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How Actualities Affect Radio News Recall: A Study Of Dramatic Versus Non-Dramatic Actualities

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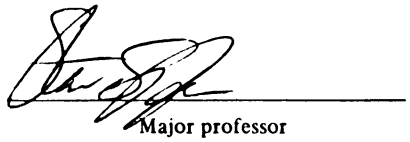

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HOW ACTUALITIES AFFECT RADIO NEWS RECALL: A STUDY OF DRAMATIC VERSUS NON-DRAMATIC ACTUALITIES

By

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ABSTRACT

HOW ACTUALITIES AFFECT RADIO NEWS RECALL: A STUDY OF DRAMATIC VERSUS NON-DRAMATIC ACTUALITIES

By

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Most news organizations emphasize the gathering, production, and broadcast of actualities in radio newscasts despite research which indicates the inclusion of these audio inserts hinders news recall and is less appealing. This study examines the current use of actualities, defines two primary types of actualities (dramatic and non-dramatic), and measures difference of listener perception of two forms of audio inserts.

An experimental study using two versions of a one-minute radio news update was used to measure the listeners' ability to recall informational content and the news update's degree of appeal. The t-test and z-standard score tests were used to determine statistical significance.

Overall, it appears that differing types of actualities have little or no effect on the listeners' ability to recall informational content or on the degree of newscast appeal. As this study discovered, it may well be radio news journalists place more value and emphasis on obtaining dramatic-like actualities than is necessary.

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I. Introduction

Most news organizations emphasize the gathering, production, and broadcast of actualities in radio newscasts. The actuality, an actual voice of a newsmaker, spokesperson, official, or witness, is inserted into the story to supplement the script of the news anchor. Radio News Handbook author David Dary defines actuality as "a portion of a speech, interview, statement, news conference, or some other event which almost always is recorded and included within the body of a newscast." This production technique is used extensively both on the national and local levels. Actualities are used to provide credibility and variety to a newscast.

The authors of Modern Radio Production claim actualities add to the variety of a radio newscast and maximize impact. Many radio handbooks, production manuals, and other texts describe how the use of such audio inserts add variety, pace, excitement, proximity, and believability to a radio newscast (Bittner, 1981; Hall, 1986; Hewitt, 1988; Hoffer, 1974). Despite these claims and descriptions of the use and purpose of actualities, there is some question concerning the effectiveness and usefulness of including audio inserts within a newscast (Wulfemeyer and McFadden, 1985).

This study will examine the current use of actualities, define two primary forms of actualities, and attempt to measure difference of listener perception of the two forms of audio inserts. Furthermore, previous research will be cited to serve as a premise to conduct further study in this area of radio newsgathering and news broadcasting.

Radio program and news directors strive to present informative and effective newscasts. If a newscast causes confusion or is not pleasant to the ear, then changes should be made. Research in the area of news actuality usage is vital for several reasons. It is vital to the role a radio newscast plays on a program schedule. With stereo remote controls and pre-set buttons on auto radios, the

listener can, and often does, change stations instantly if undersired or ineffective programming is broadcast. Such research also would provide journalism schools with more data about response to and effectiveness of actualities. Their teaching of radio newsgathering techniques and the actions of working professionals may need to be modified. Research on this topic is timely because of those and other reasons. There has been limited research studying the use and effect of radio news actualities. Research on this topic, therefore, is timely.

This study differs from previous ones by concentrating on the listener perception of varying types of actualities. While there are no widely accepted or used operational definitions of types of actualities within the field of broadcast news, the characteristics of this study's conceptual definitions are recognized and commonplace within broadcast journalism. Studying two types of audio inserts will provide information about how to better spend time and effort in newsgathering. It is predicted listeners will respond and react differently to the two primary forms of actualities. If so, radio news personnel may be able to more effectively utilize their time in newscast preparation. Such results, in addition to those of previous studies, will be useful to journalists in both academic and professional settings. Additionally, these results may sharpen the definition of these varying forms of actualities and place the role of audio inserts within newscasts in a better perspective.

The research that has been completed seems to contradict journalism teaching and working standards among radio news professionals. Are broadcast journalists unknowingly presenting confusing, ineffective newscasts because they use actualities? Is more research needed to present a better perspective on news programming? Are listeners more likely to respond differently when presented two different kinds of radio actualities? Answers to questions regarding news actualities can serve as useful

information to news departments and journalism curricula. Such research could directly affect the news format. This type of study responds to a research need in this area. Listener response, news recall ability, and the perceived appeal are paramount to news programming, and providing research that measures these criteria would be helpful to newscasters and academicians.

II. Review of Literature

This study is based on examining and measuring the listener perception to varying forms of radio news actualities. To assist in applying a framework to this research topic, the symbolic interactionism paradigm may be applied. This social science paradigm reflects a context of meanings that constitute an environment in which people function. For example, words or phrases, or even different types of actualities, that convey symbolic interpretation of reality, can be internalized by the public. This research topic, how different forms of radio news actualities are perceived by listeners, addresses the relationship between the listener and the inserted audio elements of a newscast.

The use of radio news actualities is a common practice among newscasters and newsgathering operations. Although no specific historic information on the "birth of the actuality" is recorded, there are some references to the introduction of tape recording equipment to news organizations and its obvious relationship to the advent of actualities. In Broadcast Journalism author Mark W. Hall refers to how war coverage sparked up-to-date reports, on-the-spot reports, and "live" interviews. Edward R. Murrow clearly demonstrated the drama and power in broadcasting from on-location. His reports from London during World War II contained some of the same elements as today's news actualities: witness to an event, at-the-scene, and the background noise/activity that aids listeners to better develop a mental picture of the news event. Author Mitchell V. Charnely noted the extensive use of radio news actualities early on by WMAQ in Chicago. In his 1948 book News By Radio, Charnely describes the production process of actualities and encourages the practice of preparing these audio elements and inserting them into newscasts.

Previous research in this area has focused on effectiveness and usefulness of radio news actualities. Wulfemeyer and McFadden

found that college students who listened to a three and one-half minute simulated radio newscast with no actualities scored significantly higher in a multiple-choice test of recall and rated the newscast more interesting than did students who listened to a newscast with actualities. The researchers developed two versions of a five-story newscast. In one version, a newscaster simply read the five stories. The other version contained actualities within three of the five stories. Except for a few added words of attribution, the exact wording of the actualities was used in the first version. After the 282 subjects listened to the broadcast, they completed a 20-item multiple-choice test instrument.

Two hypotheses were not confirmed in this study. The presence of actualities had a negative effect on both recall and on the degree of listener interest. The researchers concluded actualities are not certain "attention-grabbers," "interest-enhancers," "or recall-improvers." Then they added "whatever the precise cause, the effect remains that actualities do not enhance, and may even hinder, listener recall of and interest in radio newscasts."

In 1987, Grady conducted a study to measure what effects, if any, are produced by radio voice reports and actualities. He carried out the project after citing expert claims that actualities take the listener to the scene of the news event and add vitality, believability, and intensity to the radio news story. Four treatment newscasts were produced. Each consisted of five news stories and a brief weather forecast. Each newscast was three minutes and 45 seconds in length and concerned fictitious, yet plausible-sounding events in a nonexsistent city. All four newscasts were alike except for the mode of presentation of one story. This story was variously produced in the form of a voice report with story-relevant background sound, a voice report with no background sound, a story containing an actuality, and a straight news story read by the same newsperson who read the other stories in the newscast. After listening to the broadcast, the 145 subjects completed a

questionnaire consisting of six unaided recall questions and 22 multiple-choice questions. Subjects also evaluated the quality of the newscast.

Two hypotheses were not confirmed. The presence of actualities, voice reports, and background sound made no difference in the response of the subjects regarding recall or newscast appeal. The researchers concluded the value of actualities and voice reports to a radio news program may be somewhat overrated. The authors of the study suggested more research is needed to determine precisely what, if any, value they have to radio journalism.

Other researchers in communication have shown interest in testing the emphasis and non-emphasis delivery by radio newscasters. Although their study did not directly address the use or kind of actualities, Meyer and Miller (1970) did evaluate delivery style's effect on listener information retention and attitude evaluation. They found delivery styles of a radio newscaster do not have a significant effect on the listener's ability to recall the material presented in the newscast.

Findahl and Hoijer (1975) found that although the amount of newscast repetition is of some importance, the nature of the repeated content is of even greater importance for the listeners' capacity to perceive and recall a news message. Overall, they noted that repetition and reformulation within a newscast lead to an increase in retention, but improvement was not proportional to the amount of repetition.

Timeliness cues such as "this just in," "moments ago," and "news flash" were researched by Tiege and Ksobiech (1982). The purpose of this study was to determine if these phrases affected listener response to the newscast in which they were used. Treatment newscasts, those with and without timeliness cues, were listened to by subjects. An audience evaluation questionnaire was completed by the subjects measuring general reaction to the

newscast, perceived journalistic integrity, perceived immediacy, and information recall. The results indicated such audio cues played a significant role in the newscasts. The audience rated newscasts with words suggesting timeliness higher than those without. Such newscasts also left listeners with the perception that the newscast and radio station using such language provided more immediate news coverage and, therefore, were a more credible source of news.

Having cited these previous studies, it appears the basis for these newscast studies is listener news recall, degree of interest, and attitude evaluation. These modes of evaluation were used in all of the studies, those which studied actuality use and those which did not. All of the results aid in forming a new research study that will continue the examination of radio news actuality effectiveness and usefulness. It has been the researcher's experience, both in the academic field and professional radio employment, that the gathering and use of radio news actualities enhances the credibility and appeal of a newscast. Actualities, it would seem, give the listeners an opportunity to hear directly from the newsmakers or those involved with the story or event.

The literature review, however, indicates the use of actualities does not enhance, and may even hinder, listener recall of and interest in radio newscasts. Furthermore, it has been found those who listened to a newscast without actualities scored significantly higher in news recall than those who listened to a newscast with actualities. Since there is a contradiction between these findings and the on-going professional practice of using actualities, there lies a need for further inquiry into the topic of actualities.

Those studies which specifically dealt with radio news actuality research were designed to measure and evaluate the differences between newscasts with and without actualities. Even though only a handful of researchers have studied this specific area, the results from various studies have been similar: actualities

seem to have no significance. In order to avoid duplicating a previous research study, yet still remaining within the established research framework, this study's purpose is to measure and evaluate the difference between types of actualities, as opposed to determining their value to radio newscasts. As most radio news organizations continue to devote a great deal of effort in the gathering, production, and broadcast of actualities, the results of the study hopefully will provide data showing significant differences in listener perception of types of actualities. If radio news organizations continue to use this production technique, despite the findings of previous research, then perhaps these findings will provide useful information as to which types of actualities are more effective.

Given the review of literature and the premise of this study, one other view about actuality use needs to be highlighted. British author John Herbert makes an extraordinarily fascinating comment about radio news listeners. He says there are "two distinct and surprisingly vocal types of listener. One likes news straight without any embellishments, no actuality. The other can't get enough actuality." Despite this difference in listeners' attitudes toward audio inserts, Herbert points out that "being there" is what radio news is all about. So long as the actuality is short, easily understood, and attractively presented, then newscasts, says Herbert, "ought to contain them."

III. The Hypotheses

This study seeks to update and expand upon previous research concerning radio news actualities. Based on the findings of previous broadcast journalism research, the following hypotheses will be tested:

Hypothesis 1: The presence of "dramatic" actualities will increase recall of a radio news story more than one containing "non-dramatic" actualities.

Hypothesis 2: The presence of "dramatic" actualities will increase the degree of interest in a radio news story more than one containing "non-dramatic" actualities.

Despite their estimated importance or unimportance, actualities will continue to be used on both the national and local levels of radio news. Broadcast competition is virtually built-in to today's media make-up. The desire to report a story well and in-depth fuels the fire of competition between rivals and, at the same time, provides a sense of satisfaction for the reporter. The gathering of actualities, in most cases, often represents the reporter's ability and devotion in the competitive field of news broadcasting. Several authors have likened the use of radio actualities to the video used by television news (Fang, 1980; White, Meppen, and Young: 1984). Furthermore, actualities add that extra bit of flavor to a station's reporting (Herbert, 1976). This study will attempt to provide a meaningful evaluation on listener recall and perception of different types of actualities.

In hypothesis one, the key is listener news recall. A questionnaire will be administered that will measure their ability

to recall facts from the news story. Does the dramatic actuality hinder or aid the listener from recalling the news facts and details? As the literature review indicates, some studies have suggested that actualities are a form of interruption or interference in the "conversation" that an anchorperson has with listeners. This research question does not attempt to determine *if* the actuality is significant, but *which* actuality of the two is more significant in providing the listener with news recall ability.

Hypothesis two attempts to determine the degree of listener interest in the story. To measure interest, subjects will be asked to evaluate the news update using a series of bipolar adjectives. Is one form of actuality more pleasing to the ear? Is one simply easier to listen to? Is one more exciting than the other? Of the two hypotheses, number two is more closely related to the overall presentation, or cosmetics, of the actuality and news story. This hypothesis will determine if one form of actuality helps create a news update that is perceived to be more appealing than the other.

These hypotheses are significant in that they expand upon the previously cited research. While actualities may hold little actual value in radio news, the differentiation between different types of actualities may prove to be useful.

Several concepts need further clarification. The definitions of "dramatic" and "non-dramatic" actualities each are comprised of several elements. While there are no widely accepted or used operational definitions of types of actualities, the characteristics of these conceptual definitions are recognized and commonplace within broadcast journalism. A dramatic actuality usually is filled with and evokes emotion; it grabs the ear. It expresses a sense of immediacy, urgency, and attention. The drama of the audio insert is often, but not always, enhanced by background noise and/or sound effects related to the news event. It is a strong statement spoken with energy and feeling. Deborah Amos, who authored an article on producing radio features, describes dramatic actualities as "hot"

inserts. Hot tape, says Amos, sounds like people are involved and makes the story interesting. An example of such an actuality would be the audio of a conversation between a pilot and the air traffic controller moments before a plane crash. This portion of conversation is of high interest and is often brimming with emotion. It provides the sense of intense involvement in the story.

A non-dramatic actuality, then, is an audio insert which is less energetic and relatively unemotional. It is an actuality in which a person explains the premise of an event, what the situation is, what the situation means, or gives his or her opinion about the issue. Unlike the dramatic actuality, this one does not have any background noise or related sound effects; it is strictly voice-only. Amos labels non-dramatic actualities as "explaining" inserts. Non-dramatic tape, as Amos defines, is a close cousin, but not the same as, dramatic tape. By definition it is not as exciting as the dramatic in its form of presentation. An example of such an actuality would be a Federal Aviation Administration investigator listing several possible causes for the plane crash. While this type of actuality may not be as emotion-filled as the hot tape, it certainly has its place in broadcast news.

In this research experiment, the use of differing types of radio news actualities is the independent variable. Its values are systematically varied by the experimenter who chooses which form of actuality to include in the news story. The dependent variables to be measured are the listener's news recall ability and the perceived degree of listener appeal. If these assumptions are correct, then the stated dependent variables will vary according to which news story is presented.

Measurement of these variables will be varied. After the subjects listen to one of the two news stories, they will complete a questionnaire. These questions about news story recall will help measure if the listener comprehended the facts and was able to recall them immediately after hearing the news story. To measure

appeal, subjects will be asked to evaluate the newscast using a series of bipolar adjectives. Additionally, there are two questions that will measure perceived journalistic ability and integrity. This measurement is closely related to the overall appeal of the news update.

IV. Method

Two versions of a one-minute radio news update were produced. This simulated news update, in addition to a standard open and close, contained a 45-second story. A "wrap" of this length is standard in radio broadcasting. In one version (control), the newscaster read the introductory story script, inserted the non-dramatic actuality, and read the closing story script. The other version (experimental) had the same procedure except a dramatic actuality was inserted. The dramatic script contained two phrases that were not included in the non-dramatic actuality. (See Appendices A and B) The phrases "just moments ago" and "[the fireman]...told FM 102 News at the scene" to correspond with the urgent tone of the dramatic actuality. Except for those two timeliness cues, the scripts were identical.

The non-dramatic actuality was recorded in a radio production studio and the other was recorded outside several feet away from a busy two-lane highway. Fire siren sound effects were later added to create a "live" sound to the audio insert. With the exception of the natural sound and added sound effects of the dramatic actuality, the two versions of the radio news update were similar. The news update script was read by a former television and radio news announcer and the actuality voice was that of a current radio announcer.

The story in the radio news update was about an explosion and subsequent fire at a local department store. There were no fatalities, but several shoppers were injured. Firefighters arrived at the scene promptly and had the fire under control within minutes. The actualities featured comments from the local fire chief who listed the probable causes of the explosion and the course of the ensuing investigation. In the non-dramatic actuality, the fire chief's comments were delivered in a straightforward manner; there was no hype. The quiet radio production room provided a calm

environment that matched the tone of the delivery. This actuality had an in-studio "feel" and "sound" to it. Conversely, in the dramatic actuality, the fire chief's comments were delivered with more energy, more vocal range, and with a sense of urgency. Since the dramatic actuality was recorded outside, the volume of the fire chief's comments are somewhat higher in order to compete with the outdoor sounds. This actuality has a genuine at-the-scene "feel" and "sound" to it.

Before the two versions of the radio news update were produced, a pre-test of the actualities was conducted to validate the x-variable. This pre-test helped determine if the stated differences in types of actualities was being perceived in a similar manner by other individuals. Ten randomly selected college students listened to each of the 14-second actualities and recorded their comments about the style of each audio insert. These subjects only heard the actualities; they did not hear the balance of the story. Their reactions supported the defining differences between the dramatic and the non-dramatic actualities. The subjects labeled the dramatic actuality "attention catching," "pertinent," "immediate," "emotional on-scene," and "exciting." They perceived the non-dramatic actuality to be "calm," "unemotional," "bland," "relaxed," and "non-urgent." (See Appendix C)

The questionnaire is comprised of eight multiple-choice information recall and three opinion questions. (See Appendix D) Since the news update was only one-minute in length, eight multiple-choice questions sufficiently addressed all of the story's information. The multiple-choice questions assist in measuring the recall levels of the news update's facts. Questions about the event, its location, the people involved in the incident, and other details were asked in this section. The opinion questions were asked to measure the appeal of the news update and its journalistic ability and integrity. A set of semantic differential questions were included in this section. These questions focused in on

believability, listenability, and overall appeal. Previous research studies and journalism professors were refered to in creating this study's bi-polar adjectives. The five sets of adjectives were selected to measure the attitude evaluation of the listener. As indicated in the literature review, the basis for the primary newscast actuality studies is listener news recall, degree of interest, and attitude evaluation. This study's questionnaire will also measure these three key areas.

Undergraduate students attending general education courses at Spring Arbor College (Michigan), a private, four-year liberal arts school, were used as subjects for this experiment. The general education courses, including "Introduction to Computers," "Introduction to Psychology," and "Issues and Cultures," were selected for their cross-section of students; a wide range of academic majors were represented by the students enrolled in these courses. The subjects were assigned randomly to one of the two treatment groups and separately exposed to one of the newscasts. After listening to the newscasts in a typical classroom setting, the subjects immediately completed the questionnaire.

A post-test only control group design was utilized (Figure 1).

Figure 1

Post-test Only Control Group Design

R	X	O
R		O

This design was used to avoid subject sensitization. This procedure involved exposing group one to the treatment variable, followed by a post-test. The two groups were compared to determine if a

statistical significance is present. Two statistical tests were used. The t-test, an information recall test, was administered to measure the mulitple-choice questions on the questionnaire. The t-test compares the significance between the two groups to determine if a significant statistical difference is present. It is one of the most widely used statistical procedures in all areas of research and is the most elementary method for comparing two groups' mean scores.

The standard z-score test was used for the paired evaluations, the second part of the questionnaire. A standard or "z" score indicates the placement of any score with respect to the mean, in terms of standard deviations above or below the mean. This statistical procedure is used frequently in media research because it allows researchers to directly compare the performance of different subjects on tests using different measurements.

V. Sampling Procedures

Several general education classes, comprised of freshmen, sophomore, and junior students with varying majors, were randomly selected to participate in the study. The classes were placed on a master roster sheet and every third class was selected to participate. This procedure was used until the minimum number of subjects (130) was attained. When the students arrived to class, they were handed a card from a shuffled stack of index cards. The cards were labled "A" or "B." This simple random sampling procedure guaranteed each subject an equal chance of being selected for either group A or group B, and the procedure was free from subjective intervention. The purpose of this form of random sampling was to reduce sampling error.

Subjects in group A remained in the classroom for version one of the simulated radio news update, while group B was taken to an adjacent classroom for version two. To avoid any negative impact derived from this procedure, every other time the subjects were tested, group A was taken to an adjacent classroom while group B remained in the original classroom.

VI. Results

Hypothesis 1 was not confirmed. Eight multiple-choice questions were used to measure the retention of the informational content of the radio news update. The t-test was administered to determine if a significant statistical difference was present (see Appendix E). The presence of dramatic actualities did not increase the recall of information by participating respondents. Subjects who listened to the newscast featuring the dramatic actuality scored a higher percentage of correct responses on four of the eight multiple-choice questions. Subjects who listened to the newscast featuring the non-dramatic actuality scored a higher percentage of correct responses on three of the eight multiple-choice questions. Both groups of subjects scored a perfect 100% on one of the eight multiple-choice questions. The results are indicated in Table 1.

Table 1
Percentage of correct responses on the eight multiple-choice questions by the questionnaire respondents

Question on instrument	Dramatic newscast respondents	Non-dramatic newscast respondents
1.	55%	47%
2.	85%	79%
3.	86%	79%
4.	100%	97%
5.	88%	94%
6.	70%	75%
7.	100%	100%
8.	52%	65%
mean score	6.4	6.3

Subjects who listened to the dramatic actuality newscast better recalled where the fire took place (+8%), the time of the incident (+6%), the identity of the fire chief (+7%), and the cause of the explosion and fire (+3%). Subjects who listened to the non-dramatic actuality newscast better recalled where in the store the fire broke out (+6%), the number of injured people (+5%), and the number of people taken to the hospital (+13%). Subjects in both groups scored a perfect 100% in recalling that no one was killed in explosion and fire.

The range of percentage differences is quite low. With the exception of the final multiple-choice question ("How many people were taken to the hospital?"), the widest range between the two groups' responses was only eight percent and the narrowest gap was three percent. It should be noted, though, while the dramatic actuality respondents scored higher on four of the eight questions and the non-dramatic actuality respondents scored higher on three of the eight questions, the overall percentage of the multiple-choice section of the questionnaire garnered an identical 80% rating for each of the groups.

Figure 2 - Overall multiple-choice score for both groups

Dramatic Actuality News Update Respondents	80%
Non-dramatic Actuality News Update Respondents	80%

The dramatic actuality newscast mean was 6.4 and the non-dramatic actuality newscast mean was 6.3.

Hypothesis 2 also was not confirmed. Subjects were asked to evaluate the news update by making their selections on a series of bipolar adjectives. Two other questions were asked to measure perceived journalistic ability and integrity. A frequency table was

established by making a tally mark for each subject's response to the bipolar adjectives and for the other questions. The tally marks were then added up and converted to percentages. A standard z-score test was administered to determine if significant statistical differences were present (see Appendix F). The presence of dramatic actualities slightly increased the degree of interest in the radio news update by participating respondents. Subjects who listened to the newscast featuring the dramatic actuality found it to be of higher professional ability and integrity, easier to-listen-to, and more credible than those who listened to the non-dramatic actuality. Subjects who listened to the newscast featuring the non-dramatic actuality, however, found it to be more newsworthy than did the other respondents. The results are indicated in Table 2.

Table 2
Percentage of responses on bipolar adjective scale and opinion questions by the questionnaire respondents

Question on Instrument	Dramatic newscast respondents	Non-dramatic newscast respondents
Section B		
9. (Journalistic ability)	83%	74%
Section C		
1. (Newsworthy)	89%	94%
2. (Easy to-listen-to)	79%	76%
3. (Professional)	83%	74%
4. (Credible)	92%	90%

The subjects who listened to the dramatic actuality news update rated each of the cateogries on a higher percentage except for newsworthiness. Five percent more of the non-dramatic

actuality respondents rated their news update newsworthy. Otherwise, the dramatic actuality respondents found their news update to be of higher journalistic ability (+9%), easier to-listen-to (+3%), more professional (+9%), and more credible (+2%). Like in hypothesis 1, it is important to note the range of difference in percentage points is relatively marginal. Yet, subjects who listened to the dramatic actuality news update indicated an overall higher degree of interest and appeal in four of the five opinion categories.

VII. Summary, Conclusions, and Suggestions

The results obtained through this research study address the relationship between the listener and the inserted audio elements of a newscast. This study has found different forms of radio news actualities have little effect on the listeners' radio news recall ability. While several previous studies have determined actualities add little significance to radio newscasts, this study demonstrates little difference in news perception despite differing types of actualities.

In terms of news recall, subjects who listened to the dramatic actuality newscast were better able to recall information that preceded and was included in the actuality. There were two exceptions to this conclusion. First, the information about the location of where in the store the fire broke out preceded the actuality. Non-dramatic actuality respondents, however, scored a higher number of correct responses on this question than did the dramatic actuality respondents. Second, the question asking how many people were killed in the fire and explosion did receive a high correct response rate. This information came after the actuality within the news update, but both groups scored a perfect 100% on this question. All of the other information in the news update which followed the actuality insert was not recalled as well by the dramatic actuality respondents.

For the subjects who listened to the non-dramatic actuality news update, their scores were generally higher on information that followed the actuality insert. The one exception, as noted in the previous paragraph, was the question about the location of the fire in the store. Furthermore, the non-dramatic actuality respondents did score quite high (97%) on one other question that pertained to information included within the actuality.

It may be concluded, then, once a dramatic actuality has been aired within a given news story, listeners will be less likely

to recall information that may follow. One possible explanation may be once the listener has heard the story's headline, the initial facts, and the comments of the dramatic actuality voice, the story's important details have been announced. These may be details that are considered to be the most important in the mind of the radio news listener. On the other hand, it is difficult to explain the recall behavior of those subjects who listened to the non-dramatic actuality news update. These listeners had difficulty in recalling what kind of store was involved and the identity of the fire chief, yet were able to better remember how many people were injured and hospitalized. Whatever the reasons are for this pattern, these findings are fascinating. It places responsibility on the news programmer to carefully create a well-designed broadcast story.

Despite the perceived differences from question to question on the test instrument, both groups of subjects averaged the same overall score on the multiple-choice questions. Each group registered a score of 80%. The mean scores for each group were nearly identical. The dramatic actuality newscast group mean score was 6.4, while the non-dramatic actuality newscast group mean score was 6.3. Overall, there appears to be little difference in the news recall ability of listeners who respond to different types of actualities placed within a newscast.

This study has also found subjects who were exposed to different forms of radio news actualities did not show a significant difference in terms of their evaluation of the general appeal of the radio news update. On a strict percentage basis, the subjects who listened to the dramatic actuality newscast found the update to be generally more appealing on four of the five opinion questions measuring degree of interest. Even though these listeners ranked the newscast as more credible with a higher degree of professional ability and integrity, they also found it to be less newsworthy than the subjects who listened to the non-dramatic actuality. That is a puzzling response given the nature of the dramatic actuality's at-

the-scene presence with the natural sound and sound effects of the actual event. Statistically, though, there was not a significant difference between the two groups.

Furthermore, two timeliness cues were added to the dramatic actuality script that gave the audio insert a sense of immediacy. Many respondents noted on their questionnaire's, however, they would have found the story more newsworthy if the store had a recognizable name. The generic name of "Value Mart" was selected for the radio news script.

No doubt there are limitations to this kind of experiment. The fictitious nature of the radio news update and the story itself may have had some effect on the outcome. Yet, many elements of the study worked well. A large, diverse random sample participated. The questionnaire's objectives, for the most part, were reached. The methodology seemed appropriate for this research subject. There were, however, some things that could have been changed.

One of the paired evaluation questions appeared to be confusing to some of the respondents. The second of the bi-polar questions asked if the respondent found the newscast "easy to-listen-to" or "difficult to-listen-to." Based on some respondents' written comments in the margin next to the question, it is apparent they perceived the question differently than the researcher intended. The original intent was to determine if the newscast ran smoothly, free of error or confusion, and was easily understandable Some respondents, however, answered the question based on the *content* of the news update story. Some felt a story detailing a fire, ensuing damage, and personal injury was "difficult" to listen to. A story about a rescue or the deeds of a good citizen, in their thinking, would have been "easy" to listen to.

Additionally, the unnaturalness of the setting and the nature of the controlled experimental design make it difficult to generalize the findings to more normal radio news environments. As with all random samples a representative group may not result in every

case. Yet, a study of this design has its advantages, too. A detailed knowledge of the population was not required to conduct the study, and external validity may be statistically inferred.

An intervening variable of this experiment was the interruption of a tardy student entering the classroom. In one of the randomly selected classes a student entered the classroom while the subjects were listening to the radio news update. Most students looked up to see the student, no doubt momentarily shifting their attention from the newscast to the student and back. In the future researchers need to be aware of such a potential interruption and take the necessary steps to prevent it. Placing a sign on the door alerting a tardy student that a test was in progress may be a simple solution.

Since there are no widely accepted or used terms in the field of broadcast journalism in defining types of actualities, the conceptual definitions of "dramatic" and "non-dramatic" may be somewhat misleading. For example, there is the possibility that an in-studio recording of comments from a news source may very well be packed with emotion and drama, but not conform to this study's given definition of a "dramatic" actuality. The opposite may be true as well. Nevertheless, these terms have been narrowly defined and categorized in this study to include the common elements of radio news actualities.

The dramatic actuality, for this study's purpose and within the broadcast arena, usually is filled with and evokes emotion; it grabs the ear. It expresses a sense of immediacy, urgency, and attention. The non-dramatic actuality is less energetic and relatively unemotional. It is strictly voice-only with no background noise or related sound effects. Certainly, there could be exceptions to both of these defined examples. But the specific definitions given here coupled with the testing methodology seem to give an accurate measurement of the desired objectives.

Research in the area of radio news acualities or voice reports

is very limited. Most of the journal articles, reports, and books referenced each other. New study in this area is desperately needed since the use of the radio actuality is so prevalent despite the findings of its futility. The concern over the actuality's purpose and usefulness, though, seems somewhat curious. Newspaper writers quote sources in their stories and television newscasters feature video in their newscasts in order to more effectively communicate. Why, then, wouldn't radio broadcasters insert actualities of newsmakers? The actuality serves the same role as quoting a source, but presents it in a more direct form.

Overall, it appears differing types of actualities have little or no effect on the listeners' ability to recall informational content, but some effect on the degree of newscast appeal to the radio listener. What this may mean, then, for radio journalists is the time and effort given to sending reporters with their tape recorders to the scene of an event is unnecessary. A radio news director or reporter may be more inclined to rely more heavily on contacting a news source by telephone or using the audio inserts provided by news networks instead of hustling to a fire or an accident to get an immediate reaction. In the days of downsizing broadcast operations, many news departments are looking for ways to save money. These findings may offer some relief in the pressure to continually "beat the streets." If there is no significant difference in news recall or perception between to the types of actuality-gathering, then a financially-strapped news operation could benefit from such findings.

Broadcast journalism competition, as mentioned in chapter III, is a built-in characteristic in today's news media. The desire to report a news story well fuels the fire of competition between rivals. At the same time it provides a sense of satisfaction for the reporter to obtain an interview with an elusive public official or to get the "scoop" on a new story. Radio station A not only sends a reporter to the scene of a story to get the details, but because radio

station B is going to be there. The gathering of actualities, in most cases, often represents the station's ability and desire to be competitive in the field of news broadcasting. Because of this competitive spirit and the nature of news reporting, few changes, if any, are expected as a result of this study. If a news operation continues to use actualities, then this research may help them realize how the actualities are obtained is of little importance to the listener.

When this study is combined with an earlier one about the value of voice reports and actualities to a radio news program, it again raises the question concerning the need of these audio inserts. As other researchers have concluded the value of the news actuality may be somewhat overrated. As this study discovered, it may well be radio news journalists place more value and emphasis on obtaining dramatic-like actualities than is necessary.

APPENDICES

APPENDIX A - SCRIPT OF DRAMATIC ACTUALITY NEWS UPDATE

"Good afternoon - this is an FM 102 News Update.

A minor explosion touched off a fire this morning at a local department store. Business at the Value Mart, at the Southcenter location, was interrupted when a fire broke out near the back of the store at about 9:15 AM. Just moments ago, Fire Chief Bill Tansforth told FM 102 News at the scene there are several possible causes for the blaze:

(insert actuality: "Uh, some of the shoppers said they smelled gas - so, we'll be looking into that. But you always gotta check, uh, some of the standard possibilities, too -- like, uh, faulty wiring or bad ventilation....and, uh, even the possibility of arson.")

Fire Chief Bill Tansforth. Fortunately, not too many shoppers were in the building at the time -- the store had just opened. Firefighters - who arrived on the scene promptly - report no one was killed in the blast, but three shoppers were slightly injured and were taken to the hospital for observation. The exact cause of the explosion and fire remains uncertain, but fire authorities will be investigating.

This has been an FM 102 News Update. More news in one hour."

APPENDIX C - PRE-TEST RESULTS

The following are responses from randomly selected students who listened only to the dramatic and non-dramatic actualities in a pre-test. The pre-test was conducted prior to the production of the two radio news updates. These subjects were asked to briefly describe the type of each actuality. The responses are not listed in any particular order.

DRAMATIC ACTUALITY	NON-DRAMATIC ACTUALITY
"attention catching"	"relaxed"
"emotional"	"boring"
"interesting"	"bland"
"background excitement"	"unemotional"
"urgency"	"calm"
"realistic"	"non-dramatic"
"on-scene"	"non-urgent"
"energy-filled"	"in-studio"

APPENDIX D - QUESTIONNAIRE

A. 1. Where did the event take place?
   A. a grocery story
   B. a convenience store
   C. a department store
   D. a furniture store

2. What time did the event take place?
   A. in the morning
   B. in the afternoon
   C. in the evening
   D. news update didn't say

3. Who was the quoted person in the news update?
   A. store manager
   B. police chief
   C. fire chief
   D. bystander

4. What caused the explosion and fire?
   A. gas leak
   B. faulty wiring
   C. arson
   D. uncertain cause

5. Where did the fire break out?
   A. front of the store
   B. back of the store
   C. the roof
   D. loading/unloading zone

6. How many people were injured?
   A. none
   B. one
   C. two
   D. three

7. How many people were killed?
   A. none
   B. one
   C. two
   D. three

8. How many people were taken to the hospital?
   A. none
   B. one
   C. two
   D. three

APPENDIX D - QUESTIONNAIRE (CONT.)

B. 9. Was the quoted person in the news update believable?

10. Was the news anchor in the news update believable?

C. Did you find the news update...(circle one description for each of the following)?

1. newsworthy / un-newsworthy
2. easy to-listen-to / difficult to-listen-to
3. professional / unprofessional
4. credible / non-credible

APPENDIX E - STATISTICAL CALCULATIONS FOR TEST INSTRUMENT HYPOTHESIS 1

The formula for the independent t-test is:

$$t = \frac{\bar{x}_1 - \bar{x}_2}{Sx_1 - x_2}$$

where $\bar{x}_1$ = the mean for group 1 (dramatic)
$\bar{x}_2$ = the mean for group 2 (non-dramatic)

$Sx_1 - x_2$ = the standard error for the groups

The standard error is an important part of the t-test formula and is computed as follows:

$$Sx_1 - x_2 = \sqrt{\left(\frac{SS_1 + SS_2}{n_1 + n_2 - 2}\right)\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}$$

where SS_1 = the sum of squares for group 1
SS_2 = the sum of squares for group 2
n_1 = the sample size for group 1
n_2 = the sample size for group 2

Dramatic actuality mean = $\bar{x}_1$ = 6.4
Non-dramatic actuality mean = $\bar{x}_2$ = 6.3

APPENDIX E - STATISTICAL CALCULATIONS FOR TEST INSTRUMENT HYPOTHESIS 1 (CONT.)

Using the t-test formula, the next step is to compute the standard error for the groups by using the previous formula:

$$Sx_1 - x_2 = \sqrt{\left(\frac{106.22 + 101.32}{66 + 68 - 2}\right)\left(\frac{1}{66} + \frac{1}{68}\right)}$$

$$= \sqrt{\left(\frac{207.54}{132}\right)\left(\frac{67}{2244}\right)} \quad = \sqrt{\left(\frac{13,905.18}{296,208}\right)}$$

$$= \sqrt{.0469} \quad = .2166$$

$$S_{x_1 - x_2} = .2166$$

This standard error value is substituted in the t-test formula:

$$t = \frac{6.4 - 6.3}{.2166} = \frac{.1}{.2166} = .46$$

APPENDIX E - STATISTICAL CALCULATIONS FOR TEST INSTRUMENT HYPOTHESIS 1 (CONT.)

In order to determine whether the t value of .46 is statistically significant, a t-distribution table is consulted. In order to interpret the table, two values are required: degrees of freedom and level of probability. Using this hypothetical data, df = 132 (68 + 66 - 2). If the problem is tested at the .05 level of significance, a t value of 1.645 is required for the study to be considered statistically significant:

$$t \leq -1.645 \quad \text{and} \quad t \geq 1.645$$

The conclusion of these data is that there is not a significant difference between the recall scores of the dramatic actuality news update group and the recall scores of the non-dramatic actuality group.

APPENDIX F - STATISTICAL CALCULATIONS FOR TEST INSTRUMENT HYPOTHESIS 2

The formula for the standard z-score test is:

$$z = \frac{P_1 - P_2}{\sqrt{\frac{P_1(1 - P_1)}{N_1} + \frac{P_2(1 - P_2)}{N_2}}}$$

where P_1 = the percentage score for group 1 (dramatic)
P_2 = the percentage score for group 2 (non-dramatic)

$P_1 - P_2$ = the differential between the groups

where N = the number of subjects $N_1 = 66$ $N_2 = 68$

Group 1	Group 2	Characteristic
N = .83	N = .74	journalistic ability
N = .89	N = .94	newsworthiness
N = .79	N = .76	listenability
N = .83	N = .74	professionalism
N = .92	N = .90	credibility

$$z = \frac{.83 - .74}{\sqrt{\frac{.83\ (1 - .83)}{66} + \frac{.74\ (1 - .74)}{68}}}$$

APPENDIX F - STATISTICAL CALCULATIONS FOR TEST INSTRUMENT HYPOTHESIS 2 (CONT.)

$$\left(.002138 + .002829\right) = \sqrt{.004967}$$

$$\sqrt{.004967} = .0705$$

$$\frac{.09}{.0705} = 1.28$$

In order to determine whether the z-score is statistically significant, a z-score table is consulted. Tested at the .05 level of significance, a z-score of 1.645 is required for the study to be considered statistically significant.

Z-score tests were run for each of the five characteristics on the questionnaire relating specifically to hypothesis 2.

Here are the z-scores for hypothesis 2:

Journalistic ability	1.28
Newsworthiness	- 1.04
Listenability	.416
Professionalism	1.28
Credibility	.405

The conclusion of these data is that there is not a significant difference between the recall scores of the dramatic actuality news update group and the recall scores of the non-dramatic actuality group.

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