	3	4	5
18. I consider myself influential.	1	2	3	4	5
19. My home is my "palace."	1	2	3	4	5
20. A nice neighborhood is important.	1	2	3	4	5

Exhibit 6-4 (continued)

21. I feel best when wearing jeans.	1	2	3	4	5
22. Expensive furniture is important.	1	2	3	4	5
23. I listen to radio for weather reports.	1	2	3	4	5
24. It's hard to find a job.	1	2	3	4	5
25. Music is important in my life.	1	2	3	4	5

To promote Joe as the new morning talk host, you identify two target audiences: (1) those in the audience of the station's morning news block and (2) those who listen to your competitor's morning talk show and occasionally listen to your station's news. Your own morning news listeners can be reached inexpensively with an on-air promotional message delivered during the morning news. To reach the other group, you decide to advertise on the local television news. Your promotion will reach them at a time when they are interested in the news and related topics, emphasizing the news-relatedness of your morning talk show.

Developing and Evaluating Promotional Materials

Research can play a useful role in developing and evaluating your television commercial promoting Joe as the morning talk show host. You can use research methods to test the concept, storyboard, rough and finished stages of the commercial, in order to ensure its maximum success before paying for expensive air time.

A concept is a short summary of the idea and content of a program or message. Since they contain only a few sentences, many of concepts can be presented to study participants during a single study.

A storyboard is the first step in writing a television announcement. It includes a sketch of each frame (camera shot) with the accompanying audio printed in a box below each frame.

A rough is a presentation of the storyboard in which an audiotape, representing the proposed voice-over, is played while the frames are presented. In a live rough, sketches of the storyboard are replaced by a videotape using amateur actors. With a live rough, the audience has

a better idea of the finished product, and can evaluate the flow of action as well as the interaction of audio and video.

Exhibit 6-5 contains a brief self-administered questionnaire that can be used during laboratory studies of station promotional announcements. It is kept as brief as possible so that a number of messages may be presented to the same participants during the study.

It is generally good advice to test all television announcements in their finished form. Although the available production budget may have been spent at this point, the media budget has not. If the announcement in its finished form does not meet the persuasive goals of the campaign, then the media budget can be saved, even though the production budget may have been lost.

To this point, this manual has addressed research techniques employed in the study of radio music, news and information programs and radio personalities-- all of these elements in the appeal which radio stations offer their audiences. In the nextchapter, the overall position or reputation of the station within its market will be explored, as well as the qualitative methods which can play an important part in the overall research program of a successful radio station.

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Exhibit 6-5

Self-Administered Questionnaire for Participant Responses to a Promotional Announcement

1. Have you ever seen another television announcement similar to this one?

   Yes_____ No_____

2. When and where?

3. What was the main idea of this announcement, as you perceived it?

4. Was there anything confusing to you in this announcement?

   Yes_____ No_____

5. If so, what was it?

6. Was there anything hard to believe? Yes_____ No_____

7. If so, what was it?

8. How effective did this announcement seem to you? (CIRCLE ONE.)

1	2	3	4	5
Not at All		Don't Know		Very Much

9. Mark (X) all of the words below which you feel describe this announcement.

convincing _____	original _____	attractive _____
honest _____	memorable_____	typical _____
ignorant _____	deceptive _____	amateurish _____

10. What else would you like to tell us about this announcement?

SEVEN

RESEARCH INTO STATION FORMAT AND POSITION

Consultant Ed Shane (1984, p. 7) has said that radio program management is currently in "the positioning era," meaning that the design of radio formats responds to audience perceptions. George A. Burns of Burns Media Consultants defines positioning this way: "Positioning = attribute of a product or service which is the result of communication about the product or service." In other words, positioning involves both programming to audience vulnerabilities and using audience promotion in communicating about station program offerings.

Qualitative research is used frequently to help assess and improve the market position of radio stations. The two qualitative research techniques most familiar to broadcasters are focus group interviews and one-on-one depth interviews.

Qualitative research is suited to answering such questions as how, why and under what circumstances. In contrast, quantitative research answers questions of how many or how much. Qualitative research can address the issue, "In what ways do radio personalities come to be favorites of radio listeners?" To address such an issue quantitatively, one would ask, "For how many listeners has Personality A become a favorite?"

Market positions of radio stations are closely associated with their identities, as promoted to and perceived by audiences. In a typical small city, for example, one station is known as "the station that sponsors rock concerts," while another promotes itself as "the station that broadcasts the Ourtown Giants baseball games." Station positions are researched (1) to locate market niches, unique positions that are identified with particular stations, and (2) to identify

opportunities for unique positions. After research is used to identify potential market positions, programming and promotion are used to establish stations in those positions. These marketing elements can work together to enhance the value of stations' inventories of advertising opportunities.

Most ofthis chapter deals with focus group interviewing rather than one-on-one depth interviewing. Focus group interviewing involves an invited conversation among carefully selected study participants and a researcher called a facilitator. One-on-one depth interviewing is also a controlled conversation, but involves only one study participant and a researcher called an interviewer. The two techniques involve similar methods of planning and preparation, conduct, and analysis. Although some recent methodological research suggests that one-on-one depth interviews may offer advantages in exploratory studies (Fern, 1982), the two qualitative methods otherwise appear to produce comparable results. For this reason, this lesson discusses focus group interviewing procedures, which can be adapted to in-depth interviewing simply by using a single participant at a time rather than a group.

PLANNING FOCUS GROUP INTERVIEW RESEARCH

Focus group interview research is planned in much the same way as quantitative research (see Fletcher & Wimmer, 1981). This type of planning can be conveniently summarized in seven steps.

Step One. Identify the research objective of the study. Chapter One described a research objective as "a statement connecting the goal of information collection with a specified part" of the station audience.

Step Two. Qualify a pool of study participants.

Step Three. Determine the number and size of homogeneous groups necessary to be interviewed to meet the research objective.

Step Four. Arrange for recruitment of participants, for physical facilities and recordings. Engage a facilitator.

Step Five. Plan the interview sessions, including audiotapes, self-administered questionnaires (if necessary), and the facilitator guide.

Step Six. Conduct the interviews.

Step Seven. Prepare a report.

Research Objectives

Qualitative research methods are well suited for a variety of research objectives, such as the examples listed below:

-- Country music fans believe that our station's greatest strengths are __?__.

-- Classical music fans think that the great weaknesses in our program offerings are __?__.

-- What role do personalities play in the appeal of our all-news station to upscale news-seekers?

-- What are our listeners' expectations regarding our handling of weather emergencies?

If the research objectives include such questions as, "How many listeners feel . . . ?" or "How intensely do listeners feel that . . . ?" then quantitative research should be used instead of, or in addition to, qualitative studies.

Participant Qualifications

To meet research objectives, the researcher must identify the kinds of participants whose insights can respond to the station's need for information. To do this, the researcher first must conduct a critical review of the research objectives.

Suppose that your research objective is the first given above: "Country music fans believe that our station's greatest strengths are __?__." Your earlier audience studies revealed that married males comprise the most loyal segment of your station's audience. Because this group is a favorite target of advertisers, you are particularly concerned with this group's views. In terms of age, most members of this audience are between 25 and 50. You have been planning, however, to expand your loyal audience to include younger males. Based on these considerations, you decide to select qualified study participants with the following characteristics:

All indicate they listen more to your station than to any other.
They listen to radio an average of two hours per day or more (two hours is average for these ages in our market).

Male - married - ages 25 to 34
Male - married - ages 35 to 50
Male - married - ages 18 to 24
Male - unmarried - ages 18 to 24.

Number and Size of Groups

It is nearly always advisable to recruit more than one group for each specific participant qualification, because (1) it is difficult to determine if a group is representative if you see only one, and (2) even in the most careful random sample, there is a chance of recruiting a group that deviates significantly from the norms of population from which it is sampled.

In this study, you decide to recruit two groups for each of the age-based qualifications identified above. All groups will consist of loyal listeners who use radio an average of two or more hours per day. Thus your study participants will comprise the following eight groups:

Men - married - ages 25 to 34 - two groups
Men - married - ages 35 to 50 - two groups
Men - married - ages 18 to 24 - two groups
Men - unmarried - ages 18 to 24 - two groups.

In radio program research, focus group interviews usually consist of groups containing between four and twelve members each. The principal determinants of group size are (1) the facilitator's working preferences, and (2) the size of available facilities. Some facilitators feel more comfortable with small groups; others feel that larger groups are more productive. Furthermore, larger groups are sometimes needed when self-administered questionnaires are used.

Arrangements

Recruiting. You have given yourself a difficult task in recruiting study participants with these qualifications. The incidence, or relative frequency with which these participants are encountered in the population, is low; these groups are estimated to make up less than ten percent of the general population. Because it will take a large number of random calls to locate qualified participants, you will need a number of telephone workers. Based on the experience of others who conduct such research in the community, you anticipate a need to over-recruit by 50 percent for each group. Since you have decided to have ten men in each group, you will need 80 participants; thus you will have to recruit 120 (allowing for 50 percent over-recruitment).

You also decide to promise incentives as an inducement to these men to show up at the appointed time and place for the research. Based on research conducted by similar groups in the community, you select an incentive of 15 dollars for each participant attending a daytime research session, and 35 dollars for each attending a night session. (There is no standard amount for incentives; they are set to produce results.) The incentive program is explained to participants by the telephone workers who recruit qualified study participants with an interview schedule such as the one shown in Exhibit 7-1. The telephone call should then be followed-up with a letter (e.g. Exhibit 7-2).

Note that one of the sessions mentioned in the interview is scheduled for 6 p.m. When discussions are scheduled near the dinner hour, it is common practice to provide a sandwich buffet for participants. During other hours, study participants are usually treated to light refreshments. Of course, bathroom facilities must be available for all sessions. These provisions are collectively referred to as amenities.

Facilities. The most important single feature of the focus group research site is that it be easy to locate. If it is not a landmark in the community, a carefully prepared map or sketch must be provided. Since most focus group sessions are scheduled in the afternoon or evening, study participants may have to cope with traffic and fatigue; neither bodes well for their pathfinding skills. At the site itself, signs must be located strategically to guide participants to their host or hostess.

Special facilities for focus group interviewing can be leased from local market research service firms. Included within the fee will be the cost of amenities and (if desired) recruitment of participants.

Meeting rooms in hotels can also serve as sites for focus group interviews. The principal requirements are that they accommodate the size group expected, either around a large table or in comfortable chairs arranged in a circle, and that they be quiet and free from distractions.

Included within the standard arrangements for most focus facilities will be two audiotaped copies of each group interview. Many facilities also make videotapes. The latter are very expensive and not recommended for most studies; audiotapes are entirely satisfactory for this type of research.

Exhibit 7-1

Telephone Interview Schedule for Recruiting

Qualified Study Participants

INTERVIEWER: Hello, this is (NAME) of the Sun Valley Research Company. We are conducting research on radio stations in our community. May I ask for your help?

(IF NO, TERMINATE AND GOODBYE.)

Are there any men between ages 18 and 50 living at this address?
(IF NO, TERMINATE AND GOODBYE.)

May I speak to him/her? (USE PARTICIPANT SELECTION MATRIX IF MORE THAN ONE MAN LIVES IN THE RESIDENCE.)

(IF NO, TERMINATE AND GOODBYE.)

How many hours do you spend listening to the radio on the average day?

(IF NOT MORE THAN TWO HOURS, TERMINATE.)

To what radio station do you listen most of the time?
(IF NOT OURS, TERMINATE.)

We are conducting another study of radio listening in Ourtown, and we would like to invite you to participate in a two-hour discussion at the Hotel Circle downtown. You will be paid for joining us. We will hold groups on each evening next week. Will you join us?

(IF NO, TERMINATE.)

Are you married? (NOTE.) What is your age? (NOTE.)

Your group will meet on either Tuesday at 6 p.m. or Wednesday at 8:30. We will pay you 35 dollars to participate. Which time is better for you? (NOTE.)

You will receive a note from us with a map, and I will call you again with a reminder. May I have your mailing address? (NOTE.)

Exhibit 7-2

Letter Reminding Study Participant of Time

and Place of Focus Group Interview

Dear _____;

Thank you for agreeing to participate in our group discussion of radio listening.

Your group will be meeting at the Hotel Circle in the downtown area. A map of the exact location is enclosed with this letter. We will meet you in the hotel lobby at 6 p.m. Tuesday evening.

The discussion will last two hours and, and you will be paid thirty-five dollars for your participation.

As the date approaches, I'll call again to be sure everything is clear. Thanks again for your willingness to participate in our study.

Sincerely,

Name
Research Associate

Selecting and Preparing the Group Facilitator. The keys to successful focus group interviewing are selection of the right facilitator and thorough preparation. Although a skilled facilitator makes the work look easy, it is not true that anyone can be a good focus facilitator. The facilitator should not be connected with the station, nor should he/she have any vested interest in the outcome of the research. To be effective, the facilitator should possess a natural empathy for the study participants. He/she should be skilled in reading body language, tone of voice, and facial expression. The facilitator needs also to be a creative person since he or she will need to originate many of the questions in the discussion.

Where can such good facilitators be found? The departments of Communication, Advertising or Marketing at a local college or university may include a faculty member who is an experienced facilitator. Other faculty members, by reason of their qualifications, could readily become facilitators. Many public relations practitioners and tour guides function well as facilitators.

Once engaged, the facilitator must prepare for the study by familiarizing himself with the topics to be explored by the groups. For a study of a radio station format, the facilitator should listen to air checks of each of the station's main program blocks. He should study previous research, and learn any special terms used by the station's fans, such as pop rock, bluegrass, pickin' and grinnin', etc. Below are some questions which a facilitator might use to prepare for a country music station's focus group interview:

- Who are the popular country artists featured on the station?
- Who are the well-known local radio personalities in country music?
- What other country stations are there in the community? How are they different?
- What events or activities in the community promote listening to country music?
- To what other formats or call letters has the public been exposed in connection with the station?

Planning the Sessions

Audiotapes to Play. It is important early in a focus group interview session to anchor the discussion in a shared experience-- an experience typically shared by audiotape -- to establish some common ground. If the facilitator says, for example, "Tell me about your favorite radio station," one participant may recall the favorite heard in the car on the way to the research site. Another participant may recall an all-time favorite, a station heard 20 years ago and no longer on the air. A third may fabricate an ideal radio station, unlike anything on the air now or in the past. The interview begins more effectively, in contrast, if the facilitator plays a recording of a piece of the morning block on Station A, and then asks, "How does this station compare with your favorite?" This opening establishes an anchor by which the facilitator can interpret the contributions of the group. For this purpose, the audiotape should be a condensed recording, in order to maximize the time available for discussion. A condensed recording substitutes hooks for musical selections and intro/outro for full-fledged newscasts.

Paper and Pencil Measures. Self-administered questionnaires are used in focus group interview sessions (1) to collect background information on the participants and (2) to collect responses to audiotapes before the group begins to influence individual participants. Exhibit 7-3 provides an example of a self-administered background questionnaire for focus group interview participants.

Exhibit 7-3

Self-Administered Background Questionnaire

for Focus Group Interview Participants

1. On the typical day, how many hours do you spend listening to the radio? _____

2. On the typical day, how many hours do you spend watching television? _____

3. How many times per week do you read a newspaper? _____

Exhibit 7-3 (continued)

4. What magazines are received in your household?

_____ _____

_____ _____

_____ _____

5. What is your favorite radio station? _____

6. What are your other favorite radio stations?

_____ _____ _____

7. What is your favorite kind of music? _____

8. What parts of the newspaper do you always read?

_____ _____

_____ _____

_____ _____

9. What is your most favorite magazine? _____

10. What is your favorite television show? _____

11. How many years of education have you completed? _____

12. How many people live at your residence (house or apartment)?

_____

13. What is your marital status?

Single, never married ____
Married, living with spouse ____
Separated ____
Divorced ____
Widowed ____

14. What is your age?

_____

15. What is the annual income of your household?

_____

Exhibit 7-4

Self-Administered Questionnaire Collecting

Participant Responses to a Music Audiotape

1. What did you like most about the group of musical selections you have just heard?

2. What did you like least about them?

3. On a scale of one to ten with the music of your favorite radio station as eight, how would you rate this group of musical selections?

1 2 3 4 5 6 7 8 9 10

^

My Favorite Station

4. If you were to hear this music played on your favorite station, at what time of day would you expect it to be played? (CHECK ONE.)

6 - 10 am ___
10 am - 3 pm ___
3 - 7 pm ___
after 7 pm ___

5. If you were to tune your radio to listen to this music, what mood would you expect the music to put you in? (CHECK ALL THAT APPLY.)

relaxing	___	happy	___	sad	___
romantic	___	cheerful	___	nostalgic	___
energetic	___	optimistic	___	alert	___

Any others?

6. What else would you like to tell us about this music?

Exhibit 7-4 shows a self-administered questionnaire collecting responses to an audiotape of station music. Questionnaires like these have two virtues. One is that they provide insight into the words that participants use to describe individual musical selections and types of selections. Another is that they isolate each individual participant's reactions from those of the rest of the group. The comments of other group members often cause a participant to reevaluate a position even before it has been stated. Since one of the objectives of focus group interview technique is to uncover the range of possible reactions of a group, this sort of social inhibition works against the purpose of the research. By using a self-administered response questionnaire before initiating group discussion, the facilitator can determine the extent to which the group discussion represented the range of group responses. As an added advantage, the self-administered response questionnaire can include rating scales or other quantitative measures to complement the qualitative features of the focus group interview technique.

Facilitator Guide. The facilitator guide provides general guidance for the facilitator. It is the principal communication between the study sponsors and the facilitator. Although it provides basic questions to ask the group, the facilitator is expected to depart from the guide in order to collect more complete or precise information.

The guide usually begins with a verbatim introduction to the session, orienting the participants to the conduct and procedures involved in the study. Then, for each major area of investigation, the guide provides specific questions.

The first area of questioning is typically related to the shared experience used to anchor the discussion. After listening to the audiotape and completing a self-administered response questionnaire, the facilitator asks the group an open-ended question such as, "Well, what did you think of that music?" The questions that follow are designed to elicit more information from the group and investigate the group's entire range of feelings. Exhibit 7-5 provides a facilitator guideused for a study of country music radio stations (Fletcher & Wimmer, p. 30).

Conducting the Interviews

In their very thorough manual, The Focused Interview, Robert K. Merton and his associates at the Bureau of Applied Social Research at Columbia University (Merton, Fiske & Kendall, 1956) listed these as characteristics of excellently conducted focus group interviews:

-- Range. The facilitator helps participants express the full range of experience evoked by the topics of discussion.

Exhibit 7-5

Illustrative Facilitator Guide -- Focus Group

Interview Study of Country Music Format

Introduction

We appreciate very much your willingness to come here this evening to help us. The subject of our research tonight is radio -- what you like to hear on radio stations. Each of you was scientifically selected,and our purpose is to get -- as completely as possible-- your feelings about radio and, in particular, your reactions to some radio sounds that we will be playing for you.

But first-- as a means of knowing you better -- we have a short questionnaire as to your background. Please put your name at the top of it, so that we will know who told us what.

(PASS OUT BACKGROUND QUESTIONNAIRE.)

Let me say a word about the microphones that you have seen in the room. They are here so that we'll have a complete record of what you had to tell us. The sponsors of the study don't want to miss any of your ideas.

We have some audiotapes for you to listen to. Imagine this to represent the music you might hear played during some hour on a local radio station. After you hear the tape, we'll have you complete a short questionnaire about it.

(PLAY TAPE. PASS OUT RESPONSE QUESTIONNAIRE.)

Now it is time for us to talk about the tape and about radio in general. In this discussion, the opinions and ideas of each of you are important. We are not looking for anything more than your ideas: there are no right answers to these questions. Don't hold back; your ideas are our reasons for being here. Help the other guy by not hogging the conversation.

MAIN QUESTION: Think back to the music on the tape. How did you feel about it?

PROBE: How did it make you feel?

Exhibit 7-5 (continued)

MAIN QUESTION: When you tune your radio to get this sort of music, what is likely to be going on with you?

PROBES: What are you looking for?

Is this sort of music one of the main reasons that you listen to the radio?

Would you be likely to find music like this on your favorite radio station?

MAIN QUESTION: If you could change something about this set of music to make you like it more, what would the change or changes be?

MAIN QUESTION: Now let's talk for a moment about listening to the radio in general. Think back to the last several times you have listened to the radio. Where were you, and why were you listening?

PROBES: Did you listen in your car? Why?

Were you listening at work? Why?

Were you listening at home? Why?

What are some other times you listen?

MAIN QUESTION: What about the quality of radio service in this area?

PROBES: What stations are there here?

What can you hear on them?

What sort of people listen to each one?

Which of these stations seem to you to "be going places?" Why?

Which ones seem to be on the way down? Why?

-- Specificity. The interview session is conducted so that exact details of listener experiences are shared with the group.

-- Depth. The discussion taps the whole involvement of the participants with the topics of discussion, including their emotions, understanding and attitudes toward the experiences.

-- Personal Context. The interview uncovers participants' earlier experiences and associations with the topics of discussion.

In addition to learning how to manifest these excellent qualities in their work, facilitators need to be equipped with a variety of tools to cope with problems encountered in the conduct of focus group interviews. Some such problems are discussed below.

Rambling. Rambling sometimes occurs when participants are comfortable in the focus group setting and fall into casual conversational patterns. The facilitator must bring the discussion back to the relevant topic. The most direct and effective means of ending a rambling contribution is to summarize the last relevant point made by the participant:

FACILITATOR: "I wonder if we could go back to your earlier comment about how you feel when you get into your truck and tune to country music. You said that you relax when you do that. What is it about the music that is relaxing to you?"

The great danger in allowing a group interview to wander is that participants may lose interest in the purposes of the interview or lose their train of thought while waiting for a rambling to end.

Another important job of the facilitator is to catch the contributions that come to participants' minds but are not voiced in the discussion. To do so, the facilitator ends the discussion of each major topic with a comment of this sort: "We are about to shift to another topic, but I want to be sure I have not missed anything you had to say about this one. Is there more you want to tell me?"

The facilitator also must work toward greater specificity in the discussion, using comments such as the one below:

FACILITATOR: "Earlier, Frank, you told us that lyrics are an important part of country songs for you. But, so far, you haven't told

us anything about the lyrics of the songs we just played on the tapes. How did you feel about those lyrics?"

Reticent. Groups often contain reticent participants, who seem to have nothing to say on any subject; facilitators must encourage these participants to provide information. The experienced facilitator lets the group know that he/she desires comments from each participant, and highlights contributions from reticent individuals to encourage their further participation.

Talkers. The talker "hogs" the conversation, inhibiting the contributions of other participants. The most effective way of dealing with the talker is to interrupt with a summary of his/her last point, and then quickly question another participant:

FACILITATOR: "Let me be sure I have your point, John. You feel that no more than two male vocalists should be scheduled in a row. I wonder who else has this feeling?"

Preparing the Research Report

It is the facilitator who typically prepares the report of focus group interview research. The report must not bestow quantitative status upon qualitative data, which is not the strength of this technique. Even though quantitative information may be collected in background questionnaires and response questionnaires, its purpose is merely is to complement the qualitative results of the group discussion. The results portion of the report summarizes group contributions, first summarizing typical response categories and then presenting responses which were not typical but are included to represent the range of group responses.

The major purpose of the research report is to answer the questions posed by the research objectives. If it does not meet this criterion, the report should be rewritten.

A WORD OF WARNING

Focus group interviews are a great deal of fun for study participants and for researchers as well. It is all too easy for groups to neglect the research objectives while generating warm interpersonal feelings. One of the facilitator's major challenges is to concentrate on the purposes of the study, diligently "milking" each group for the important information it can provide.

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APPENDIX A

THE RELIABILITY AND VALIDITY OF TYPICAL POPULAR MUSIC RESEARCH SCALES

In an earlier manual, "Call-Out Research in Managing Radio Stations" (Fletcher and Wimmer, 1982, pp. 35-6), we listed several sets of alternative response scales used in measuring audience reactions to "hooks," short excerpts of popular songs.

The typical scaled alternative measure consists of a set of phrases associated with various numbers. The study participant is asked to select the one phrase as that best describes his or her feelings about the music just presented. The participant's choice is thereby forced. Below is an example of this sort of scale.

> Which of the following best fits your reaction to the music you have just heard?
>
> (Check one.)
> _____ 1. My favorite.
> _____ 2. Like it a lot.
> _____ 3. Like it, but getting tired of it.
> _____ 4. It's okay.
> _____ 5. Don't like it.
> _____ 6. Really hate it.
> _____ 7. Never really heard it.

The form of this typical music response measure raises a number of questions which can be addressed with methodological research--questions bearing upon the validity, reliability and ultimate usefulness of these measures.

Validity in measurement refers to the extent to which a measure reflects the quality intended. Reliability describes the consistency of a measure -- whether or not it will yield the same results if the test is repeated. The specific validity issues raised include the following questions:

- Are the alternative categories of this measure mutually exclusive? One and only one phrase must describe the study participant's feeling about the music. Participants should not feel that other categories describe their reactions to the music to almost the same degree.

- Are there any latent (or underlying) variables which are important in the participant's feelings, but not specifically included within the alternatives of the measure?

- Do the phrases included in the measure exhaust the range of participants' possible relevant feelings regarding the musical hooks?

Reliability can be assessed by a variety of statistical procedures which result in reliability coefficients. A reliability coefficient of 1.0 corresponds to a perfectly reliable measure -- one that always yields the same numbers when applied to the same task. Few measures in social science research are perfectly reliable; most everyday measures are associated with reliability coefficients less than 1.0. Reliability is a necessary but not sufficient condition for validity. If a measure does not yield the same set of numbers when repeatedly applied to the same situation in the same way, then the measure's validity cannot be established. There are no statistical measures of validity -- this is something the researcher must judge. (See discussion of "construct validity," p. 122).

THIS STUDY

In order to examine the validity and reliability of scaled alternative music measures, an auditorium music study was conducted during March and April of 1986 at the University of Georgia.

Music. Forty "hooks" were recorded on audiocassettes by the music staff of WUOG-FM, a student-operated noncommercial radio station at the University of Georgia. Twenty of these "hooks" were selected from music industry listings for Contemporary Hit Radio; the other half was drawn from lists labeled College Top Forty.

Questionnaires. Two different sets of response measures were incorporated into the questionnaire used in this study.

a. Odd-numbered pages of the questionnaire--corresponding to odd-numbered hooks -- consisted of six items commonly included in scaled alternative music measures. Each of these phrases (contrary to industry practice) was followed by a rating scale, on which participants indicated the degree to which each phrase seemed to describe their feelings about the hook. This six-scale measure took the form indicated in Exhibit A-1.

Exhibit A-1

Scales for Odd-Numbered Hooks

Indicate, by circling the appropriate number, the degree to which the phrases at the left agree with your feelings about the music just played for you.

	Strongly Disagree				Strongly Agree
Familiar	1	2	3	4	5
A Favorite	1	2	3	4	5
Like It	1	2	3	4	5
Tired of Hearing It	1	2	3	4	5
Hate It	1	2	3	4	5
It's Okay	1	2	3	4	5

b. An alternative measure collected participant responses to even-numbered hooks. These scales included the terms "familiarity" and "liking". Familiarity and liking had been identified in an earlier study (Fletcher, 1986) as basic to other reactions to popular music. To increase the reliability of this measure, separate scales were provided for participants' responses to the hook itself and to the general type of music. The resulting scales appear as Exhibit A-2.

Exhibit A-2

Scales for Even-Numbered Hooks

Indicate by circling a number on each of the scales below the degree to which each reflects your feelings about the music just presented.

This Piece of Music

Dislike						Like
1	2	3	4	5	6	7

Music of This Type

Dislike						Like
1	2	3	4	5	6	7

This Piece of Music

Unfamiliar						Familiar
1	2	3	4	5	6	7

Music of This Type

Unfamiliar						Familiar
1	2	3	4	5	6	7

Sample. The sample group was 33.5 % male, with a median age of 19.0 years. Half of the participants listed an adult contemporary station as their favorite; one third favored a contemporary hit radio station.

Procedure. After a short orientation, participants heard one hook played at a time from speakers driven by an audiocassette player at the front of the auditorium. After hearing each hook, they completed a set of measurement scales.

ANALYSIS

Are Alternative Categories Mutually Exclusive?

We assumed that if the alternative categories of the scales were mutually exclusive, they would be uncorrelated when scaled with a rating scale. To test this assumption, we aggregated each scale of each of the two measures across the 20 hooks. Aggregation should cancel any measurement error associated with a particular hook; aggregation across stimuli is consistent with research practice for measures (such as semantic differentials) subjected to correlation analyses. As a result, we obtained six aggregated scale values for each study participant summarizing reactions to 20 odd-numbered hooks, and four aggregated scale values summarizing reactions to 20 even-numbered hooks. We then calculated Pearson product-moment correlations among the ten rating scales. Results are reflected in Table A-1.

Table A-1

Pearson Product-Moment Correlation Coefficients
Among the Ten Aggregated Scales

Scale 1.	Familiarity.
Scale 2.	A favorite.
Scale 3.	Like it.
Scale 4.	Tired of hearing it.
Scale 5.	Hate it.
Scale 6.	It's okay.
Scale 7.	Like/Dislike this piece of music.
Scale 8.	Like/Dislike music of this type.
Scale 9.	Familiar/Unfamiliar this piece of music.
Scale 10.	Familiar/Unfamiliar music of this type.

Scale	1	2	3	4	5	6	7	8	9	10
1	--									
2	.68	--								
3	.51	.63	--							
4	-.05	-.11	-.33	--						
5	-.24	-.28	-.60	.55	--					
6	.23	.35	.57	-.09	-.24	--				
7	.21	.43	.50	-.19	-.36	.32	--			
8	.24	.36	.50	-.21	-.37	.34	.88	--		
9	.63	.47	.59	-.10	-.32	.34	.45	.51	--	
10	.57	.33	.58	-.15	-.33	.32	.36	.49	.78	--

NOTE: All values underscored -- $p < .05$; $N = 236$.

The results in Table A-1 indicated that the alternatives in the two measures of music response are slightly to highly intercorrelated -- not mutually exclusive. As a consequence, they make a poor set of scaled categories for forced choice by participants in our studies. Factor analysis is indicated as an appropriate next step in analysis, both to discover latent variables implied by responses to these scales, and to suggest the degree of overlap, or lack thereof, among the aggregated scales.

Are One or More Latent Variables Hidden by These Scales?

A latent variable is one not readily apparent in the data, but which may exercise simultaneous influence upon several of the variables measured in a study. Factor analysis groups variables according to their intercorrelation with each other, suggesting the set of variables which may indicate a latent variable accounting for the intercorrelations.

We subjected the aggregated scale values from both measures to principal components factor analysis with varimax rotation. This analysis revealed two factors with eigenvalues greater than 1.0, and which accounted for more than ten percent of the variance in the initial correlation matrix. Results are presented in Table A-2.

Table A-2 shows that one latent variable (Factor I, dubbed "Familiarity") is indexed by large loadings (correlations of variables with factors in factor analysis) with three scales from the instrument for odd-numbered hooks (Familiarity, A Favorite, and Like It) and two scales from the instrument for even-numbered hooks (Familiar with This Piece of Music and Familiar with Music of This Type). Another latent factor (Factor II, dubbed "Liking") is indexed by two scales from the instrument for even-numbered hooks.

We also found, in the factor analysis reported in Table A-2, that two of the scales from the instrument for odd-numbered hooks -- Tired of Hearing It and Hate It -- have very low loadings on both of these latent variables. The same variables appear from Table A-1 to be moderately intercorrelated -- more correlated with each other than with any of the other scales. Although future data may show that both of these scales respond to a common latent variable, the data of this study indicate that in the company of scales for the "Familiarity" and "Liking" factors, these variables are not consistent in their relationship to a possible latent variable.

As a consequence of this analysis, it seems prudent to select from the "Familiarity" and "Liking" factors two or three scales which index those factors, and use them in future instruments to collect responses from study participants about popular music.

Table A-2

Factor Analysis of Aggregated Scale Values
for the Ten Scales of Both Measures

Loadings	Factor I Familiarity	Factor II Liking	Communality
Familiarity	.85978	-.00938	.73974
A Favorite	.63410	.19576	.46476
Like It	.65591	.29575	.77999
Tired of Hearing It	-.01930	-.08645	.39244
Hate It	-.23807	-.17422	.73256
It's Okay	.36076	.24508	.22838
Like This Piece of Music	.23943	.83802	.79541
Like Music of This Type	.26432	.93126	.96538
Familiar with This Piece of Music	.76118	.32002	.68761
Familiar with Music of This Type	.66713	.28021	.54180
Eigenvalues	4.37490	1.08794	
Percent of Variance Accounted for	43.7	10.9	

NOTE: Index variables for each factor are indicated by underscoring.

Are These Resulting Instruments Reliable?

Three measures were formulated as a result of the factor analysis: (1) a three-scale measure of "Familiarity" drawn from the instrument for odd numbered hooks, (2) a two-scale measure of "Familiarity" drawn from the instrument for even-numbered hooks, and (3) a two-scale measure of "Liking" drawn from the instrument for even-numbered hooks. Internal consistency reliability coefficients were calculated for each measure, based on the intercorrelations of the scales involved (see Nunnally, 1967, p. 193). The results are given below.

Internal Consistency Reliability Coefficients

Measure	Reliability Coefficients
"Familiarity" Three Scale	.839
"Familiarity" Two Scale	.875
"Liking" Two Scale	.938

Each of these measures has a greater than acceptable level of reliability for this sort of measurement (usually .70 or greateris an acceptable reliability level). It should be noted, however, that this level of reliability can be established only for those instruments using rating scales. A scaled alternative forced choice instrument will have a different reliability, which must be calculated from separate administration of that instrument.

RECOMMENDATION

A rating scale instrument along the lines indicated above appears to have much to commend it both as to reliability and validity. One further means of establishing a measurement's validity is construct validity. Construct validity involves the conformance of a measure to the theory explaining the phenomenon under study -- in this case, public response to popular radio music. A measure has construct validity if it appears to be tapping those behaviors or beliefs which are central to the processes by which music is inculcated into our lives, according to accepted theory.

Both notions of "Familiarity" and "Liking" have considerable construct validity in theoretical explanations about individual use of popular music; furthermore, as mentioned elsewhere, they are specifically identified as important in the academic and scientific literature (see Fletcher, 1986). That literature states that familiarity drives individuals' unique responses to popular music; there can be no popular music response until the music has become familiar to the individual.

While this explanation from the scientific literature adds force of construct validity to the importance of the familiarity scales outlined above, it also points out an important limitation: it is frequently necessary to estimate the public's acceptance and liking of music before it has become familiar. In other words, it is often desirable to study unfamiliar music to determine whether it can become popular when it eventually becomes familiar.

Two additional scales can provide insights as to future popularity. These are "Interest" and "Excitement," as measured in previous studies (see Fletcher, 1986). If included in a measure of listener response to relatively new music, they can provide some insight as to whether familiarity can lead to liking.

These four variables -- Familiarity, Liking, Interest, and Excitement -- have been incorporated into an example measure shown in Exhibit A-3.

ACKNOWLEDGEMENT

Professor Warren K. Agee assisted by providing student participants for the study. Research Associate Luther G. Williams prepared questionnaires and collected data. Assistance in data analysis was provided by Mr. Williams and by Research Associates Philip Auter, Keith Johnson, Chris Nifong, Jeff Wilkinson and Laura Wilkinson.

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Exhibit A-3

Example of Recommended Music Response Instrument

Indicate by circling the number following each phrase below that number which best describes your feeling about the music just presented to you.

<u>This Piece of Music</u>

Dislike						Like (1)
1	2	3	4	5	6	7
Unfamiliar						Familiar (2)
1	2	3	4	5	6	7

<u>This Type of Music</u>

Dislike						Like (3)
1	2	3	4	5	6	7
Unfamiliar						Familiar (4)
1	2	3	4	5	6	7

<u>This Music for Me</u>

Uninteresting						Interesting (5)
1	2	3	4	5	6	7
Lacks Energy						Energetic (6)
1	2	3	4	5	6	7

<u>This Music for Most People</u>

Uninteresting						Interesting (7)
1	2	3	4	5	6	7
Lacks Energy						Energetic (8)
1	2	3	4	5	6	7

NOTES: Familiarity score is sum of (2) and (4).
Liking score is sum of (1) and (3).
Interest score is sum of (5) and (7).
Excitement score is sum of (6) and (8).

APPENDIX B

ILLUSTRATIVE -- TELEPHONE CALL-OUT MUSIC SURVEY "COLLEGE LIST" VERSUS "TOP 40 LIST" AMONG COLLEGE STUDENTS

PURPOSE

The objective of this study was to contrast the performance of "College List" and "Top 40 List" music among regular listeners to our college-oriented FM station.

BACKGROUND

Ours is the only local FM station in a college town in which college students comprise the largest single segment of the community. Approximately 60 percent of residents between ages 18 and 24 are students at the local university. This age group is our station's target audience, and is also the target of local and national advertisers. In order to appeal to the broadest range of these young adults, the station's programming combines two musical styles - the "College List" and the "Top 40 List." Each is a playlist developed by our music director, a part-time student, from tip sheets and trade publications.

Recently, after visiting with our national rep firm, our station manager decided to consider increasing our play of the "College List." By doing so, he thought, the station could strengthen its "college" identity with advertisers who market to this audience.

To determine potential audience reaction to this projected change in the playlist, our program department conducted a call-out music survey, comparing audience reactions to current selections from both the "College List" and the "Top 40 List." The survey was conducted in March of 1986.

PROCEDURE

As a sampling frame, we selected the student directory of the local university, which had been published the previous month. Ninety-five percent of students are listed in the directory.

The survey was conducted by student volunteers, who were members of the university's honorary for broadcast students. They began by drawing 500 listings from the student directory. Of these 375 students were reached (75 percent), and 300 (60 percent) reported having listened to our station within the previous 48 hours and agreed to participate.

Cooperating students listened to hooks from 20 songs, ten drawn from the "College List," and ten drawn from the "Top 40 List." After each hook was played, the participants indicated the degree to which the song was familiar (using a five-point scale with one equal to unfamiliar and five equal to familiar) and how much they liked the song (also a five-point scale with one equal to dislike to five equal to like).

RESULTS

Table B-1 displays the familiarity and liking scores of the 20 music selections included within the survey. Each title is labeled "T" for "Top 40 List" or "C" for "College List."

Each selection had appeared in the station playlist for about the same period of time. Furthermore, selections from the "College List" are played approximately as often as those from the "Top 40 List."

In light of this information, it is difficult to explain the relatively low familiarity scores for the "College List" music. One possible explanation is that "Top 40 List" music is heard from many other sources in addition to radio, including MTV and other music video programs. It is primarily this music which students rent on videocassette. Record purchases of this music are greater as well.

The relationship between familiarity and liking scores was studied separately for the two lists by calculating the Pearson product-moment correlation coefficient. For the "College List" songs, the correlation coefficient was +.841, reaching statistical significance at the .001 level (that is, this result would occur by chance no more than one time in a thousand in exact replications of this study). The correlation coefficient for familiarity with liking among "Top 40 List" music was only +.205, which reaches statistical significance at the .05 level.

Table B-1

Results of a Telephone Call-Out Survey of 300 College Students' Reactions to "College List" and "Top 40 List" Music

Artist/Title	Familiarity	Liking	List
Dire Straits/Walk of Life	4.850	3.603	T
Eddie Murphy/Party All the Time	4.843	3.360	T
Dream Academy/Life in a Southern Town	4.819	3.714	T
John Cougar Mellencamp/Rock in the U.S.A.	4.802	3.715	T
Billy Ocean/When the Tough Get Going	4.801	2.891	T
Aretha Franklin/Freeway of Love	4.796	2.802	T
Glenn Frey/The Heat Is On	4.765	2.578	T
Bruce Springsteen/My Hometown	4.728	2.983	T
Thompson Twins/King for a Day	4.716	3.887	T
Jellybean/Sidewalk Talk	4.292	3.031	T
Big Audio Dynamite/The Bottom Line	1.910	2.743	C
Golden Palominos/Boy (Go)	1.837	2.487	C
Replacements/I Will Dare	1.828	2.476	C
Shrickback/Nemesis	1.789	2.445	C
Suzanne Vega/Marlene on the Wall	1.704	2.438	C
Paul Haig/Heaven Help You Now	1.630	2.128	C
Screaming Tribesmen/Date with a Vampire	1.604	2.159	C
Bangles/Walk Like an Egyptian	1.596	2.549	C
Untouchable/I Spy for the FBI	1.364	1.726	C
Husker Du/Makes No Sense at All	1.357	2.103	C

NOTE: C = College List selection
T = Top 40 List selection

INTERPRETATION

The close relationship of familiarity with liking among "College List" songs suggests that listeners like these songs increasingly as the songs become more familiar. This result would justify a modest increase in play for this list. Increased play from this list should become station policy if later studies confirm this finding -- i.e., if students report liking the songs more, once they have become familiar with them.

The weak relationship between familiarity and liking among "Top 40 List" songs can be interpreted as "burn-out." Obviously, some of these songs had been retained in the playlist too long, and listeners tired of them. This finding suggests that our station should conduct music surveys frequently to deal more effectively with this problem.

APPENDIX C

ILLUSTRATIVE -- INFORMATION AND NEWS IN A ONE COMBINATION TOWN

[redacted]

PURPOSE

The objective of this study is to assess the audience perception of our AM and FM stations' information and news offerings, in terms of quality and promise of commercial success.

BACKGROUND

Our AM and FM stations are the only broadcast outlets in a remote Western city known for tourism and winter sports. Each year, the station conducts a survey to examine all aspects of its position and influence in the community. Without competition from like media, the stations' licensee feels that the station must provide high-quality service to the community. At the same time, however, the stations must operate profitably if the future of broadcast service to the community is to be secure. Thus the annual survey segments the station audiences into groups attractive to local and national advertisers.

PROCEDURE

The survey begins with a random digit generation telephone sample, in which random numbers are added to working telephone numbers in the community. The sample is thus a random sample of all possible working numbers for the community, including recently changed numbers and unlisted telephone households.

Of 1400 numbers dialed, 470 calls (37 percent) were completed to working telephones. Of these, 300 households (64 percent) provided completed interviews.

Classifying questions and news and information items from the questionnaire appear at the end of this appendix.

Data were analyzed at a local university using SPSS version 9 for statistical treatment.

RESULTS

Nature of the Sample

The typical participant in the omnibus survey was 25-36 years old, had lived in the community more than six years, had a college degree or had attended college, had a family income of 20-50 thousand dollars per year, and listened to the radio between three and four hours daily. Nearly half (43.5 percent) were male.

Favorite Station

Radio stations listed as favorites were:

	Percent of Participants (N = 300)
Our FM Station	56.0%
Our AM Station	38.3
Out of Market Stations	5.7

Listening Times

Participants reported listening to their favorite stations at these times:

	Percent of Participants	
Daypart	Our FM	Our AM
Weekdays	(N=167)	(N=114)
6 am - 10 am	65.3%	65.8%
10 am - 3 pm	17.4	27.2
3 pm - 7 pm	7.8	2.6
7 pm - 9 pm	6.6	3.5
9 pm - 1 am	3.0	0

Weekends		
6 am - 10 am	24.4%	25.2%
10 am - 3 pm	23.8	13.0
3 pm - 7 pm	8.9	8.7
7 pm - 9 pm	3.6	2.6
9 pm - 1 am	3.6	0

Programs

Summarized by favorite station these are the reactions of the study participants:

	Percent of Participants	
	Our FM (N=168)	Our AM (N=114)
University Sports		
Like	22.0%	20.9%
Dislike	48.8	13.9
Don't care	16.1	2.6
Haven't heard	11.9	10.4
Issues Before the Public		
Like	64.9	25.2
Dislike	10.7	7.0
Don't care	13.7	1.7
Haven't heard	10.1	13.9
Our Weather		
Like	86.3	36.5
Dislike	4.2	.9
Don't care	7.7	4.3
Haven't heard	1.2	6.1
Business		
Like	25.0	14.8
Dislike	31.0	12.2
Don't care	23.8	4.3
Haven't heard	19.6	16.5
High School Sports		
Like	10.1	47.0
Dislike	9.5	27.8
Don't care	6.0	18.3
Haven't heard	4.2	7.0

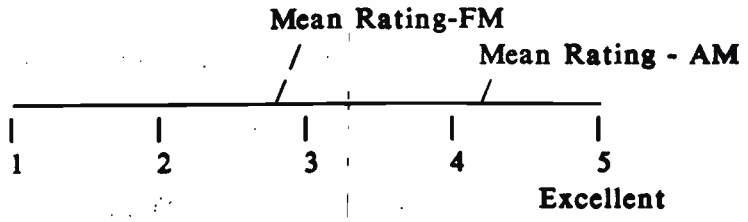
Powder Ski Report		
Like	63.1%	28.7%
Dislike	15.5	8.7
Don't care	16.7	5.2
Haven't heard	2.5	2.1
Rundown on Ski Runs		
Like	61.9	27.0
Dislike	16.7	9.6
Don't care	16.7	6.1
Haven't heard	4.2	5.2
Paul Harvey News		
Like	21.4	84.3
Dislike	5.4	9.6
Don't care	.6	5.2
Haven't heard	2.4	.9
Station Editorial		
Like	17.3	82.6
Dislike	6.5	7.8
Don't care	4.2	7.8
Haven't heard	1.8	1.7
Strictly Natural (Health News)		
Like	82.7	35.7
Dislike	6.0	2.6
Don't care	6.0	2.6
Haven't heard	4.8	7.0

Sports Programming

The majority of our FM station audience (62 percent) feels that we provide the right amount of sports coverage, although nearly a quarter (23.8 percent) feels it is too extensive.

Among our AM station audience, the majority (56.5 percent) also feels that sports coverage is about right. A fourth (23.5 percent) feels that we provide too much sports, and a tenth (10 percent) that we do not provide enough.

As to quality of sports offered, these are the mean scores:

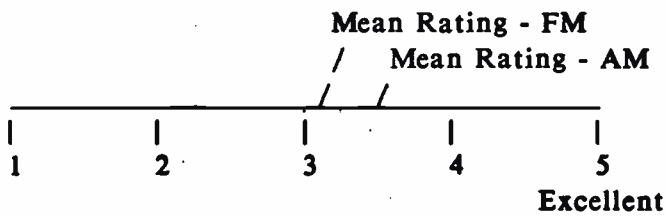


In terms of quality, both station audiences fall near the midpoint of the scale.

News Programming

Over two-thirds of our listeners (69.6 percent) in the FM audience feel that news coverage is about right, while about a tenth (10.1 percent) feel there is too much news, and nearly twice as many (19.0 percent) feel there is too little news.

Among the AM audience, almost as many (65.2 percent) feel that news coverage is about right. Only seven percent feel there is too much news, and more than a fourth (27.8 percent) feel there is not enough. As for news quality, audiences awarded these mean ratings:



The AM audience evaluation has a somewhat higher rating for news quality. The FM audience rated news quality near the midpoint of the scale.

Years of Residence

AM preference tends to be more pronounced among long-time residents.

	Percent of Participants	
	Our FM (N=168)	Our AM (N=114)
Less than 1 year	9.5%	7.8%
1-5 years	27.4	19.1
6-10 years	31.0	17.4
10+ years	32.1	55.7

Age

FM preference is strongest among baby-boomers (ages 25-36).

	Percent of Participants	
	Our FM (N=168)	Our AM (N=114)
18-24 years old	57.7%	42.3%
25-36 years old	75.3	24.7
37-45 years old	41.7	58.3
46+ years old	32.7	67.3

Education

The AM audience includes fewer persons with college degrees.

	Percent of Participants	
	Our FM (N=168)	Our AM (N=114)
Less than high school	2.4	5.2
High school diploma	14.9	20.9
Some college	33.3	43.5
College degree	37.5	21.7
Graduate school	11.3	7.8

Income

In relative terms, the AM audience is as affluent as the FM audience or a little more.

	Percent of Participants	
	Our FM (N=168)	Our AM (N=114)
$10,000 or less	7.1	4.3
$10,000 - $20,000	33.3	23.5
$20,000 - $50,000	46.4	53.9
$50,000 +	5.4	6.1

Income by Listening Time

Percent of Income Group in Audience
FM Audience
(AM Audience)

Listening Time	$10,000 or less	$10,000-$20,000	$20,000-$50,000	$50,000 or more
6am-10am	58.3% (80.0)	80.4% (66.7)	73.1% (71.0)	66.7% (71.4)
10am-3pm	6.1 (40.0)	37.5 (63.0)	46.2 (46.8)	55.6 (71.4)
3pm-7pm	12.8 (0)	21.4 (14.8)	24.4 (19.4)	33.3 (0)
7pm-9pm	13.0 (0)	12.5 (7.4)	15.4 (3.2)	11.1 (0)
9pm-1am	16.7 (0)	39.3 (0)	3.8 (0)	11.1 (0)

NOTE: Columns do not add up to 100 percent, because participants check off all times at which they listened. The figures in the columns should be interpreted, "This percent of the audience in this income category is available at this time."

An important feature of the table above is the audience strength at midday, particularly on the AM station. This would seem to represent a unique opportunity for advertisers wishing to reach upscale radio audiences.

RECOMMENDATIONS

1. A subsequent study to examine potential ways to improve the quality of news as perceived by the audience.

2. Sales and promotion efforts to exploit station strengths among upscale audiences during midday.

Enclosure 1 - Relevant Items from Station Omnibus Survey Questionnaire

1. **How many hours do you listen to radio during a typical day?**

   _____

2. **What radio stations do you listen to the most?**

   _____ _____ _____

3. At what times are you most likely to be listening to your favorite station?

____
____
____

4. On the weekends, what times are you most likely to be listening to the radio?

____
____
____

5. I am going to read to you a short list of radio programs heard in this area. For each program, can you tell me

(1) that you like it,
(2) that you dislike it
(3) that you don't care about it
(4) that you haven't heard it?

University Sports	1	2	3	4
Issues Before the Public	1	2	3	4
Our Weather	1	2	3	4
Business	1	2	3	4
High School Sports	1	2	3	4
Powder Ski Report	1	2	3	4
Rundown on Ski Runs	1	2	3	4
Paul Harvey News	1	2	3	4
Station Editorials	1	2	3	4
Strictly Natural (Health News)	1	2	3	4

6. On the station you listen to most, do you feel the coverage of the news is . . .

too much___
not enough___
the right amount____
no opinion___

7. On a scale of one to five (with five being excellent), how would you rate the quality of radio news you hear?

1 2 3 4 5 (Excellent)

8. On the station you listen to most, do you feel the coverage of sports is . . .

too much___
not enough___
the right amount___
no opinion___

9. On a scale of one to five (with five being excellent), how would you rate the quality of local radio sports?

1 2 3 4 5 (Excellent)

10. How many years have you lived in our community? _____

11. Which of the following age groups best describes you?

18-24___
25-35___
36-45___
46+___

12. Which of the following educational levels best describes you?

did not complete high school ___
received high school diploma ___
attended some college ___
received college degree ___
received graduate degree ___
refused___

13. Into which of the following groups would you say your family falls?

$10,000 or less ___
$10,000-$19,999 ___
$20,000-$49,999 ___
$50,000 or more___
refused___

14. What is your gender?

female___
male___

APPENDIX D

ILLUSTRATIVE -- FOCUS GROUP INTERVIEW STUDY -- NEWS/TALK RADIO IN OURTOWN

[redacted]

PURPOSE

This study examines the relative positions of the daytime programming of two news/talk radio stations in Ourtown - Station A and Our Competition. Specifically, it explores among Station A listeners between ages 35 and 55:

1. Perceptions of the morning and afternoon talk show hosts.
2. Perceptions of the morning drive and noon news blocks.

PROCEDURE

Four focus group interviews were conducted in the facilities of a market research service firm in Ourtown. Study participants were recruited by cold random telephone interviews conducted by the market research service firm. Each study participant met the following criteria:

a. Listens to AM radio at least an hour daily.
b. Listens most to Station A.
c. Also listens to Our Competition.
d. Lives in a household where no member works in advertising, print or broadcast media.
e. Has not participated in a market research study of any kind in the previous six months.

Four groups of size ten were recruited, two groups of women, two of men. Each participant received a cash incentive payment.

During the interview, each group heard four audiotape excerpts of the morning and afternoon hosts on each station and four audiotape excerpts of the morning and noon news blocks of each station. After hearing each audiotape, participants completed a self-administered questionnaire about the tape, and then engaged in group discussion. Each group session was recorded on audiotape for later analysis.

RESULTS

The Sample

The majority of participants in all groups fell in the age range of 35 to 49 and had completed four or more years of college education. Most lived in households of three or four members. More than half reported annual household incomes of more than $30,000. Nearly all were married.

Participants completed a background questionnaire upon their arrival at the focus group facility. In it they rated (on a five-point scale) their agreement with statements reflecting lifestyle and perceptions of radio. The highest levels of agreement were recorded for these items:

"I enjoy my work."
"I enjoy hearing listeners call in on the radio."
"I listen to the radio for weather reports."
"A nice neighborhood is important."
"Listeners should express their opinions on the radio."

These responses indicated participants to be public-spirited and oriented toward talk radio.

Participants reported that they read an average of four or five daily newspapers per week, more than three magazines per month, and view television between two and three hours per day. The women, on the average, reported that they listen to radio more than four and a half hours per day. Men, on the average, reported less listening time -- about three hours per day.

Talk Show Hosts

Participants in group interviews described their ideal talk show host as one who is courteous, allowing each caller to express a point of view, assisting the caller who is having difficulty in clearly expressing an idea, and giving each new idea fair consideration. At the same time, the ideal host has and expresses personal opinions.

On the whole, Station A hosts were identified with this ideal. Table D-1 shows the results of self-administered questionnaires completed by participants after hearing each talk show host. Table D-2 shows the adjectives checked by participants as appropriate to their perceptions of the hosts.

News Programs

In rating the news blocks of the two stations for morning drive and noon, women rated both blocks on Station A well above the same blocks on Our Competition. Men rated the morning drive and noon news blocks of Our Competition higher (although the difference in the case of morning drive does not reach statistical significance). Table D-3 reports these ratings, while Table D-4 shows the proportion of participants who checked each adjective describing the various news blocks.

In group interviews, participants said that news coverage and accuracy were virtues of Station A news; they commented favorably upon the high quality of news broadcast by the station during natural disasters. They criticized Our Competition for poor local news coverage on weekends and for inaccurate weather announcements. A number of participants volunteered that the audio quality of news coverage on Station A was not as high as that of Our Competition. Probing indicated that these participants were responding to the greater number of actualities used by Station A. Apparently some of these actualities suffer from poor audio quality.

INTERPRETATION

Talk show hosts of Station A are more favorably perceived than those of Our Competition and closer to the ideal hosts of these group interview participants. This perception can be exploited by our station in promotional activities.

Our station's morning drive and noon news blocks enjoy a more favorable reputation than that of Our Competition, but we should devote some attention to improving the audio quality of the actualities we include in news programming.

Table D-1

Recognition and Ratings of Talk Show Hosts

	Women (Men)			
	Our AM Host	Our PM Host	Their AM Host	Their PM Host
Proportion of participants who could name host	.667 (.500)	.238 (.500)	.952 (.650)	1.000 (1.000)
Mean on a scale of 1 to 10 "How would you rate this personality against your favorite?" (highest score = 10)	7.000 (6.250)	6.560 (7.350)	7.810 (6.050)	5.290 (5.450)
Mean on a scale of 1 to 5 "How would you like to hear this host on your favorite station?" (highest score = 5)	3.950 (3.100)	3.630 (3.550)	4.240 (3.530)	2.860 (2.950)

Table D-2

Proportions of Participants Who Checked Each Adjective for Each Host

	Proportion of Participants Women (Men)			
	Our AM Host	Our PM Host	Their AM Host	Their PM Host
Friendly	.714 (.750)	.714 (.850)	.667 (.550)	.095 (.300)
Cheerful	.429 (.350)	.571 (.700)	.762 (.500)	.095 (.300)
Bored	0 (.100)	0 (0)	0 (.100)	.286 (.350)
Interesting	.762 (.600)	.571 (.750)	.905 (.550)	.476 (.550)
Ignorant	0 (0)	0 (0)	0 (.100)	.143 (.350)
Pessimistic	.048 (.150)	0 (0)	0 (.250)	.381 (.400)
Pleasant	.619 (.550)	.524 (.900)	.714 (.550)	.143 (.250)
Snobbish	.190 (.250)	.048 (0)	.095 (.300)	.381 (.600)
Immature	0 (0)	0 (.050)	0 (0)	.333 (.350)

Table D-3

Ratings of Morning Drive and Noon News Blocks on Station A and on Our Competition

Mean Ratings

	Women (Men)			
	Our Morning News	Our Noon News	Their Morning News	Their Noon News
Mean on a scale of 1 to 10 with 10 = "My Favorite"	8.19 (7.55)	7.62 (7.80)	7.43 (7.35)	7.35 (7.30)
Mean on a scale of 1 to 5 "How would you like to hear this on your favorite station?" (Highest = 5)	4.43 (3.80)	4.10 (4.10)	4.12 (3.75)	4.05 (3.75)

Table D-4

Proportion of Participants Who Checked Each Adjective for Various News Blocks

Proportion of Participants

Women (Men)

	Our Morning News	Our Noon News	Their Morning News	Their Noon News
Friendly	.571 (.650)	.333 (.750)	.810 (.850)	.667 (.750)
Expert	.476 (.500)	.619 (.500)	.381 (.550)	.714 (.550)
Cheerful	.333 (.550)	.238 (.400)	.619 (.700)	.238 (.400)
Thoughtful	.143 (.450)	.143 (.350)	.095 (.350)	.048 (.300)
Bored	0 (.100)	.048 (.050)	.095 (.050)	0 (.050)
Interesting	.762 (.450)	.571 (.750)	.619 (.550)	.667 (.700)
Useful	.667 (.800)	.667 (.600)	.476 (.550)	.476 (.600)
Understandable	.667 (.750)	.810 (.600)	.571 (.400)	.571 (.450)
Up-to-Date	.762 (.750)	.714 (.900)	.619 (.550)	.905 (.700)
Trustworthy	.238 (.400)	.286 (.550)	.238 (.450)	.286 (.300)

INDEX

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