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THE HEALTH, MEDICINE, AND SAFETY CATEGORY,

THE OHIO STATE UNIVERSITY, PH.D., 1979

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INSTRUCTIONAL BEHAVIORS: A DESCRIPTIVE STUDY OF FILM FESTIVAL WINNERS AND NON-WINNERS IN THE HEALTH, MEDICINE, AND SAFETY CATEGORY, 1974-1977

DISSertation

Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy in the Graduate School of The Ohio State University

By

Marie E. Collart, B.S., M.S.

* * * * *

The Ohio State University
1979

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Robert W. Wagner, Ph.D.
John C. Belland, Ph.D.
John B. Hough, Ph.D.
Lillian M. Pierce, Ph.D.

Robert W. Wagner
Department of Educational Foundations and Research
I dedicate this effort to

my parents, Ethel Neasom Collart
and
Richard Clement Collart

who are my best teachers . . . . .

and

Professor Sidney C. Eboch

whose energies are still realized . . .
ACKNOWLEDGMENTS

I wish to express sincere thanks to the members of my committee, Dr. Robert W. Wagner, Chairman, Dr. John C. Belland, Dr. John B. Hough, and Dr. Lillian M. Pierce. Each made a unique contribution to my personal growth and the completion of this study. Dr. Wagner's pioneering efforts in instructional film research established a foundation for this research. Dr. Hough's and Dr. Belland's creative efforts in developing the Observational System for Instructional Analysis provided a methodology highly applicable to film analysis. Dr. Pierce's insights into research strategies and designs provided the critical focus for the synthesis of this study.

I am grateful to the Columbus International Film Festival whose cooperation made possible the implementation of the research design. Specifically, I wish to thank Daniel Prugh, President, Mary A. Rupe, Secretary-Treasurer, and Sharon R. Pottebaum, Chairperson, Health, Medicine and Safety Category.

I would like to extend appreciation to the film producers and distributors who participated in the study. Each is individually listed in Appendix G.

iii
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Finally, a very special thank you to my parents for their inspiration and never-ending faith.
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PUBLICATIONS

Preventing post-operative atelectasis.  Am. J. Nursing 71:1982-

Computer assisted instruction for continued learning.  Am. J. 

Learning from the computer: What every health care administrator 
should know.  Modern Hospital, November, 1972.  pp. 
103-107.

CAI can provide both: Rapid reviews and specific answers.  Modern 
Hospital, November, 1972.  pp. 107, 110-111.

Computer assisted instruction and the teaching-learning process. 

PUBLICATIONS (con't)


FIELDS OF STUDY

Major Field: Educational Communications, Foundations and Research

Studies in Educational Communications
Professors John C. Belland, Sidney Eboch and I. Keith Tyler

Studies in Instructional Theory and Interaction Analysis
Professors John C. Belland, John B. Hough and James K. Duncan

Studies in Photography and Cinema
Professors Robert W. Wagner and Clayton K. Lowe

Studies in Educational Research
Professors Robert J. Warmbrod and Lillian M. Pierce
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CHAPTER I

INTRODUCTION

Problem Perspective

In the past twenty years, rigorous research designs and statistical analyses have been reported in the film research literature. Literally hundreds of findings have been published on this medium. Hoban and van Ormer (1950) alone report over three hundred studies between 1918-1950. Film has been researched as much, if not more, than any other instructional medium.

The history of film research indicates that the majority of studies have focused on what film does to people. Gloria Waldron (1949, p. 27) identifies four of the great educational advantages of the screen: (1) the illusion of reality in film, (2) the visual representation of knowledge without words, (3) the visual attractiveness to some of film over print, and (4) the ability of film to focus group attention. Of these four educational advantages Waldron reports that group attention appears to have had the most research exploration.
One undeniable conclusion of film research is that people do learn from films. Hoban and van Ormer (1950, p. 91) identify five values of instructional film. The first is "People learn from films". Not only is overwhelming empirical evidence available to support this value, but according to Wagner (1967) motion pictures significantly affect emotions and behavior, although the degree and direction of the change is not always predictable. Wagner (1970, p. 383) says, "The influence of today's visual imagery is affective".

It is a commonplace observation that 16 mm film can affect one's mood. Numerous studies additionally demonstrate marked physiological responses. Empirical evidence documents that film does influence attitudes, motivations, opinions, and attitudes. Perhaps affective and attitudinal objectives are those that instructional films facilitate most effectively.

The marked amount of film research has been accompanied by a substantial growth in the production of 16 mm films. The sixth edition of the Index to 16 mm Educational Films (1977) lists 100,000 entries. Unfortunately, however, research on instructional film production techniques has not kept pace with the growing interest in production. Research studies by Wagner (1953), Harber (1953), Moore (1970) and Schmidt (1972) analyzed instructional film characteristics to formulate some beginning production guidelines.

Maclennon and Reid (1964) conclude: "There is not the slightest doubt that suitable films stimulate learning and that the way in
which films are produced can influence the degree of learning. On the other hand, it would appear that no techniques have yet been discovered for consistently producing large and significant differences in learning" (p. 29).

According to Hoban and van Ormer (1950) at least four major elements must be taken into consideration in an adequate discussion of the educational effectiveness of motion pictures. These are:

1. The end-purpose, or objective.
2. The characteristics of the audience.
3. The content and structure of the film.
4. The context in which the film is presented to the audience.

The sparsity of studies on instructional film design indicates a need to explore the elements of film structure. The other elements obviously interact with the structure and instructionally do. The question related to structure needs specific attention to determine "How" and "Under what circumstances" the structural elements are being manipulated to produce influence. Guidelines for instructional film designers are being sought. This is a step toward structuralism in decision-making.

Background on the Nature of the Problem

Schmidt, one of the few film design researchers to develop a profile of outstanding instructional films (1972), speculates that a descriptive study of "what is" might tell us more about "what should be" in a way that experimental research has never been able to accomplish. The approach used in the present study was a description of "what is" in two samples of 16 mm films. One sample
of films won the prestigious Chris Statuette at the Columbus (Ohio) International Film Festival, while the other sample of films received the lowest possible score in the same judging. The extreme dichotomy of the two samples accentuated the characteristics of the variables for description and analysis.

There has been a shift from past research studies on "what media do to people" to current studies regarding "ways people respond to media". The premise of this study was that people do respond to instructional media's affective objectives. The research questions are, therefore, based on the need to determine in what ways the 16 mm film medium is instructionally organized.

The motion picture, according to Wagner, can achieve involvement on different levels of sensation when artfully designed and when the audience is at once appreciative and critical of both the medium and the message. This means empathetic engagement as well as critical disengagement; being able to step out of, as well as into, a motion picture situation (1970, p. 381).

It appears that many instructional designers generalize findings to films too broadly. It is probable that differences specific to cognitive, attitudinal, and psychomotor objectives should and do exist among films.

A research approach to the instructional design problem is viable. Wagner reports that, although film making involves art, scientific evidence is accumulating which could lead to an empirical basis for instructional film design (1955, p. 57).
However, 17 years later, Wagner (1972) cites Brown and Thorton as indicating that film producers and most teachers know that film design is not all that scientific, that there is an art to the making of an instructional film in the sense that it requires stylistic variations, and because the present state of learning theory and the science of human behavior is still incomplete.

There is a philosophical debate in film design on the balance between "art" and "science". This raises problems if those who subscribe heavily to the "art" end of the continuum reject scientific inquiry as a means to advance the field and vice versa.

Identifying the influence of specific film techniques is not easy. Some film makers imply that the experimental approach is not desirable. However, Wagner's opinion is, "Despite the misgivings of some film practitioners, what has been learned about the effectiveness of various rhetorical elements in instructional film research need not be taken as a formalized pattern, but rather as the basis for a more intelligent approach to film design" (1955, p. 57).

Significance of the Study

Schmidt (1972) indicates that further film research is needed to determine the effective design elements used in films judged to be outstanding.

Schmidt's findings indicate that perhaps a science of instructional film making is emerging (1972). Hoban suggests,
however, that in the area of emotional responses to instructional films, we are still in a "stone age in research" at the informational level despite our research technology (1971, p. 26).

The need for research in film design is perhaps best articulated by Wagner in several sources. Wagner (1968) points out that the factors involved in the design of superior instructional materials obviously must include more than how to get the right message to the right audience in the right medium. He suggests the importance of a deep consideration of the art of teaching and a definition of the design in terms of "the thoughtful, artful, organic application and creative control of technological systems".

Wagner cites General Education in a Free Society, Report of the Harvard Committee written nearly 25 years ago that identifies the systematic study of design in exposition as one of the most "strangely neglected fields" of educational inquiry (1970, p. 384). Although Wagner recognizes that contemporary comment continues to reinforce the widely held belief in the power of the film, he states that how to make and use films wisely is still as neglected as suggested above. Part of the neglect may be explained by the intricate interaction of content and form complicated by the multiple, transitional, and transactional forms of sounds and images. According to Wagner, such research involves complex multiple factor analysis.
In 1966 Wagner indicated, "Any evidence that might add to the production palette of the educational film is useful" (pp. 5-6). In addition to the need for research in film there is a need for further research in teaching motivations and attitudes. Miller says, "We know much less about teaching motivations and attitudes than about teaching factual knowledge. We desperately need to make a general theoretical-experimental attack on the problem of influencing motivation" (1957, pp. 64-65).

Wagner (1970, p. 383) urges: "The nature of the film experience needs to be explored in both its affective and informational aspects and educators should know much more about how film theorists have come to regard the medium and why they deplore the kinds and uses made of films in education".

It is well established that films do contribute to learning and that the educational influence on the viewer may be long-term. Current research needs include investigating the variables which maximize the instructional effectiveness of films. Experimentation is needed to investigate the influence of design and production variables on instructional effectiveness.

Carpenter and Greenhill (1956) conclude that instructional film research (1) defines problems in production (rather than offers readymade solutions), (2) suggests critical areas in production where decisions must be made (rather than tells what decisions to make), (3) provides detailed information about a range of film
characteristics and their effect on learning in different situations (rather than tells what film characteristics to use in a given situation), and (4) points the way to new applications of instructional films.

A significant factor in the present research was that it was a necessary first step toward developing hypotheses and identifying more specific problems. By accurately portraying the incidence, distribution, and characteristics of instructional behaviors, patterns, and production elements new insights were gained to formulate more specific research problems. Familiarity with design considerations opens the possibilities of identifying potential causal links. Experimental research may then be designed to manipulate these variables.

Lumsdaine captures the essence of film research and the diversity involved in design as follows:

"... the principle that research can come up with will always be nothing more than statements about film methods; and it's important to remember that a film method is not a film. It's only an approach to a film which still has to be implemented by the creativity of the film writer and director ... I think that what research provides in the way of dependable facts and principles about the relation of film methods to educational outcomes will increasingly permit more opportunity, not less, for the application of creative talent in the construction of more effective films" (1951).
The present study was approached with the spirit of flexibility described by Lumsdaine. Research in social psychology and instructional film have, at times, been parallel but have not been well related.

In the area of the investigator's interest, education in the health professions, influence of attitudes is extremely important. Elderly and the terminally ill persons are often overlooked, avoided, and shoved into a corner. Personalized care is needed when an individual is referred to as "the gallbladder down the hall". Humane treatment is lacking when the patient is ignored in the conversation of medical personnel as they group around his bed in teaching rounds. Empathy is scarce when a critically ill person and his family are treated with a "matter-of-fact" "all-in-a-day's work" attitude. It is false to assume that everyone enters a helping profession with the patient's interests always first in thought and action.

Can films alter these attitudes? Evidence suggests they can. Perhaps priorities can be realigned by stirring emotions. What's wrong with eliciting a depth of feeling in an educational experience? Why should instructional films avoid stimulating natural human responses? Theatrical or entertainment films can and do stir the emotions. The act of crying or laughing may be one of the most valuable stimulators and indicators of an effective filmic experience.
Definitions of Pertinent Terms

A review of the literature in the area of conceptual definitions of affective domain variables and 16 mm film variables appears in Appendix A.

OPERATIONAL DEFINITIONS

Advertising Strategies - characteristics of the message that are arranged with the intent to persuade a person to buy a product or service (described by Boorstin, 1972; Doob, 1935; Childs, 1965).

Affective Domain - includes objectives which describe changes in interest, attitudes, and values, and the development of appreciations and adequate adjustment: can be classified in the Taxonomy of Educational Objectives, Handbook II: Affective Domain by D. Krathwohl et al., 1964).

Agreeable Content - information with which the subject agrees initially or finds pleasant and with which he would like to agree.

Attention-Directing Devices - techniques to call attention to relevant parts of a visual which may otherwise have been overlooked, e.g., animation, color, slow or fast motion, etc.

Attractiveness - receiver's motivation to attain a gratifying self-concept through his position on the issues "vis-a-vis" the position advocated by the source; also, the receiver's familiarity with, and liking of the source (McGuire, 1969, p. 187).

Audience Involvement Techniques - active experience techniques to draw the audience into the film; these include the elements of identification, familiarity, anticipation, participation, and dramatic film structure.

Award-winning Films - for purposes of the present study, films entered in the Columbus International Film Festival that were awarded the Chris Statuette; the highest award for a score of "7" reserved for films rated as "outstanding", or "approaching perfection".

Awareness of Intent to Persuade - message receiver knows that the message source is trying to change his knowledge, attitude, or behavior.
"Boomerang" Effect - a protective mechanism used by message receivers when a large discrepancy exists between their position and the message sender's position; results in the receiver's original position being strengthened and the intended message rejected or reversed.

Cognitive Domain - includes objectives which deal with the recall or recognition of knowledge and the development of intellectual abilities and skills. Can be classified in the Taxonomy of Educational Objectives, Handbook I: Cognitive Domain by Benjamin S. Bloom, Editor, 1956.

Color - cognitive - color shows what an object looks like as a discriminating cue.
- affective - color shows what a message means as an effective cue.

Communication Variables:
Source - communication sender
Message - content or intent of communication
Receiver - intended target audience for message
Channel - means by which message transmitted

McGuire, 1968 (e.g., Lasswell's Communication Concept, 1948)
who (source) says what (message)
to whom (receiver) how (channel) and with what effect

Credibility - characteristics of the source or message that are perceived as believable, trustworthy, impartial, prestigious, and informative versus manipulative.

Explicit Conclusions - an explicit statement of the cognitive, affective, or behavioral change desired as a result of the communication.

Film Design - the arrangement of filmic techniques or elements related to intent or purpose of a message film which results in its final form or composition.

Animation - use of inanimate objects, drawings, or other graphic works to represent reality; de-emphasizes specific identify of persons, places, objects, time, and clarify concepts difficult or impossible to show by conventional film techniques.

Creative - demonstrates the creative and innovative dimensions in film making and elicits an excitement and involvement.
Didactic - informs in a linear, factual way similar to an information-giving lecture.

Demonstration - depicts in a sequential fashion the steps by which to perform a skill or task.

Documentary - depicts subject matter as it appears "in reality", the key characteristic being versimilitude.

Dramatic - features and highlights the contrasts and gripping aspects of a subject through drama or fictional narrative form.

Open-ended Film - designed for suspense: the pause at a critical moment leaving the audience close to but not in possession of the resolution.

Simulation - reconstructs reality as a first-hand subjective experience for the viewer.

Single Concept - deals with one small component or concept of a broad subject area.

Identification - the psychological relationship that occurs when a person is attracted to a "story" character or situation which exists in the viewer's personal perception.

Instructional Behaviors - for purposes of this study, observable behaviors in an instructional setting represented by activities in three broad classes (appraisal, managerial, and substantive) that are defined by Hough, Duncan, and Belland and included in the Observational System for Instructional Analysis IV (OSIA IV).

Instructional Patterns - the configurations and sequences of instructional behaviors in OSIA IV.

Modeling - behavior being portrayed by a model with the intended outcome of imitation of the behavior by the message receivers.

Music -
  cognitive - music transmits content support.
  affective - music as stimulus for emotional support.

Non-award Winning Films - for the purposes of this study films entered in the Columbus International Film Festival with the lowest scores: "1", "2" and "3" ("poor" to "fair").
Order of Presentation - sequence or organization of instructional strategy, e.g., move from cplex to more complex information.

Persuasive Appeals

Ethos - appeal concentrates on attractiveness and credibility of source.
Logos - uses logical argument and deduction.
Pathos - appeals to feelings, values, emotions, puts receiver in a pleasant mood while receiving message.
Threat Appeal - an appeal of a persuasive communication which alludes to or describes unfavorable consequences that are alleged to result from failure to adopt and adhere to the communicator's conclusions.

Persuasive Message Strategies - a purposeful arrangement of variables for communication with persuasion as the intended end result.

Production Elements - observable descriptive design characteristics of a film.

Audio Dominance - primary use of audio elements to communicate the message

Introduction - clear, succinct communication of the problem to orient the audience and establish a "set" or condition of readiness of the presentation, "advance organizers".

Optical Effects - zooms, stop motion, fades, dissolves, etc.

Story Plot - a film theme or story line involving events or experiences of a central character.

"Voice-Overs" - third person soundtrack narration explaining the events depicted on the screen.

Visual Dominance - primary use of visual elements to communicate the message.

Propaganda Principles - techniques purposely employed to manipulate the message receiver's behavior by distorting or deliberately exaggerating the characteristics of the message, the source, and the channel.

Psychological Pauses - the period of time immediately following a major event on the screen which allows for a mental "settling-down".
**Reinforcement** - content reinforces, confirms, stimulates, or extends previous knowledge and attitudes.

**Vicarious Reinforcement** - viewer is reinforced through the identification with a story character who is reinforced.

**Repetition** - the same or similar instructional behavior or action occurring more than once in a given film, sometimes in the same form or sometimes with variations.

**Source/Receiver Discrepancies** - a difference in knowledge, attitudes, or behavior between the message source and message receiver.

**Summary**

A review of the "state-of-the-art" in instructional film design indicated a need for continued exploration of the elements of film structure. Specifically, the affective nature of the film experience was explored. Insights into the characteristics and configurations of instructional behaviors and production elements determined a groundwork for developing hypotheses for future research. The ends sought through the present investigation were guidelines for instructional film designers.
CHAPTER II
RELATED RESEARCH AND THEORY

INTRODUCTION

Two outstanding secondary sources of synthesized research were found: Hoban and van Ormer (1950) and McGuire (1969). Hoban and van Ormer categorized and drew conclusions from instructional film research spanning the time between 1918 - 1950. McGuire's synthesis of social psychology literature on attitudes and the nature of attitude change appeared to encompass the significant research findings up to 1969. Primary sources from Hoban and van Ormer were pursued as they related to attitudes. Primary sources from McGuire were read first-hand if they pertained directly to media.

After an intensive literature review, several categories of data appeared relevant as sections of this chapter. The first section cites some of the classic studies done on the effects of media and mass communication on attitudes and opinions; and summarizes the influence of media in the affective domain.
Since many research studies pursue communication influences on select aspects of attitudes, separate sections appear on attitudes, motivations, opinions, and values. They are organized according to the quantity of research data, the most data being available on attitudes and the least on opinions and values. Related literature and theory on attitudes is categorized according to source, message, channel, and receiver variables.

Propaganda principles and advertising strategies follow. These sections cite the main resources in each field, as the content relates to media.

Some researchers and film experts have indicated direct design implications for film production to influence attitudes. Although these appear in a separate section, design questions and implications are identified throughout.

Comments on research methodology also appear throughout. However, two particular problems in methodology justify a separate section to explore their ramifications. One problem stems from the generalization of mass communication field studies to direct communication laboratory studies. A second problem relates to the use of analysis of variance statistical techniques in situations where there is multiple variable interaction. The use of research results by film producers is also explored.
INFLUENCE OF MEDIA IN THE AFFECTIVE DOMAIN

Emotional response to media was addressed by Madsen. He says, "People are influenced by printed matter and by motion pictures and television. They are influenced to laugh, to cry, to become angry, and to become bored" (1968, p. 33).

To date, no other broadcast has produced a panic comparable to the one on the evening of October 30, 1938 when the Columbia Broadcasting System and its affiliated radio stations presented Orson Welles and the Mercury Theatre on the air in "War of the Worlds" by H. G. Wells. Cantril (1952, pp. 56 and 67) states, "Both the form and the content of the broadcast seemed authentic. As one listener put it 'I just naturally thought it was real. Why shouldn't I?'" Almost 12,000,000 persons heard the broadcast and about 200,000 became excited or panicked. Childs (1965) indicates that the electronic mass media are not merely targets of influence, but channels of influence. The problem is determining with much precision what that influence is (p. 217-218). Childs (1965) lists some of the general areas of mass media influence to include: consumer buying, social change, political effects, effects on children, cultural tastes, entertainment and education (p. 219).

Crosby (1968) further discusses the influence of media: "Man sees what he has been socialized to see, and one of the most forceful agents of socialization is media. Media conditioning serves to equip man with an unconscious filter for sifting experience 'inputs'" (p. 155).
Crosby (1968) quotes, "McLuhan calls media 'macro-myths'
since they make believable the contents they transmit (p. 157).

It has often been said by film producers that the world is
so disorganized that the screen organizes it into believable form.
Roberts (1971) states "Communications do not directly mediate
overt behavior. Rather, they tend to affect the way a receiver
organizes his image of the environment, and this organization in­
fluences the way he behaves" (p. 361).

Roberts (1971) cites Schramm (1954), Bauer (1964) and
Hovland (1959) to support the concept that mass communications are
not omnipotent in terms of controlling the minds and behavior of
members of the mass audience (p. 376).

Roberts (1971) cites Klapper (1960) who reviewed much of
the existing research on the effects of mass communication and
concludes, "Rather than radical reorganization of the way an indi­
vidual organizes his image of the world, the most likely effect of
mass communication is maintenance of the status quo. On the other
hand, mass communications may have a great deal to do with how we
structure the world over the long term, and with how we organize
new aspects of the image and form new opinions and beliefs" (pp.
376-377).

There is a good deal of evidence that both children and
adults learn behaviors, norms and attitudes from film and television
mediated presentations.
Gerbner (1978) presented his studies on violence in television and reported an average of 10 violent acts per hour. He found that violent acts create anxiety.

Flanders (1968) listed a number of behaviors which follow viewer observation of symbolic models. Included are problem-solving, moral judgment, altruism, and aggression.

Siegel (1958) found that the role expectations of naive second-graders was affected by a dramatic radio presentation.

Bandura (1963) has shown that children are equally likely to show such behaviors whether they observe a live or film-mediated model.

Peterson and Thurstone (1933) administered "attitude scales" to children two weeks before and a day after a selected motion picture. They discovered significant changes in attitudes on subjects such as negroes, Chinese, gangsters, war and gambling. The new attitudes tended to be long-term with re-testing from ten weeks to nineteen months, with only a slight return to the position held before the picture. Results were also cumulative indicating that "two pictures, neither of which has a significant effect on attitude, may have such an effect on the attitudes of a group who see both pictures" (p. 65).

The Peterson and Thurstone studies were one of a dozen monographs published in 1933. The series of studies were funded by the
Payne Fund right before movies acquired sound. The Payne studies were aimed to estimate the influence of motion pictures on children. Charters (1933) summarized the studies in *Motion Pictures and Youth*. In summary, the Payne Fund research suggests that motion pictures have effects upon knowledge, attitudes, emotions, and behavior but not in an unequivocal fashion. The major findings have been grouped by categories:

**Knowledge**

General information to children and adults increased to a considerable extent by correctly presented information. Information presented incorrectly was frequently accepted as valid unless the incongruity was quite apparent. Therefore, films are both a source of information and misinformation. What is remembered depends to a certain extent on audience interests.

**Attitude**

The results were age and situational dependent. The conclusion was that motion pictures can change some attitudes, and leave others unaffected; and influence some individuals, and not others.

**Emotions**

Although not dramatic, motion pictures produced emotional responses as measured by changes in heart and respiratory rate and functioning of the autonomic nervous system. Children themselves also reported responses. There was an increase in sleep movements.
Behavior

"Cause" and "effect" relationships could not be demonstrated. However, it was concluded that motion pictures may affect behavior as a contributing factor.

General

Retention of specific incidents of motion pictures was high. Action was remembered best when concerned with a high emotional appeal and when occurring in a familiar type of surrounding. Plot portions were remembered better after the first day than incidental details which increased over time.

Schramm and Roberts (1971) conclude, "Suffice it to say that there is convincing experimental evidence that the mass media and their messages, particularly television to which the child has very early access, can influence the way children organize their image of the world, at least over the short term" (p. 385).

According to Schramm and Roberts (1971) "what people bring to the media interacts with what the media bring to people" (p. 392). "Variations in numerous factors relating to every aspect of the communications relationship have been shown to mediate the effect of a communication upon members of the audience. The effectiveness of the form of a message changes as various characteristics of the audience change, and the effect of the message depends on this interaction " (pp. 396-397).
Studies cited by Doob (1948) were made of men's reactions to a series of films called "Why We Fight" which sought to give the American version of why and how this country entered World War II as well as of the principles behind the conflict (p. 518). The knowledge of the soldiers was clearly affected by the motion pictures. Soldiers had a strong tendency to learn what the procedures of the films wished them to learn. Nine weeks after the pictures few soldiers remembered what they had learned. Attitudes were affected even less. The film affected knowledge without affecting attitudes, and the effect on attitude, when present, was smaller than that on knowledge. The effect on attitudes fluctuated in different soldiers suggesting that reactions may be delayed and that learning of a general attitude may require time. The findings suggested that motion pictures can lay the psychological groundwork for certain types of action without inducing that action.

Dale cites a survey on the effectiveness of World War II films on soldier's attitudes (1950, p. 85). The survey revealed that attitudes developed by the motion picture are measurable and have remarkable staying power. Another survey on men who saw the film the "Battle of Britain" revealed that 70 percent believed the British would have been conquered except for determined resistance, while only 46 percent who did not see the film held this belief. The film further demonstrated that men who like a film are more influenced by it.
Sanderson (1968, p. 357) states that research on the capabilities of media of influencing motivation, attitudes, and opinions indicated that the film medium is as effective as any other medium. One would assume that what Sanderson means is that researchers haven't been able to measure any significant difference in the influence of different media on attitudes.

Wagner (1977) states that the focus of media on attitudes is "to get people in a receptive mood; if the message is not obvious, the more likely it will generate mood". An example is Hitler's "Triumph of Will". Another example cited by Wagner was Kate Smith's efforts to promote war bonds. In one evening, millions of dollars of bonds were sold; not necessarily because persons wanted to support the war effort, but because Kate was a "nice person".

According to McGuire (1959, pp. 175-176) the scope of social influence situations spans a wide variety of attitude research studies. The more widely used situations are: suggestion situations, conformity situations, group discussion situations, persuasive messages, and intensive indoctrination. All of these influencing situations have the possibility of attitude change. McGuire suggests that the most practical use of 16 mm film (media) influence appears to be in the realm of persuasive messages. Although McGuire appears to be directing his comments on 16 mm film influence as film is used in mass public communication, one can derive the hypothesis that one of the best uses of 16 mm film attributed instructionally is to influence attitudes.
May and Lumsdaine (1958) identify three possible effects of a film on attitudes: changing attitudes in a socially desirable direction, or undesirable direction, or reinforcement (p. 243). The balance toward a socially desirable direction, or reinforcement seems to be a fine line. The question is what film elements influence attitudes in a positive direction.

Doob (1935, pp. 376-377) states that there is little cause for surprise that motion pictures change people's attitudes. Doob said that once a child or adult has entered the theatre, he is bound to be affected by the film. Doob related this to the principles of propaganda as follows:

"In the first place, he will want to watch everything that is happening (2a. Perceptual Principle of Auxiliary Attitudes). It is almost impossible for him to avoid the picture; the darkened room, with the screen as the only point of illumination, compels him to be oriented toward that screen. American investigators have emphasized the degree to which a motion picture stirs an audience, especially children. This empathic state of Mitspielen or this nervous excitement polarizes the mental field in the direction of the story; suggestibility is consequently increased; and the propaganda received during this period will probably have a lasting effect, as Peterson and Thurstone have shown. Then, because of large-scale distribution, motion pictures are produced in such a way that the illiterate can understand them (2c. Perceptual Principle of Simplification). Even though the spectator knows that the cinema story has been produced in the studio, it will be difficult for him not to attribute to the picture a certain degree of reality; in short, motion pictures, like newspapers or magazine photographs, have prestige.
The patron of the cinema, furthermore, is being stimulated simultaneously by other spectators, i.e., by their mere presence and their expressions of approval or disapproval; this social situation may promote an impression of universality which will render him more suggestible (6a2. Principle of the Impression of Universality). Finally, the cinema, like the newspaper, will probably be many people's only source of information concerning the somewhat bizarre features of contemporary life which the producers see fit to display. In this way their perception of and consequent stereotype concerning aspects of their milieu is limited by the producers' conceptions of what they should see (6d. Principle of Limitation). The movie devotee, in short, is submitting himself voluntarily to a force which he may not be able to resist.

Data seem to confirm that only a few, if any, specific attitude changes will result when the film strongly contradicts social norms. In fact, contradictory film bias may reinforce the existing attitude.

Tentative conclusions inferred by Hoban and van Ormer (1950) from data on the influence of specific motion pictures on general attitudes were:

1. The attitudinal influences of a single motion picture appear to be specific, rather than general.
2. The cumulative effect of a series of motion pictures is probably general, but the effect is subject to the following conditions:
   a. The films are all biased in the same direction and are consistent with the general predisposition of the audience.
b. They are exhibited in a context that supports and reinforces the direction of the bias.

c. The exhibition of the films is spaced over a period of time (pp. 5-18).

These conclusions seem to be in accord with those on the influence of motion pictures on opinions.

ATTITUDES

Introduction

Hoban summarized knowledge from film research by quoting McKeachie's 1967 principle that instructional film learning is not confined to details, but may include concepts and attitudes (1971, p. 21).

Gagné (1974) addresses how attitudes are learned. Reinforcement during the feedback phase of learning is critical, according to Gagné, in the establishment or modification of an attitude (p. 88). To complete the act of learning, the expectancy activated during the motivational phase of learning must be confirmed. Modification of attitudes usually depends on a successful experience following a personal choice of action (p. 105).

Gagné (1977, pp. 243-246) identifies three major kinds of learning situations that have been extensively studied as producing attitude learning: (1) classical conditioning, (2) perception of success in behavior, and (3) human modeling.
Numerous studies have demonstrated that conditioning of the classical pairing of stimuli (Pavlovian) can produce learned emotional reactions to stimuli. Operant conditioning with manipulation of reinforcement contingencies has also been used as a method for learning attitudes. It appears that favorable attitudes arise from the experience of success (which is itself dependent upon reinforcement).

Gagné (1974, p. 87) indicates that attitudes may be learned in a "direct manner"; for example, as the result of a successful experience; or in an "indirect" manner, as by observing or identifying with a human model. In both cases, reinforcement of the student's experience will affect the attitude.

Gagné (1974) cites Bandura in 1969 and 1971 as identifying the steps in instruction for attitudes when a human model has been selected. First the learner observes the human model making desirable choices of action and taking pleasure from the action or gaining success in it. Finally, the learner, through observation, is reinforced 'vicariously' which increases the possibility that he will choose a course of action similar to the model (p. 88).

According to Gagné (1974), an essential part of learning an attitude is the learner choosing the action and then executing the behavioral performance. The strategy in human modeling is to display the choice of action to the learner and then show or describe the model's behavior in making such a choice (p. 89).
Obviously the external events in the learner's environment may strongly influence this process.

Gagné (1974, p. 29) refers to the processes of learning and indicates that although processes are not directly observable, they nevertheless can be influenced in a learning situation. Therefore, events may be designed and made to happen which affect the learner's motivation, his attention or any other processes in the learning act.

Attitudes require that certain prerequisite capabilities be present in the learner, according to Gagné (1977). These are primarily intellectual skills of the concept nature and a certain relevant information. Gagné calls these "internal conditions", and identifies three major concepts: concepts regarding the class of object, event, or person to which the new attitude is directed; concepts related to human modeling; and concepts pertaining to the personal action to which the attitude relates. Gagné added that relevant information pertaining to the situations in which choices of action are likely to be made is also an important prerequisite (p. 250).

Cartwright (1971, p. 429) states that to influence behavior a chain of processes must be initiated within the person. These processes are complex and interrelated. In broad terms they are characterized as (1) creating a particular cognitive structure, (2) creating a particular motivational structure, and (3) creating a particular behavioral or action structure. Cartwright says,
"Behavior is determined by the beliefs, opinions, and facts a person possesses; by the needs, goals, and values he has; and by the momentary control held over his behavior by given features of his cognitive and motivational structure. To influence behavior 'from the outside' requires the ability to influence these determinants in a particular way" (p. 430).

Cartwright defines cognitive structure as the content and relationships among parts of a person's psychological world that influences the nature of the person's behavior. Psychologists accept the truism that a person's behavior is guided by his perception of the world in which he lives.

Cartwright (1971, pp. 430-437) states the following principles that pertain to the prerequisites for mass media to modify cognitive structure:

1. The message (i.e., information, facts, etc.) must reach the sense organs of the persons who are to be influenced.
   1a. Total stimulus situations are selected or rejected on the basis of an impression of their general characteristics.
   1b. The categories employed by a person in characterizing stimulus situations tend to protect him from unwanted changes in his cognitive structure.

2. Having reached the sense organs, the message must be accepted as a part of the person's cognitive structure.
   2a. Once a given message is received it will tend to be accepted or rejected on the basis of more general categories to which it appears to belong.
2b. The categories employed by a person in characterizing messages tend to protect him from unwanted changes in his cognitive structure.

2c. When a message is inconsistent with a person's prevailing cognitive structure it will either (a) be rejected, (b) be distorted so as to fit, or (c) produce changes in the cognitive structure.

Cartwright (1971, pp. 438-442) indicates that efforts to influence another person's behavior must attempt to either modify needs (and goals) or to change the person's motivational structure as to which activities lead to which goals. The following principle is stated:

"3. To induce a given action by mass persuasion, this action must be seen by the person as a path to some goal that he has.
3a. A given action will be accepted as a path to a goal only if the connections fit the person's larger cognitive structure.
3b. The more goals which are seen as attainable by a single path, the more likely it is that a person will take that path.
3c. If an action is seen as not leading to a desired goal or as leading to an undesirable end, it will not be chosen.
3d. If an action is seen as leading to a desired goal, it will tend not to be chosen to the extent that easier, cheaper, or otherwise more desirable actions are also seen as leading to the same goal."

Finally, Cartwright (pp. 442-445) identifies a principle to create the desired behavioral structure:
4. To induce a given action, an appropriate cognitive and motivational system must gain control of the person's behavior at a particular point in time.

4a. The more specifically defined the path of action to a goal (in an accepted motivational structure), the more likely it is that the structure will gain control of behavior.

4b. The more specifically a path of action is located in time, the more likely it is that the structure will gain control of behavior.

4c. A given motivational structure may be set in control of behavior by placing the person in a situation requiring a decision to take, or not to take, a step of action that is a part of the structure.

Cartwright derived the above principles from a more extensive theory of human motivation, and to the extent that they are valid, suggested that they apply to inductions, particularly mass media. Cartwright concludes that only when conditions are proper in respect to the cognitive, motivational, and behavioral structures will the actual induction of behavior occur.

Hayman and Sheatsley (1971, p. 461) concur that there is abundant evidence in all fields that informed persons react differently than uninformed persons. However, they caution against suppositions that information always affects attitudes.

McGuire (1969, pp. 161-165) indicates that effects on attitudes are subject to several factors such as genetic (inherited aggression), hostility level, level of general persuasibility, and
physiology (aging, illnesses, certain pharmacological and surgical intervention, deprivation states).

Hayman and Dawson (1968, p. 41) speak to the development and modification of attitudes through educational media, indicating that there is no longer any doubt that attitudes can be changed. They caution, however, that modifying attitudes is a long-term affair; and cite Fishbein and Hunter's conclusions in 1964 that the effects of several related messages tend to summate so that the greatest attitude change comes from continually adding information.

Single incidents appear to alter attitudes only in isolated situations. McGuire (1969, p. 166) reports that either single or repeated direct experiences with the target object can determine attitudes. He adds however, "The evidence for believing that single traumatic incidents can change attitudes profoundly is of the anecdotal or case-history type - suggestive, if not convincing. These conjectures regarding the effect of single salient experiences in the determination of attitudes suggests that there may be times of life when the individual is particularly likely to 'imprint' on particular attitudes as a result of direct confrontation".

Realistically, total attitude changes are not usually possible. Hayman and Dawson (1968, p. 41) quote Klapper as saying "attitude changes consist more often of modifications than of conversions". Individualization of attitude modification instruction is imperative
in light of research data that shows effects differ according to level of knowledge, past experience, ability levels, goals, and prior attitudes.

Hayman and Dawson (1968, p. 42) report that attitudes differ in susceptibility to change, and situational factors will govern the need for different approaches. They state that change is easier when intensity rather than direction is at stake. The degree of internalization of the attitude also determines its susceptibility to change. McGuire indicates that frequent direct contact with the object can have considerable impact on one's attitude toward that object, but perhaps by intensifying it rather than by changing its direction (1969, p. 167).

Expressed attitudes and behavior do not always coincide. Although attitude change may be expressed, Travers (1963, p. 373) states that many expressed attitudes bear little relation to behavior.

In discussing the role of verbal communication in determining attitudes, McGuire (1969, p. 172) employs the terminology of source, message, channel, receiver, and destination. He employs a concept similar to Lasswell who in 1948 analyzed the communication problem in terms of "who, says what, to whom, how, and with what effect". McGuire's conceptualization is relevant to this related research and theory and is employed organizationally in this chapter.
Attitude Source Variables

Credibility

According to McGuire (1969, p. 179), credibility, attractiveness and power seem to be the characteristics of the perceived source accepted by theorists as adding to the persuasive impact of the message.

Credibility appears to operate in the psychological mode of internalization. That is a mode of attitude change based on the person's motivation to have some objectively verifiable 'right' stand on the issue.

McGuire (1969, p. 180) cites a study in 1953 by Hovland, Janis, and Kelley in which they found that manipulating source credibility affected the amount of attitude change but not the extent of learning the sources' arguments. A study by Bauer in 1965 is cited by McGuire (1969, p. 180) as hypothesizing that so long as the person knows whether the source is high or low in credibility, he will often evaluate the conclusion without paying attention to the arguments used.

Garry and Kingsley (1970, p. 505) identify three aspects of the credibility of the communicator: the communicator's prestige, his acknowledged expertise, and the sincerity with which he presents his case. Communicators vary in their degree of familiarity and acceptance. The credibility interacts with other conditions
to produce differential effects. Thus, friends can often be more persuasive than strangers, when exposure to highly credible, yet unfamiliar communicators occurs.

Hayman and Dawson (1968, p. 45) conclude that in general the higher the credibility of the source, the greater the effectiveness of the communication in changing attitudes. Credibility can be interpreted in a number of ways: by one who is impartial and trustworthy, by an expert, by one with great prestige, by a person whose intent is to inform versus manipulate, or by a person similar to the receiver in some way.

Hovland, Janis, and Kelley (1953, p. 21) distinguish two bases for credibility: expertness (credibility because one knows the truth); and trustworthiness (credibility because one tells the truth).

Cantril (1952, p. 70) studied the mass panic resulting from the Orson Welles' broadcast of the "Invasion from Mars". He reports that the prestige of the speakers as experts facilitated the believability of the message. Cantril further reported, "The events proceeded from the relatively credible to the highly incredible, but as the less credible bits of the story begin to enter, the clever dramatist also indicates that he too has difficulty in believing what he sees" (p. 73).
It appears to Hayman and Dawson (1958, p. 46) that the greater the change in attitudes advocated, the greater the change which will occur as long as the person advocating the change has high credibility. The greater the change advocated by a less credible source, the more resistance to the message. Since a person's behavior is regulated considerably by expectations of approval or disapproval within his social climate, a communicator can gain credibility by being perceived as representative of the social climate.

Travers (1963, p. 387) concludes that while many studies have data to indicate that attitude toward the communicator is a vital condition for attitude change, the concept is vague since no major attempt has been made to discover essential components. Travers cites one supporting study in 1957 by Scallon in which films designed to change attitudes were shown with commentators who varied from one another in prestige. Some of the films with a prestigious commentator produced significantly more attitude change than the same films with anonymous narrators.

The source has the power to apply sanctions and observe compliance, conformity will usually ensue publically; but generally only temporarily, until the power source subsides in its influence. McGuire (1969, p. 194) reports that power, as a component of source valence, can lead to overt compliance which under most conditions
tends to be internalized and therefore can result in as profound an ideological change as persuasion brought about by credibility or attractiveness. Three contingencies appear to determine the extent a person goes along with the source as far as publicly observable overt compliance is concerned: the appraised extent to which the source can administer positive or negative sanction (perceived control); the estimated concern the source may have regarding conformity (perceived concern); and the judged likelihood that the source will be able to observe his position (perceived scrutiny). Of course, power as an internal design factor is not plausible.

McGuire (1969, p. 194) cites a study by Katz and Lazarsfeld in 1955 as concluding that almost invariably in natural social settings, persons are more influenced by peers than by superiors or experts. This is consistent with Klapper (1960) who says that highly specialized sources appear to be more persuasive for their own specialized audiences than are more general sources for the same audiences (p. 129).

Differing Dimensions

Hovland, Janis, and Kelley in 1953 are cited by McGuire (1969, p. 180) as demonstrating that the amount of attitude change can be varied by indicating message sources that differ on dimensions such as knowledge, education, intelligence, social status, professional attainment, age, etc.
Hard Versus Soft Sell

McGuire (1969, p. 180) indicates that some findings conclude that a dynamic, hard-sell language delivery produces more suspiciousness of the persuasion and therefore less opinion or change than a subdued style. Other researchers have pointed out the danger in a subdued, low-intensity style that is perceived as low credibility and expertise and hence will produce less opinion change.

Soft-sell, which masks the intent to persuade and gives an appearance of objectivity may decrease opinion change through failure to communicate the sources point according to McGuire (1969, p. 186). This notion is supported by research that indicates presenting all the evidence, but leaving to the listener to draw the obvious conclusion does not produce more immediate opinion change. Perhaps the more subtle implicit-conclusion approach catches up over time, concludes McGuire citing McGuire in 1960 and Statland, Katz and Patchen in 1959.

Identification, Attractiveness, and Modeling

A position advocated in a film can change attitudes. Allen (1956) cites a study by Fearing in 1950 that found that films for naval trainees and college students on venereal disease and malaria were effective in changing attitudes to concur with the film's position. The concepts of identification, attractiveness and modeling can be precipitating factors.
Attractiveness according to McGuire (1969, p. 187) deals with the subject's motivation to attain a gratifying self concept though his position on the issues "vis-a-vis" the position advocated by the source. McGuire says, "The crucial point for the subject in adopting the position urged by the source is whether he can enhance his self-esteem through his identification with the source" (p. 187). Attractiveness of the source (receives similarity to, familiarity with, or liking) underlies the identification mode of attitude change. The receiver is motivated to establish a gratifying role relationship to the source. To the extent that the source appears attractive, the receiver may adopt the source's position (p. 180).

There is considerable evidence that a person is influenced by a persuasive message to the extent that he perceives it as coming from a source similar to himself.

Mager (1968, p. 63) summarizes some of the conclusions reached by Bandura's research reported in 1965 and 1967:

1. Students learn more by imitation if the model has prestige.
2. The student will perform more of what he has learned if he has seen the model being reinforced rather than punished for that performance.
3. When a student sees a model being punished, the student will tend not to engage in the kind of behavior that was punished.
4. When a student sees a model doing things he shouldn't do (transgressions) and there is no aversive consequence to the model, there is an increase in the probability that the student will do those undesirable things.
Mager paraphrases Dr. Bandura as saying, "If it weren't for the fact that we learn a great deal by imitation, there probably wouldn't be as many of us as there are; if we had to learn everything through trial and error, or by making responses and then having them corrected, a lot fewer of us would survive" (1968, p. 62).

Cooper and Dinerman (1951, p. 256) recognize "Artists, authors, and producers have long known that one of the most effective methods of awakening and sustaining audience interest is to ensure that members of the audience identify with the characters depicted, and thus participate emotionally in the story at hand".

Weiss (1954, p. 98) states that identification is the key concept in discussions of the general effects of mass communications and media. It seems central to interpretation of media's role in vicarious experiences. The appeal of heroes and attractiveness of personalities suggest its significance. The psychological relationship that occurs when a person is attracted through sentiments toward a "story" character pulls the person into that world of communications.

Since identification cannot be observed directly, Weiss (1954) suggests that evidence concerning it is obtained by measuring overt behavior which on supposition appears to be linked (p. 99). In terms of sex as a characteristic, Weiss says, "In view of the significance of sex typing in society, similarity of sex should afford a basis for identification" (1954, p. 99).
Allen (1956, p.127) cites Kishler and Mertenson on audience identification factors and 16 mm attitudinal influence. Kishler studied audience attitude and identification with a Catholic Priest in "Keys of the Kingdom". The film seemed to have more effect upon the tolerance attitude of those with an initial high regard, than a low regard. A study by Mertenson on the effects of mental hygiene films on university freshman women indicated that the least well-adjusted women showed the greatest emotional involvement with the films, and that those who had problems similar to those discussed in the film reacted more strongly and remembered longer.

Nearly twenty years ago, Hoban investigated character roles in film as models with whom the audience can identify, admire, or tolerate. In this decade, Hoban (1971, p. 24) reports that this area of research has been overlooked. He points out the importance today as follows, "As instructional films depart from their voice-over techniques and present the live-recorded verbal interactions of characters in contextual settings, the problems of casting, direction, acting, and role assume importance beyond cinematic technique to audience response patterns".

Hoban (1971, p. 25) cites an exploratory study in 1953 in which he found evidence to infer the following two hypotheses:

1. Audience involvement and positive identification reactions to instructional (social reality) films are determined more by audience aspiration than by audience status at the time and under the circumstances of the film-viewing situation.
2. Audience aspiration to model roles presented in instructional films is determined by the ratio of the value of achieving the aspired role to the value of the effort necessary to this achievement, assessed at the time and under the circumstances of the film-making situation.

These hypotheses were the opposite of those expected prior to the study. Two other studies by Hoban (1971) suggest that status, either in education or in the military, is related to responses to roles portrayed in training films (p. 26). Hoban (1971) says, "If in the area of instructional films such response areas as like-dislike, acceptance-rejection, identification with models, and of role characterization and behavior are to be of concern, it is evident that audience variables and casting, acting, and directing interact. These are in the affective domain and are likely to have at least a secondary relationship to learning" (p. 26).

Liking of Source

McGuire (1969, p. 191) summarizes eight research studies to support "the old adage about the good man - that to know him is to love him". McGuire concludes that we have considerable evidence that interpersonal liking increases with amount of contact and closeness of contact. McGuire finds a certain amount of evidence that the more the subject liked the source of the persuasive message, the more he would change his belief toward the position the source is advocating. The relationship between being liked by peers and adherence to group norms is admittedly complex (pp. 192-193).
Style Factors

McGuire (1969, p. 207) concludes based on several research studies, that the general skill or style of the speaker has not proved to be a very powerful determinant of his persuasive effectiveness.

Another research factor on style is comparing dynamic versus subdued styles of presentation: ("intensity of delivery" variable). McGuire (1969, p. 207) cites evidence that the dynamic presentation appears less effective in producing attitude change and more likely to be labeled "propaganda". However, high intensity metaphorical conclusions seemed to produce significant attitude changes.

Humor in persuasive communication has received little theoretical or empirical attention. Scant work cited by McGuire (1969, p. 208) indicates that it is not persuasive.

McGuire states that the style factors: skill of the speaker, type of presentation, and humor, deserve much more theoretical and empirical research than they have received from communication researchers (1969, p. 208).

Gagne concludes, "whatever aspects of the communication may be found to be effective, a great mass of evidence indicates that these effects are overwhelmed by the influence of source" (1977, p. 249).
Attitude Message Variables

Introduction

The bulk of attitude-change research according to McGuire (1969, p. 200) has focused on message variables in four main classes: types of persuasive appeal, inclusions and omissions from the message, order of presentation within the message, and source-receiver discrepancy.

Types of persuasive appeals include, (1) "ethos, pathos, logos"; (2) fear, and (3) internal and external reinforcement.

Persuasive Appeals

Ethos

Persuasive appeals that concentrate on the source rather than the message are referred to as "ethos" appeals. This research is already reported under Source.

Pathos

If an argument creates the appropriate feelings in the receiver by appealing to his feelings, values, or emotions, it is said to use "pathos". McGuire (1969) cites ego-defensive functional theorists as stating that the individual's attitudes are held in order to protect or bolster his self-concept and support his view of the world (p. 201). The empirical status is doubtful. Another type of pathos appeal is to put the receiver in a pleasant mood while receiving the message.
Logos

Logos appeals require the receiver to deduce the position being urged from a general principle which he accepts or from empirical evidence accepted by means of logical argument. There has been little research interest in logos. The research distinguishing between logos and pathos appeals to lack validity, according to McGuire (1969, p. 202). To confuse research on these persuasive appeals further, content and message source influences are hard to distinguish.

Some writers claim that suggestion "releases" attitudes. Doob (1935, p. 54) quotes Allport as believing that attitudes can be "formed" through suggestion: "It is clear that suggestion results from the manipulation of stimulus-situations in such a way that, through the consequent arousal of pre-existing, related attitudes there occurs within the mental field a new integration which would not have occurred under different stimulus-situations".

MacLennon and Reid (1964, p. 24) indicated a factor in course-related attitudes to be the perceived usefulness of the information. They report that students believe material is going to have early use or will be subject to testing at one early date, they tend to learn more than students who do not have these attitudes.

The relationship of attitude to information which incorporates a distinction to "information known" (person is aware of information
but doesn't know whether it is true or relevant) and "information accepted" (information accepted as truth) is extremely complex as cited in Peak and Morrison, 1958 by Travers (1963, p. 386).

According to Hayman and Dawson (1968) the information approach is a valid approach to attitude modification through the use of media. They cite several writers who profess that the first essential in any communication act is to gain and then hold the attention of the intended receiver. The receiver must then understand the message and finally accept it for the intended effect to be achieved. Possible techniques to use in transmitting the message include fear arousal, the drawing of conclusions, one and two-sided approaches, and primacy and recency effects (p. 43).

Fear and Anxiety

Fear appeals says McGuire (1969, p. 203) are interesting and provocative in that on one hand, fear is recognized as a drive state and drive tends to multiply tendencies to respond, and on the other hand, fear or anxiety is also a cue that tends to elicit responses such as hostility that interfere with adequate message reception. McGuire (1969) cites Janis and Feshbach's study in 1953 that demonstrated that minimal fear arousal in connection with one's recommendations was more effective than high fear arousal in producing attitude change and resistance to subsequent propaganda.
Feshbach and Jones (1951) researched anxiety producing film and learning. The findings suggest that a strong drive is uncomfortable so that reduction by any means is sought. Anxiety is an unreliable motivator since fear may lead to forgetting.

McGuire (1969) reports that subsequent work has only occasionally supported their findings with marginal significance levels. More frequent highly documented findings on fear appeals have found predominantly positive relationships; the higher the fear arousal the greater the opinion change (p. 203). McGuire (1969) cites subsequent research studies that show interactions between level of fear arousal and attitude change (p. 204). It therefore seems that a given independent variable often affects attitudes and behavior quite differently.

Hayman and Dawson (1968, p. 44) cite specific research studies to support the following conclusions. Immediately after arousing tension, the communicator's recommendations should be stated, since following them reduces the tension. A high level of tension reduces the appeal since the subject eliminates the threat by discounting it through a psychological defense reaction. Therefore, a moderate rather than maximum arousal of fear should be employed.

Levonian (1968, p. 57) says, "Arousal during learning is related to both short-term (minutes after learning) and long-term (days after learning) retention of the learning material. The intensity
of the arousal, not whether it is pleasant or unpleasant, appears to be the important parameter".

Findings cited by McGuire (1969) support the hypothesis that a higher level of fear arousal produces more attitude change as the subject's chronic anxiety level decreases (p. 205). McGuire (1969) predicts that a higher level of fear arousal is optimal as the simplicity and clarity of the persuasive message increases. Further research, such as done on media by Frandsen (1963) needs to be done for clarification.

The work on fear appeals seems to indicate that simple relationships are unlikely to be found in the attitude-change area.

Frandsen (1963, pp. 101-103) examined the interrelations of taped, televised, and live presentations of two messages with different levels of threat appeal. He used Hovland, Janis and Kelley's book *Communication and Persuasion (1953)* to define threat appeal as "those contents of a persuasive communication which al­lude to or describe unfavorable consequences that are alleged to result from failure to adopt and adhere to the communicator's con­clusions". Frandsen hypothesized that the degree to which threat references are personalized interacts with the degree to which communication is personalized, i.e., the physical closeness of the speaker to the audience. He based the hypothesis on evidence concerning the differential effects of various transmitting media
cited by Wilke, Sawyer, Brondon, and Hartman. Frandsen acknowledged the suggestions of Hovland that the success of a communication using threat appeals is dependent on the level of emotional tension aroused that depends on the extent to which the threat appeal is personalized. He cited studies by Janis and Milholland and Janis and Feshbach that indicate acceptance of the communicator's position may decrease if the threat is too highly elaborated, but that the information recall does not vary as a function of the threat strength. The criteria he used for effectiveness in the experiment were "shift of opinion" and "immediate recall". Findings indicate that none of the six possible combinations of media and threat level were significantly different. However, data support that all three media produced significant opinion shifts toward communicators position with significant immediate recall; both levels of threats produced significant opinion shifts and recall; and none of the combinations were significantly greater.

Belson (1956) reports that a program to prepare the English television viewer for a trip to France produced an increase in viewing knowledge of the words and phrases, and of the facts presented, but an accompanying increase in apprehensions about language difficulties and visiting France in general. It is suggested that an increased apprehension is a hazard in an educational broadcast of this kind to a mass audience (p. 38).
Repetition

Hoban (1946, p. 94) identified the use of film repetition. Hoban suggested, "Scenes and sequences that show complicated action or operations, or that have an emotional as well as intellectual fascination for the audience, should be deliberately repeated in the film to ensure adequate psychological absorption". Hoban also advised that major sequences should be followed by a psychological pause on the screen in order for a mentally "settling-down". Hoban justified this suggestion based on retroactive inhibition which involves the inhibition by present activity of memory of previous activity. If scenes and sequences are swiftly paced, the attention to the immediate scene tends to inhibit the previous scene with a resulting retention loss. Hoban says, "Retroactive inhibition, induced by too rapid presentation of scenes and sequences, offers an explanation of why students sometimes appear to be more confused than enlightened by the showing of a particular educational film" (1946, p. 94).

Repetition of the persuasive message overwhelmingly facilitates attitude change, as documented by McGuire (1969, p. 211). McGuire comments that what is so remarkable about work on repetition is not so much that a certain amount of repetition facilitates attitude change, but that the asymptote is so quickly reached.

Weiss (1954) cautions against repetition citing Attneave (1959). Weiss says, "To the extent that expectancies generated by a
schema are borne out repeatedly, the amount of 'information' contained in a type of communication will be reduced. This will weaken people's inclination to expose themselves to repetitions of the same or similar communications, if the story line is the main feature attracting and holding attention" (p. 93). Weiss suggests that a slackening of interest among adults with television and film that has recurring patterns of events or relationships. Weiss' opinion seems in the minority if one considers short-term repetition, although temporal variables may explain the difference in findings. Repetition that includes a variety of approaches in a shorter period of time may have different influences than monotonous repetition over a longer time period.

Reinforcement

Hoban and van Ormer (1950, pp. 3-9) have formulated a Principle of Reinforcement as follows:

"Films have greatest influence when their content reinforces and extends previous knowledge, attitudes, and extends previous knowledge, attitudes and motivations of the audience. They have least influence when previous knowledge is inadequate, and when their content is antagonistic or contrary to the existing attitudes and motivation of the audience".

Allen (1971) states, "In general it might be concluded that films can modify motivations, interests, attitudes, and opinions if they are designed to stimulate or reinforce existing beliefs of the audience. There is, however, little evidence that films can make changes if they are contrary to the existing beliefs, personality structure, or social environment of the individual in the audience" (p. 5).
Madsen (1973) says reinforcement is nearly equal in importance to visual primacy among the factors to be considered in film communication. Madsen states, "Reinforcement has its greatest influence when its content extends and confirms previous knowledge and attitudes held by the receiver, and has the least influence when its content is outside the viewer's purview of knowledge or is antagonistic to his existing attitudes. Rarely does a single film revolutionize the established attitudes of its 'audience', for to the contrary, a film presenting content strongly incompatible with the bias of the viewer may anger him and leave him more convinced than ever of the rightness of his original opinion, a result referred to as a 'boomerang' effect. Usually, the viewer refuses to look at a film and if forced only selectively receives what supports his original point of view" (p. 9). Madsen suggests that the weight of research points to two general conclusions: A barrage of facts may be successfully transmitted, yet be ineffective in influencing the viewer whose mind is made up. Factual explicit material is readily accepted, while implicit material such as ideas is resisted or distorted when the viewer already has a position on the subject.

Hoban and van Ormer (1950), Allen (1971), and Madsen (1973) address the reinforcing potentials of film. On the other side of the issue, Knowles speaks to the need for film to be reinforced.
Knowles (1967, p. 303) cites Hovland's conclusions of 1953 that mass media can produce changes, especially in the areas of knowledge, attitudes, and values, but the changes are temporary unless reinforced; and the strength of the impact is largely influenced by the status and credibility of the communicator, the communication qualities, the audience predisposition, and the degree of participation.

Awareness of Persuasion and Approaches to Persuasion

McGuire (1969) summarizes five other lines of research to test whether perception of the source's persuasive intent and bias affects attitude change (p. 184). The variables are:

1. ignoring versus mentioning opposition arguments.
2. appearing in the context of a debate versus a noncontroverted situation.
3. explicitly drawing a conclusion versus leaving the conclusion to be drawn by the hearer.
4. using controversial versus noncontroversial issues.
5. arguing for the extreme versus the moderate positions.

The obviousness of the intent of each variable does not seem to lessen the persuasive impact; in fact, variables 3 and 5 produce more opinion change in the condition involving more obvious intent to persuade. The only evidence that perceived intent lowers persuasiveness comes from the controversialism variable. McGuire (1969) cites McGuire and Millmon (1965) as finding that more opinion change occurs on noncontroversial matter-of-fact issues than on controversial matters of taste (p. 184).
In summary, McGuire (1969) concludes, the research evidence does not support the hypothesis that sources lose persuasive effectiveness when their bias and persuasive intent are perceived by the audiences. In fact, support exists that the subject's awareness of the source's bias and intent to persuade actually increases the amount of attitude change (p. 185).

According to Hayman and Dawson (1968, p. 44) in a communication designed to modify attitudes, it is better to state explicitly the point the communication is intended to convey, especially with complex messages and also with less intelligent receivers.

Inclusions and Omissions

Implicit versus Explicit Conclusions

Overwhelming documentation cited by McGuire (1969, p. 209) indicates that persuasive messages are more effective if the source explicitly draws the conclusion than if the conclusion is left for the receiver to draw for himself.

McGuire (1969) comments, "It may well be that if the person draws the conclusion for himself he is more persuaded than if the source draws it for him; the problem is that in the usual communication situation the subject is either insufficiently intelligent or insufficiently motivated to draw the conclusion for himself, and therefore misses the point of the message to a serious extent unless the source draws the moral for him. In communication, it appears,
it is not sufficient to lead the horse to the water; one must also push his head underneath to get him to drink" (p. 209).

Weiss (1954) agrees that the effectiveness of a message in achieving a desired conclusion is more likely when the conclusion is explicitly stated (p. 112).

Hoban (1946) recognizes that a significant advance in the teaching techniques in war training films was "leaving the film open at the end". Hoban is referring to the device of suspense, the pause at a critical moment leaving the audience close to but not in possession of the resolution. Hoban says, "The truly educational film will turn the subject to the audience, leaving the audience not fully satisfied but with questions it must answer for itself, with a challenge to further inquiry, or with the obligation to "go and do in like manner". With entertainment, the audience demands action from the film. With education, the film demands action from the audience" (p. 103).

Wagner (1953) concluded that with respect to the well-designed educational film, the film will be deliberately designed to promote the finding and testing of meanings. In these films there will be more "forked-road" and "open ended" situations.

The incompatibility of the persuasive message explicit conclusion recommendations and the film design open ended recommendations, raises the question of designs for attitude change.
Communication Labeling

Travers (1972) cites Weiss' study in 1958 that indicated the mere labeling of a communication by the receiver may sometimes inhibit the change in attitude that otherwise may have resulted. He also cites a study by Hovland in 1957 in which those whose attitudes changed the most as a result of communication were those with moderate positions relatively close to that of the receiver.

The general trend of results of communication as a means of changing attitudes is that communication is most effective where it represents a position not too different from that of the receiver; as long as few social pressures are operating.

Time Factors

Certain time factors are crucial. Substantial research reported by McGuire (1969, p. 185) indicated that the warning must precede the persuasive communication by a long versus short time since there seems to be little if any retroactive effect of warning. Some evidence also indicates that subtle messages, disguising intent to persuade have delayed-action persuasive impact.

Dramatic Excellence

Cantril (1952) listed reasons for the "Invasion from Mars" broadcast frightening some people when other broadcasts did not. Characteristics of this program which aroused false standards of judgment in so many listeners included the realism of the program, the sheer dramatic excellence. Cantril elaborates, "The realistic
nature of the broadcast was further enhanced by descriptions of particular occurrences that a listener could readily imagine. Liberal use was made of colloquial expression to be expected on such an occasion" (1952, p. 72).

**Attitude Channel Variables**

**Neglected Research Area**

McGuire suggests that the neglect of research on the channels through which persuasive messages are communicated has left decision-making to intuition and folklore (1969, p. 225). Even though research may be lacking there are some strong opinions on the influence of the channel.

**Potential of the Medium**

Since the world attitudes belong in the realm of nonverbal, subconscious behavior, Hayman and Dawson (1968) say that the media which can reach these levels will be desirable. They state that media with both visual and auditory modes such as sound-motion-pictures and television would seem to be the most efficient (p. 57). According to Hayman and Dawson, "The ability to combine nonverbal stimulus materials such as music, sound effects and concrete pictorial representations with the verbal, either written or spoken, makes television and motion pictures clearly superior in attitude formation and modification . . . . Once a particular behavior pattern and its corresponding attitude have become operational,
media can play an important role in concept generalization - that is in generalizing the attitude to broader areas" (p. 58).

Hayman and Dawson conclude that available information leaves little doubt that educational media can aid significantly in the accomplishment of most attitude modification tasks. They see the development and changing of attitudes as a major concern for educators and acknowledge that there is no cut-and-dried formula for determining the exact role of media. The complexity of attitude modification involves the attitudes to be modified, the characteristics of the target group and the context within which the modification is to be accomplished. Where more passive activities are appropriate through information gain, media play the decisive role (p. 58).

Klapper (1960) says that the degree of a medium's technical efficiency of presentation techniques (camera angles, pace, etc.) may obviously affect its persuasive efficiency (p. 130).

*The Medium is the Message*

McLuhan (1964) takes the verbal position that the medium through which a message is communicated has more influence on the receiver than the actual content of the message. McLuhan says, "In a culture like ours, long accustomed to splitting and dividing all things as a means of control, it is sometimes a bit of a shock to be reminded that, in operational and practical fact, the medium is
the message. That is merely to say that the personal and social consequences of any medium - that is, of any extension of ourselves - result from the new scale that is introduced into our affairs by each extension of ourselves, or by any new technology" (p. 7). . . . "It is the medium that shapes and controls the scale and form of human association and action" (p. 9).

Crosby and Bond (1968, p. 18) quote McLuhan, "The movie, by sheer speeding up the mechanical, carried us from the world of sequence and connection into the world of creative configuration and structure. The message of the movie medium is that of transition from lineal connections to configurations".

McLuhan identifies a magical quality about film that is accepted without question. He suggests that the business of the filmmaker is to transfer the viewer from his own world to the world created by the film. It is so obvious and happens so completely that the experience is accepted subliminally and without critical awareness.

Crosby and Bond (1968) quote, "Everybody experiences far more than he understands. Yet it is experience, rather than understanding, that influences behavior, especially in collective matters of media and technology where the individual is almost inevitably unaware of their effect upon him" (p. 54).
Madsen (1973) identifies the influence the channel, in and of itself, can play. According to Madsen, ideas, persons, issues, social movements, and organizations have prestige and status with media recognition. Those who receive attention on the screen also receive respect and social standing, regardless of the validity of their views (1973, p. 9).

Lazarsfeld and Merton (1948) contend that media recognition bestows prestige and authority. They say, "The audiences of mass media apparently subscribe to the circular belief 'If you really matter, you will be at the focus of mass attention and, if you are the focus of mass attention, then surely you must really matter'" (p. 95).

The Medium is Not the Message

Worth (1974) disagrees. He says, "Meaning does not exist within a reel of acetate. The viewer must recreate it (receive it, or decode it) from the forms, codes and symbolic events in the film" (p. 285). The piece of acetate in itself is not a communication, a panacea, a method, an instruction, or an education" (p. 285). Elaborating, Worth says, "Communication requires that members of a social group share the meaning of the symbolic forms they use, social processes whereby the signal received by visual receptors is treated as a message from which content or meaning is inferred". Worth emphasizes that man creates film communication. He says, "a piece
of film in and of itself is meaningless; meaning exists only in a special social and cognitive relationship between a filmmaker and a viewer" (p. 284). "Communication", says Worth, "occurs when the viewer chooses to treat a film not as mere signals triggering perceptual awareness and biological responses, but as message units that have been put together intentionally and from which meaning may be inferred" (p. 284).

A study by Reid (1970) on A Comparison of a Multi-Image and a Linear Film Format as Agents of Attitude Change concluded that the extreme position of McLuhan cannot be wholly maintained.

**Direct Versus Mediated Communication**

One of the most researched areas of channel variables is whether the person's contact with the object of his attitude has been via direct observation or has been mediated by communication from others. McGuire (1969) reports that a tremendous amount of applied research to test the effectiveness of the mass media in the field of marketing, advertising, and political-behavior areas finds the measured impact on persuasiveness to be quite slight (p. 227). McGuire (1969) cites Belson's study in 1956 that found mass media had even the reverse of the intended persuasive impact (p. 227).

Proponents of mass media argue that its ineffectiveness is more apparent than real and that attitudinal effects are of a more subtle nature than at first supposed. It is interesting to note
that across studies of attitude, change, conflicting results occur between laboratory and field studies with more persuasive results occurring in laboratory studies.

The relative effectiveness of how one medium is compared to others in affecting attitudes and behaviors has been neglected by researchers. McGuire (1969, pp. 230-231) does comment on the comparative credibility of the media. Both television and newspapers receive higher ratings of accuracy and truthfulness than radio as a news source. Higher socio-economic groups, urbanites and males rate newspapers as more accurate and truthful than television; while demographic opposites rate television as more accurate and truthful.

Substantial studies cited by McGuire (1969) point to the fact that mass media have less impact on opinion change than is produced by informal face-to-face communication of the person and primary groups, family, friends, co-workers, and neighbors (p. 231). Two research studies cited by McGuire (1969) on the prescription of new drugs by physicians suggested that face-to-face contact with physician opinion leaders was more influential than formal channel communications employed to encourage physician use of the new drugs (p. 231).

Methodological artifacts in comparing laboratory and field setting studies is explained in the research methodology section of this Chapter. However, McGuire (1969) concludes that although
methodological artifacts may contribute to the differences between mass media and direct person communication that they do not account for the entire difference in persuasive impact. McGuire (1969) theoretically considers the following factors as contributors to the difference: limitation to one-way communication with mass media; lack of active participation and public commitment to an opinion with mass media; inability of media to be able to alter persuasive argument based on receiver's verbal and non-verbal responses; dissimilarity of media as a source as compared to another person's face-to-face contact; and superiority of the attention and courtesy factors in face-to-face communication (p. 232).

**Spoken Versus Written Form**

Numerous modality studies cited by McGuire (1969) indicate that when a persuasive communication is presented both in spoken and written form, the spoken word has more persuasive impact (p. 226). It is interesting to note, in contrast, that written communication generates more cognitive recall. A study cited by McGuire in 1967 by Whittaker and Meade found that male sources are perceived as more credible with oral than written messages (p. 226).

**Film Motion as Response Producer**

Movement in the channel is another variable that has received some research attention. Film theorists maintain that the basic aesthetic unit of motion pictures is movement. Movement is claimed
to produce an involvement response in the spectator. Miller (1957, p. 173) suggests that much of this response is considered affective or at least as a predisposition to make an emotional response as directed by the content. A study by Miller (1967) investigated motion as a formal film quality and its effect on the audience in producing an emotional involvement response. The effect of the motion/emotional involvement response relationship on learning retention and attitude and attitude change was also investigated. Miller hypothesized that (1) film motion is capable of creating audience emotional involvement response; (2) film motion is capable of creating a positive audience attitude response; (3) film motion is not a significant factor in audience information retention; (4) the galvanic Skin response is a useful instrument for evaluating film audience emotional involvement response; (5) there is a significant positive relationship between film audience involvement response and attitude response; and (6) there is no significant relationship between film audience emotional involvement and attitude responses and information retention. Results indicate that the motion picture group scored significantly higher on attitude ratings of the film than did a filmograph group. Hypotheses 1, 5 were not supported. Hypotheses 2, 3, 4 were supported. Hypothesis 6 was given mixed support since there was no GSR and retention relationship but some attitude response and retention relationship.
One limitation of the study was the investigation of only one form of motion. Miller suggests that while motion can produce an emotional response, the response is mediated by such response-producing factors as content, and perhaps dramatic structure. Although motion may be an aesthetic property salient in film to produce emotional involvement, it must be considered in part along with other response-producing film properties (1969, p. 179).

**Environmental Variables**

Environmental channel factors are usually beyond the designer's control. Influences at the time of viewing may interact with other variables to alter desired response. One environmental variable that has been researched in terms of its correlation with attitudinal effects is seating arrangements. There is some evidence that a compactly seated audience shows less opinion change than a more scattered audience. Furbay (1965, p. 144) sought to determine whether compactness of seating is related to listening comprehension and attitude change in an audience listening to taped speeches. Taped speeches avoided the confounding variable of listener-to-speaker feedback and isolated the listener-to-listener feedback variable for more controlled study. Findings indicate that the groups seated compactly were significantly less influenced by the speech than were those seated in a scattered manner. Neither the compact or scattered groups differed significantly in comprehension, enjoyment of the speech, amount they thought they had learned, attitudes
toward the speaker, evaluation of the speech, or degrees to which they were aware of other listeners. However, women were more persuadable than men; those who enjoyed the speech were more persuadable than those who did not; and those who scored low on the comprehension test were more persuadable than those who scored high. The favorable shifts of opinion occurred for subjects in three subgroups (favorable, neutral, opposed) as determined on the basis of initial attitude.

Furbay (1965) cites H.L. Hollingworth and also Jon Eisenson who both suggest that physical closeness favors the use of emotional appeals, but that logical persuasion is more effective when listeners are separated. Since Furbay's recorded speech appealed largely through factual information, his results were consistent with Hollingworth and Eisenson (p. 147).

**Distinction Problems**

Channel variables are complicated by the lack of distinction in some cases between creative educational films and entertainment films. Wagner describes this as a "blur" between the two types of films (1953).

Wagner elaborates on the problem by pointing out the variety of formats, lengths, styles, purposes, viewing situations, interaction circumstances, and packaging options (1970, p. 378). These options could be the same for both types of film.
Specific, Sumulative Influence

Film, as a channel, has marked potential to influence behavior. Perhaps its most effective role is one of influencing specific attitudes. Allen (1960) concludes his synthesis on the effectiveness of films in modifying motivation, interests, attitudes, and opinions, as follows:

"There is no evidence that a film is superior to other media of communication in influencing general attitudes. The effect of films appears rather to be specific. It appears also that the cumulative effect of more than one film on the same theme may be needed for any lasting attitudinal changes or reinforcement to take place" (p. 40).

Attitude Receiver Variables

Receiver factors are those defined variables that are concerned specifically with the state of the person when he receives the message. Many circumstances and variables influence the nature of film response and interaction. Wagner (1959, p. 169) states, "The film experience is dynamic, not static in quality. The rhetorical elements in any film interact with each other, with the nature of the audience, and with the time and circumstances of the showing".

Hoban and van Ormer's Principle of Audience Variability is "Reactions to a motion picture vary with most or all of the following factors: film literacy, abstract intelligence, formal education, age, sex, previous experience with the subject, and prejudice or predisposition toward the subject" (1950, p. 94).
The film and viewer relationship is twofold according to Madsen (1973, p. 5). First, there are those characteristics of the film medium, as perceived by the viewer to which he most readily responds. These are the elements of visual primacy, visual context, reinforcement of existing attitudes and knowledge, and context relevance. Second, some characteristics of the viewer himself affect perception and response to the film. Elements such as viewer age, sex, intelligence, level of formal education, social attitudes and opinions and life space affect film response.

Age

McGuire (1969) concentrates on a few strategic variables representative of the literature on relationships between influence-ability and individual differences. McGuire (1969) found that maximum suggestibility appears at about eight or nine years of age. There appears to be a decline at the chronological age of nine that levels off after adolescence. No relationship appears consistently between susceptibility to persuasion and mental age and intelligence (1969, p. 247).

Age as a factor of film perception relates to one's ability to interpret cinematography and editing techniques and select content. Madsen (1973) suggests that the capacity to learn from films grows until a peak in the late teens and early twenties and then declines.
The decline is attributed to two potential interacting causes:
"adult discount" or the skepticism and resistance that come with the discrimination of maturity; and the decline in human physiological reactions after a certain age (1971, pp. 12-13). Madsen (1973) warns that an important factor with increasing age is the growing tendency of adults to react with a "boomerang effect" if a film challenges emotionally rooted beliefs (p. 14).

Madsen (1973) lays to rest that conventional thought that dull students learn more from and more easily influenced by films than intelligent students. In fact, it appears that the more intelligent the viewer, the proportionately greater the film experience learning (p. 18).

Sex and Sex Role

According to McGuire (1969) there are many studies reporting negative relationships between self esteem and influenceability and many reporting positive relationships. He cited numerous studies that indicate a clear main effect of sex and influenceability with females being more susceptible than males (1969, p. 250).

Madsen (1973) reports that viewers take interest in film subjects to the degree that they concern the viewer's sex role in American Society.

Madsen relates this to the factor of identification (1973, p. 14).
Influence of IQ

McGuire (1969) recognizes the common fallacy that the main impediment to persuasion is motivation rather than intelligence. McGuire states that research shows that resistance derives more from the subject's inability to learn what the source wants him to believe, than from his unwillingness to yield to his source's pressure (p. 106).

Selective Exposure, Perception and Retention

Madsen (1973) indicates that the relationship between the film and the viewer is affected as much by what the viewer brings to the film, as it is by the film as an entity (p. 12). Madsen identifies three factors which influence message reception: selective exposure, selective perception, and selective retention. Most persons seek film experiences whose point of view is similar to their own and avoid films whose point of view is different (selective exposure). Note that Madsen does not discount selective exposure as alluded to by McGuire. If a person is forced to view a film that runs counter to his beliefs, attitudes, opinions, etc., he tends to perceive only what reinforces his existing viewpoint, ignores what does not, or reacts in anger and distorts the film's content to justify and reaffirm his views - the boomerang effect (selective perception). Most viewers retain and remember those things in a film that he considers valuable according to his age, sex, intelligence, level of formal education, socio-economic values, and life space (selective retention).
Hoban and van Ormer supported the notion of selective exposure in 1950. Hoban and van Ormer's Principle of Pictorial Context is "An audience responds selectively to motion pictures, reacting to those things which it finds familiar and significant in the pictorial context in which the action takes place" (1950, p. 9-6).

**Audience Interests**

With respect to the well-designed educational film, Wagner says its affect is proportional to the extent it is based on the common interests and needs of the intended audience (1959, p. 171). Hoban and van Ormer conclude that the ability of any communication medium to modify motivation, attitude, and opinions lies not so much in the medium but in the relationship of the medium bias and content to the viewer's personality structure and social environment (1950, p. 5-20).

**Conformity**

Conformity tendencies can be in the personality structure. There is evidence reported by McGuire (1969, p. 242) that conformity is a fairly general trait. Those with high conformity in early stages tend to be high conformists in later situations. Those who tend to conform to one type of source, usually conform to other sources. Those conformists in one kind of situation tend to conform in other situations. It also appears that there is a small, but significant trait of general persuasibility. According to McGuire,
"The results regarding the relationships between any given individual difference variable and susceptibility to social influence tend to be extremely complex and seemingly contradictory" (1969, p. 243).

**Education and Financial Status**

Cantril (1946, pp. 132-133) demonstrated that the more extreme an attitude is in its direction, the more intensely it is likely to be held, and that there is a tendency for people who are better educated, better off financially, and who are older to hold their attitudes with greater intensity than those less well educated, less secure economically, and younger.

**Degree of Involvement**

The degree of involvement of the receiver in the message is yet another variable researched in terms of its influencesability. Hayman and Dawson (1968) state that many programs will be most effective when overt behavior and information are combined in some way. Attitudes that are more deeply-seated are likely to require some type of overt behavioral experience. This idea does not negate that knowledge is causing the change in attitude, but rather the issue is whether the knowledge is gained through a positive, approach or active experience (1968, p. 48).

In general, however, it appears that active involvement and persuasiveness do not go hand-in-hand. In terms of active improvisation and attitude change, McGuire (1969, p. 235) says, "Application of these beliefs about psychotherapy and learning to the attitude-
change area yields the prediction that a given communication will be more persuasive to the extent that the receiver is called upon to participate actively by improvising its contents, rather than merely reading passively a communication prepared for him. The results, however, are quite to the contrary". McGuire (1969) is supported by citations from Hovland and Mandell, 1952; Thistlethwaite, deHaan, and Kamenetzky, 1955; Greenbaum, 1963; Jansen and Stolurow, 1962; McGuire, 1961 and McGuire and Papageorgis, 1961.

Whatever the degree of involvement, Salomon (1968) says, "The unique attributes of the medium under investigation will have unique psychological effect only if they arouse in the viewer mediating mental processes which are relevant to the particular learning task at hand" (p. 226).

**Family Influence**

No matter what arousal techniques are used some receivers will adhere to a view for no other reason than family-orientation to that view. Madsen (1973) acknowledges the family as the most cohesive group whose values are seldom outgrown. The gradual learning of social attitudes results in their permeation into the individual's being (1973, p. 23). This long-term influence is consistent with the findings of cumulative influence being greater than a single experience. It is only the single traumatic experience, felt or witnessed, that is the exception to changing a social attitude. Most attitudes are ingrained in the conformity that is rewarded by family acceptance,
approval and enhanced status. According to Garry and Kingsley (1970) significant social attitudes are taught by parents during early childhood and emotionally reinforced. They include basic values, ideals, and conscious attitudes that rarely change very much during life (p. 509).

**Teacher Influences**

Groups other than families can influence attitudes. Madsen (1973) says that student attitudes are affected by teachers whose attitudes are affected by the fear that technology could cost jobs (p. 495).

**Group Norms**

Cooper and Dinerman (1951) reported that every attempt to modify attitudes encountered some resistance. The major factor governing resistance appeared to be the climate of the opinion in the group to which communication was directed. The authors hypothesized that a message directed at a population in which the climate of opinion is overwhelmingly favorable will have less chance of success with deviate members than a message aimed at a population in which a large number of "deviates" exist (p. 261). The authors support this hypothesis by reporting that messages with the smallest initial resistance were not accepted in the end, the resistance of the few deviates was too intense to be overcome by the film. The message with the greatest initial resistance was each accepted by part of the audience. They further hypothesized that when messages
are directed to a group where the majority already sanctions the messages involved, the likelihood that these messages will be accepted by those who initially do not agree varies with the size of the deviate group. They found that the less explicit messages were not accepted by the less intelligent members of the audience (pp. 262-264).

Citing Schramm, Hayman and Dawson (1968, p. 47) say that generally, a message is more likely to be effective if it is compatible with existing personality patterns or in harmony with the norms of values reference groups. Several researchers are cited as indicating that the more self-sufficient a person, the more difficult he is to change. Persuasive messages are more effective with those who are rigid in respect for and obedience to authority, those who depend on relationships with other people and those who need social contact. Attitudes are very vulnerable to perceived group standards. Thus, Hayman and Dawson recommend that a message should be designed, if possible, so that its agreement with reference group norms is emphasized.

Ramseyer's study in 1938, as cited by Allen (1960), indicates that documentary films can strongly influence specific social attitudes as long as the attitude to be changed is directly related to the film content and the film does not conflict with the social norms of the audience. It is suggested and reiterated by several studies that a film that tries to promote attitudes contrary to social beliefs will result with the existing attitude reinforced rather than changed ("boomerang effect") (1960, p. 118).
Hoban and van Ormer (1950) postulated that the influence of films on social attitudes will be influenced in the direction of the motion picture bias, provided this bias is not strongly contradictory to accepted social norms. With little experimental evidence, they further postulated that when there is bias in a motion picture portrayal of a role with unfavorable social bias the attitude will be reinforced in the direction of the community bias ("boomerang effect"). These postulates are consistent with the thought that social attitudes resist redirection and are developed in conformity with group behavior norms (1950, p. 5-14).

Group - norm allegiances break down and the viewer is more vulnerable to the influences of the media in two contexts according to Madsen (1973, pp. 20-21). The first is when group answers do not coincide with personal experience. The second comes when a person perceived as a leader appears live or on film to announce a policy change on a given issue.

**Receiver Variables Versus Media Variables**

Source, message and channel variables are all successful in affecting attitudes, depending on the differing aspects discussed earlier. All are in the realm of potential manipulation by the instructional designer. Receiver variables are not. Madsen (1973) says, "Research has indicated that certain media-related concepts and techniques are indeed effective in motivating students, but the variables are as often in the student as in the media" (1973, p. 492).
Perhaps that is why Hoban says, "The more the audience brings to an educational motion picture, the more the audience gets out of the picture" (1946, p. 10).

**Target Audience**

Wagner (1970, p. 381) identifies how difficult it is to even define the "target" audience for a film, or any other medium. He attributes this to the rapidly shifting visual and perceptual values, the increasing types and numbers of viewers, and the increasing proliferation of varieties of situations in which the audience may be.

**Interaction Research Outcomes Expected**

Salomon (1968) identifies the realistic research outcomes with a basic assumption that one should expect interaction effects between particular media attributes, learner traits, and learning objectives, rather than main effects due to media attributes alone (p. 225).

**MOTIVATION**

**Motives as a Basis in Learning**

According to Miller, learning requires effort and must be motivated in order to be efficient. The effectiveness of training films can be improved if more attention is paid to motivating the students to learn (1957, p. 73).

Although attitudes are primary to learning, Gagné (1974) indicates that first there must be the presence of motivation, interest, and prior development factors before cognitive and psychomotor learning
can occur. Motives refer to the internal conditions of learning in the motivational phase that are in part from long-lasting expectancies in the learner's memory (Gagné, 1974, pp. 107-108). Maslow and others have categorized a large variety of human needs and motives. Gagné hypothesized that it is the desire for mastery that is one of the most dependable motives on which to base instructional design (1974, p. 108). Discovering the potential motives of a specific target audience, and designing an instructional program which will set them into motion is the challenge for the instructional materials producer. It is implied that arousing interest and gaining attention may be one important design strategy.

The first phase of Gagné's act of learning model is the motivational phase. He acknowledges that it is a truism that an individual must be motivated for learning to occur. Although there are many forms of motivation, Gagné recognizes "incentive motivation" as "a type of motivation in which the individual strives to achieve some goal and is in some sense rewarded for reaching it" (1974, p. 29).

When the learner is not initially motivated toward the achievement of a goal, the incentive must be established. Gagné (1974) suggests that motivation may be established by generating within the learner a process called "expectancy". He defines expectancy as cited from Estes in 1972 as the anticipation of a reward that he will obtain when he achieves some goal (1974, p. 30). Expectancy can be established by communicating the nature of the goal or incentive to
the learner. Undoubtedly, the desired expectancy may have to be learned more directly through experience rather than through an information-giving mode. Gagné emphasizes that an acquired expectancy does not complete the learning but rather prepares the way (1974, p. 31).

Speaking of motivation, Gagné (1974) states, "The establishment of an expectancy is a particularly critical feature in the learning of an attitude. If the learner has experienced success following a choice of personal action, a reminder may be sufficient to activate the expectancy" (p. 88).

Perhaps an effective use of 16 mm film is to reactivate behaviors through the succinct design of instructional films on attitudinal topics already known to be accepted.

Moods and Emotions

Moods and emotions seem to be based in motivation and personality. Weiss (1954) states that the emotional provocativeness of communication stimuli depends on the way they are perceived and interpreted, rather than inherent in their physical qualities. Weiss therefore suggests that analysis of the emotional effects of mass media must consider the continuously active perceptual and cognitive processes and their bases in learning, motivation and personality (1954, p. 92). He also states that a mood can affect one's emotional responsiveness to a particular segment of the communication. Citing several research studies, Weiss cautions that without independent empirical evidence, one should not assume that a particular mood or feeling is the dominant
or only one controlling affective behavior. On the other hand, neither should one assume that a particular communication had no relevant affective consequences (1954, p. 97). There do not appear to be any systematic studies of the persistence of emotional effects from media.

**Principles of Learning Motives and Emotions**

Garry and Kingsley in *The Nature and Conditions of Learning* (1970) identify some principles of affective learning in behavioral areas of motives and emotions:

- responses are learned in association with reinforcement; reinforcement and drive reduction are central to the theory of learning and habit formation (p. 307).
- neutral stimuli occurring in association with drive reduction acquire the capacity to reinforce (p. 308).
- the response or sequence of responses is brought under control of new stimuli through the manipulation of reward and reinforcement schedules (p. 308).
- research suggests validity of the desire to move from less complex to more complex and to prefer levels of complexity correlated with levels of preference (past experience). (Citing Dember, p. 311).
- since persons process information by requirements set by past experience, this suggests they will seek objects or events which are interesting, attention-gaining and compatible with past experience. A feature of compatibility is the appropriate level of complexity; appropriate levels of experience provide some new information, but not 100% novelty. (Citing Dember, p. 311).
- research indicates small incongruencies or discrepancies between adaptation levels and attractive, pleasurable input; and large discrepancies between adaptation levels and unpleasant and unattractive stimuli (Citing Hunt, p. 313).

From the above principles, one could hypothesize that films designed to affect motives and emotions should include reinforcement
occurring in concert with reward schedules, drive reduction, and neutral stimuli. Films designed from less complex to more complex communication will correlate with experience. A selection of sounds and images that are attractive and interesting will be effective as long as they are compatible with some past experience.

May and Lumsdaine (1958) report that previous research indicates that learning from films depends on three main sets of variables - film attributes, utilization, and audience characteristics. Productive research problems include answering, "What teaching methods were used with film when students are highly motivated?" (1958, p.5).

Novelty

Novelty, according to Madsen, has some motivating qualities (1973, p. 493). Madsen (1973) reminds readers, however, that negative motivation can occur as a "boomerang effect". "Boomerangs" in motivational film design and communication appear to function as they do in attitudinal communication.

Anxiety

The use of anxiety in motivation is also consistent with anxiety in attitudes research. Travers (1963) states, "Anxiety represents an important motive in all avoidance learning and possibly may play a part in most learning. In the learning of simple responses, persons considered to have high manifest anxiety tend to learn more rapidly. When complex learnings which require choice of responses are involved, the reverse relationship holds true" (p.185).
Pleasure

Pleasurable stimuli generally function as reinforcers of behavior, according to Travers (1963). Expectation of pleasure may be a motivational factor (p. 186).

The complexity of variables in motivational learning strategies is, like attitudes, highly influenced by individual characteristics and experience.

Personality

Again, motivations and attitudes are similar as they interact with personality. Sears and Hilgard (1964) say, "The problems of motivation are so intertwined with problems of personality that an adequate account of motivation in relation to learning cannot rest solely on the findings of the learning laboratory" (p. 209).

Life Space

Because of this intertwining, the film designer must try to identify the existing needs and desires of individuals and relate them to the film content. Madsen refers to this as "life space" (1973, p. 24). "Life space" refers to four basic postulates of motivation: self-preservation, self-realization, self-identification, and self-regard. It is a challenge to the film designer to point out how acting on the purpose of the film will enable the viewer to satisfy these motivational postulates.

Research

Waldron states that research studies do show a heightened motivation factor with motion pictures (1949, p. 27). Sanderson
recognizes that films do reinforce those existing motivations and attitudes which are consistent with the viewer's social forces and past experience (1968, p. 357). He cited a study by Knowlton and Tilton in 1929 as one of the most concrete studies demonstrating that the ability of films to stimulate motivation is highly significant. Knowlton and Tilton reported that students in seventh grade history classes using the Yale "Chronicles of American Photo-plays" showed an increase of 40 percent in voluntary reading over those students who did not view the films (p. 357).

Hoban and van Ormer (1950) identify considerations in military and academic motivation. They say, "Without an adequate comprehension of what is involved in motivation, and of the cultural values assigned to the worth of the individual, it is easy to overestimate the possible effectiveness of films in military motivation, and to underestimate their effectiveness in motivating academic activity and social conduct" (1950, p. 5-2). Hoban and van Ormer indicate that instructional motion pictures, produced apparently without deliberate motivational intent, have been found to increase motivation academically (p. 5-2).

The influence of both entertainment and classroom films on academic motivation and behavior appears to be valuable. The influence is likely to arise from the nature of motion pictures and the context of instruction. Hoban and van Ormer (1950) stated, "To the extent that the individual accepts academic (and intellectual) achievement as a condition of self-realization and to the
extent that social approval enhances his self-regard, motion pictures which facilitate intellectual activity and enable the individual to behave in socially-approved ways are a useful tool in the attainment of basic goals and in the approach to a culturally defined condition, or state, of happiness" (p. 5-12).

In summarizing the influence of films and other media on military motivation, Hoban and van Ormer (1950) indicate that there is little exact evidence that films can modify actual conduct motivations as long as the desired motivations are contrary to an individual's personal experiences. They state that some evidence does indicate film's ability to reinforce motivations which are consistent with daily living and the individual or social group aspirations.

Allen (1971, p. 117) cited several researchers who investigated the effect of films on motivations and interests. Lashley and Watson are cited in 1922 as finding that although a film on venereal disease had no measurable effect on subsequent behavior, it did influence those who contracted the disease to seek immediate medical care. Allen (1971) cites several researchers who found that films increased student interest and classroom participation. Evidence suggests that films do exert a positive influence on academic motivation. Allen cited contrary evidence in Army film programs designed to motivate soldiers to serve in the Army and fight the enemy. In such studies by Hovland in 1949 little if any change in motivation was made. It would seem that Hovland's efforts failed, in part, because more was involved in the life and death situation than mere motivation.
OPINIONS

Introduction

Knowles (1967, p. 303) quotes Berelson in 1955 who confirms the complexity of the answer to the research question, "Do communications influence public opinion?" The answer available is, "Some kinds of communication on some kinds of issues, brought to the attention of some kinds of people under some kinds of conditions, have some kinds of effects".

Lippmann (1922, p. 4) states that "... whatever we believe to be a true picture, we treat as if it were the environment itself".

Stereotypes

Stereotypes are an ordered more or less consistent picture of the world to which a person's behavior and response to the world are based. Lippmann (1922) says, "For the most part we do not first see, and then define; we define first and then see. In the great blooming, buzzing confusion of the outer world we pick out what our culture has already defined for us, and we tend to perceive that which we have picked out in the form stereotyped for us by our culture" (p. 54).

Codes

Lippmann (1922, pp. 81-82) theorizes that a public opinion is primarily a moralized and codified version of the facts. He
argues that the pattern of stereotypes at the center of one's codes largely determines the group of facts identified.

It is apparent than that any disturbance of one's stereotypes is an attack upon the foundations of one's universe. Lippmann (1922) elaborates, "Since my moral system rests on my accepted version of the facts, he who denies either my moral judgments or my version of the facts, is to me perverse, alien, dangerous . . . . It is only when we are in the habit of recognizing our opinions as a partial experience seen through our stereotypes that we become truly tolerant of an opponent" (p. 82). Kelman (1971, p. 405) has distinguished three processes of social influence in opinion change. Each is characterized by a distinct set of antecedent and a distinct set of consequent conditions.

Compliance occurs when a person accepts influence because he hopes to achieve a favorable reaction.

Identification occurs when a behavior is adopted that is associated with a satisfying self-defining relationship to a person or group.

Internalization occurs when influence is accepted because the induced behavior is congruent with a value system.

**Potential of Film**

Madsen (1973) believes that film has the potential to present and reinforce revolutionary views as well as introduce and define ideas to which many viewers have given little or no attention. Madsen comments that in a time when pat answers of the past no longer suffice, there is enormous potential for opinion formation on new issues by media (1973, p. 9).
Madsen stated that when the viewer has no opinion on an issue, the single film may create an opinion of "unshakable importance" (1973, p. 9). He cited Goebbels who says, "The first word to the world is always right". It appears that subsequent research has confirmed the efficacy of reaching the audience first with media. If the first point of view expressed prevails on the viewer's mind and is reinforced by films, later communications will have little success in changing that view. It seems that the first person to get his view on film may have his way for a long time. The viewer characteristics of selective exposure and selective perception, as already discussed, will protect and reinforce the view.

Madsen concurs that once an audience has been instilled with an ill-founded opinion, they tend to be inoculated against later programming with opposite evidence (1973, p. 9). The implied ramifications for early identification of issues and well documented ethically considered views by the instructional designer are enormous.

Caution is in order if highly intelligent persons suspect their opinions are being manipulated. Madsen recognizes this as a potential "boomerang" situation (1973, p. 17). It also appears that intelligent people acquire adult discount at an earlier age.

Lippmann (1922, p. 105) recognizes pictures as the surest way of conveying an idea followed by words that call up pictures in memory. However, Lippmann contends that the idea conveyed is not fully one's own until one has identified with some aspect of the picture.
Cumulative Film Effects

Compatible results exist with attitude research on the cumulative effects of more than one film. Weiss cited three research studies that suggested while a single motion picture may have only a limited effect on opinions, several related films on a similar theme can produce significant results (1954, p. 102).

Temporal Decay

Research on decay and passage of time on viewer influence, appears to have been done primarily in the area of opinion change. McGuire (1969, p. 206) summarized reinforcements within the persuasive communication as being, in general, positively reinforced (a strengthening) and negatively reinforced, (a weakening) effect on the elicited opinions to the extent that the reinforcement was administered without delay. Where reinforcement is intrinsic to the message itself, Weiss in 1962 is cited as finding (1) that the strength of an opinion can be manipulated by the immediacy with which arguments are presented after the opinion is expressed, and (2) by the drive strength under which the receiver is operating when he receives that argument (p. 206). The temporal decay of induced opinion change in persuasibility situations seems to have a half-life of about six months as summarized by McGuire from twelve different research studies (1969, p. 253). McGuire cited Hovland and Weiss in 1951 as describing a "sleeper" effect where the persuasive impact of a given message decays more rapidly if it is attributed to a positive source rather than a negative source (p. 254).
Several researchers are also cited with evidence that opinion change induced by subtle or complex messages decays slower than explicit and clear communication. McGuire (1969) found that opinion change is more persistent if the receiver had actively participated in the communication (p. 254).

The World War II research by Hovland, Lumsdaine, and Sheffield in 1949 is cited as finding the impact of the "Battle of Britain" 16 mm film to be greater after eleven weeks than shortly after the film viewing (p. 254).

The decay curve for opinion change is similar to the forgetting curve. McGuire (1969) implies a possible parallelism between the forgetting curve for message content and the decay curve for induced opinion change (p. 256). He hypothesizes that "immediate opinion change is proportional to the amount of message learning, and that the persistence of opinion change continues to be positively related to recall of the details of the message (such as retention of the particular arguments used), but that the induced opinion change tends to become functionally autonomous of (and even negatively related to) retention of the broader aspects of the communication, such as recollection that one has ever head argumentation on the issues" (pp. 257-258).

**Order of Presentation in Persuasion**

Another variable of interest to opinion change researchers is the order of presentation in persuasion. Hovland (1957, p. 130)
concluded that when two sides of an issue are presented successively by different communicators, the side presented first does not necessarily have the advantage. He also concluded that placing communications highly desirable to the recipient first, followed by less desirable, produced more opinion change than vice versa (p. 136).

It appears that preliminary design factors should precede the intended message. Hovland described a study by Cohen that stressed the need for arousing desire and concern before suggesting appropriate action (p. 153).

Hovland, Janis, and Kelley (1953) summarized the results of many studies on opinion change as follows:

The Communicator -

(1) Communications attributed to low credibility sources tended to be considered more biased and unfair in presentation than identical ones attributed to high credibility sources.

(2) High credibility sources had a substantially greater immediate effect on the audience's opinions than low credibility sources.

(3) The effects on opinion were not the result of differences in the amount of attention or comprehension, since information tests reveal equally good learning of what was said regardless of the credibility of the communicator, variations in source credibility seem to influence primarily the audience's motivation to accept the conclusions advocated.

(4) The positive effect of the high credibility sources and the negative effect of the low credibility sources tended to disappear after a period of several weeks (p. 269).

The Communication -

(1) Fear Appeals

(a) The use of a strong fear appeal, as against a milder one, increases the likelihood that the audience will be left in a state of emotional tension which is not fully relieved when the reassuring recommendations contained in the communication are rehearsed.
(b) When fear is strongly aroused but not fully relieved by the reassurances contained in a persuasive communication, the audience will become motivated to ignore or to minimize the importance of the threat.

(2) Salience of group norms
(a) Various types of communication content having to do with group norms may function as powerful incentives for the acceptance or rejection of new opinions (pp. 270-271).

(3) Conclusion drawing (hypotheses suggested)
(a) In communications which deal with complicated issues, it is generally more effective to state the conclusion explicitly than to rely upon the audience to draw its own conclusions.
(b) With less complex issues, however, one would expect more members of the audience to be able to derive the appropriate conclusion independently (p. 272).

The Audience -
(1) Group Conformity Motives
Persons who are most strongly motivated to retain their membership in a group will be most resistant to communications contrary to the standards of that group (p. 276).

(2) Individual Differences in Persuasibility (hypotheses suggested)
(a) Persons with low self-esteem are predisposed to be highly influenced by persuasive communications.
(b) Persons with acute psychoneurotic symptoms are predisposed to be resistant to persuasive communications (p. 277).

VALUES

Weiss identifies that there is scant research on the influence of mass media on personal or social values, ethical or moral views, or attitudes toward life (1954, p. 111). That fact is no doubt true since
Weiss is the only reference found in this search of social psychology and film literature.

PROPAGANDA

Introduction

Doob (1935, p. 94) identified as the purpose of the propagandist, either intentionally or unintentionally, to control the attitudes of a group of people through suggestion and eventually to control their actions. If the propagandist fails to have someone grasp his stimulus-situation, he is not a propagandist, but only has aspirations in that direction.

Doob's 1935 "Principles of Propaganda" are listed in Appendix A.

Censorship

Lippmann (1922, p. 28) stated that propaganda in the strict sense of the word is impossible without some form of censorship. To conduct propaganda, there must be some barrier between the public and the event. When access to the real environment is limited, the propagandist can create a desirable pseudoenvironment.

The environment can be refracted not only by censorship, but also by privacy of the source, by physical and social barriers, by scanty attention, by the poverty of language, by distraction, by unconscious constellations of feeling, by wear and tear, violence, and
monotony. Lippmann (1922, p. 48) states that these limitations upon access to the environment combine with the obscurity and complexity of facts to mislead one's perceptions, ideas, and resistances.

Lazerfeld (1944, p. 79) says that people purposely select political material in accord with their own taste and bias and expose themselves to propaganda which fits their not-yet conscious political predispositions.

**Nazi Directives**

According to George (1959, p. 13), large-scale propaganda operations, such as the Nazi regime, required a formalized direction and coordination. A large propaganda organization is guided by explicit directives for both general terms and specific detail. Directives clarify the lines, themes, omissions, emphases, minimizations, etc. to be introduced into the propaganda for various audiences.

Nazi propaganda assumptions identified by George (1959) are: (1) mass communication was used as an instrument of policy, (2) communication was closely coordinated with policy calculations, and (3) communication was subject to centralized control (p. 20).

George (1959, p. 20) concluded that Nazi communications were a produce of two interrelated behavioral systems: political decision-making (policy-calculating) systems and secondarily, propaganda decision-making systems.

**Short-Wave Propaganda**

Fried (1942) specialized in propaganda content analysis and symbol research in the 1940's. In studying the German and British
short-wave broadcasts to North America, Fried (1942) noted that they were designed for persuasion and attempted to modify the listener's background of attitude and beliefs. By supplying ready made interpretations of world events, they sought to build an attitudinal framework for future action. Short-wave propaganda, like the pattern of most propaganda, emphasized persuasion rather than incitement to direct action (p. 263).

Fried (1942) states that the success of propaganda depends in part upon correctly diagnosing the kind of response an audience is prepared to make. In general, techniques for securing acceptance and conviction center on learning and cognitive mechanisms; while appeals to incite immediate action are loaded with heavy emotional content. Fried says, "It is possible to distinguish between formalistic techniques of persuasion based upon the laws of learning and reasoning and the motivational devices related to the nature of the appeal" (p. 264).

Once a skilled propagandist influences his audience through indirect suggestion to listen, the law of action is in the advantageous position of the propagandist, while the audience is confined to passiveness. While in this passive state, many techniques of persuasion are employed. Fried (1942) identifies multiple techniques used in the radio broadcasting of propaganda.

Formalistic techniques identified by Fried (1942, pp. 266-289) are:
1. "Manipulating the stigma of propaganda: the enemy lies - we are telling the truth" - propagandists imply or explicitly state that listeners should beware of the irresponsible and misleading statements of the enemy (p. 266).
2. "Attempts to establish authenticity" - broadcasters quote documents, expert opinions, eyewitness reports and all types of news sources and other evidence to authenticate their statements (p. 267).
3. "Creating an atmosphere of consistency" - two contradictory principles are decisive factors: (a) different stories shall be told to different interest groups, such as to conform best to their believable value systems, and (b) actual political decisions and widely known events of the day and the known sets of Fascist concepts and principles shall conform (p. 271).
4. "Repetition" - a recognized first order practice to persuade and convict (p. 274).
5. "Word manipulations" - use of succinct words where an indicated direction is desired; otherwise, speak in generalities (p. 278).
8. "Argumentative form" - passages of reasoning, in which explanations and justifications are given and conclusions drawn from the evidence interchanged with direct assertions (p. 287).

Fried (1942, pp. 289-301) additionally identified techniques of persuasion that appealed to motives and emotions, as follows:

2. "The appeal to hatred" - the fanning and directing of hatred through name-calling (p. 292).
3. "Self-interest and ego-motives" - listeners are reminded of the material deprivations and loss of security due to their own social system (p. 294).
5. "Anti-fear campaigns" - propaganda defensiveness regarding the fear motive (p. 299).
6. "Limitations of emotional appeals"
   a. "Time Factor" - appeals launched in coincidence with events that affect their audiences (p. 300).
   b. "Composition of the Audience" - appeals to homogeneous audiences are more emotional than speeches to listeners who are not addressed on a selective basis. (p. 301).

Motion Pictures and Propaganda

Censorship and Codes

Doob (1948, p. 505) stated, "The American motion picture industry is surrounded and surrounds itself with a long series of censorship regulations, the net effect of which is intentional and unintentional propaganda in behalf of what can be called prevailing standards of good taste or morality".

In 1922 the film industry established the Hays Office (later the Johnson Office) to review and censor scripts prior to film production. Censorship was based on regulations spelled out in the "Code to Govern the Making of Motion and Talking Pictures". The Code was established at a time when the film industry's reputation was suffering from what were considered low-grade and immoral pictures.

The Code began with a Preamble, quoted by Doob (1948, p. 507):

"Motion picture producers recognize the high trust and confidence which have been placed in them by the people of the world and which have made motion pictures a universal form of entertainment."
They recognize their responsibility to the public because of this trust and because entertainment and art are important influences in the life of a nation.

Hence, though regarding motion pictures primarily as entertainment without any explicit purpose of teaching or propaganda, they know that the motion picture within its own field of entertainment may be directly responsible for spiritual or moral progress, for higher types of social life, and for much correct thinking.

Doob (1948, p. 508) concluded that the Code recognized film not only as a source of entertainment, but frankly recognized film as a vehicle for propaganda and education.

Applications of the principles of the Code ranged from prohibiting "scenes of passion" to the selection of titles, "which shall not be salacious, indecent, or obscene".

Although modern film production is no longer governed by this Code, production censorship is possible by the producer, director, script-writer, editor, etc. Each selects and edits "reality" as he sees it, for the viewer.

Nature of Propaganda

Doob (1935, p. 374) reports the impression, "The products of the motion picture industry resemble the stories in the Saturday Evening Post: they not only follow the direction of public sentiment, but they also subtly guide that sentiment. From the point of view of content, then, the cinema contains propaganda". However, since commercial films were seen as entertainment, Doob labeled cinema propaganda as almost entirely unintentional and generally concealed.
Boorstein (1972) disagrees, "The motion picture is to real life in American what any image is to the commodity or corporation it stands for. The motion picture, seen abroad, is of course synthetic. It is believable. It is passive. It is concrete. It is simplified, and it is ambiguous. Thus the world has been flooded with images of America. The selling of American images abroad is a remunerative business."

"Our government operations also have had a large part in spreading these images. Much of our propaganda has been trying to create an image (we always say, of course, a "true", by which we mean a favorable, image) of the United States" (p. 242). In 1935, Doob (p. 383) recognized the motion picture medium as a propaganda tool outside the theatre. He cites the fact that churches, schools, and industrial plants had installed projectors in an effort to influence their audiences. Doob saw this as exploitation of the prestige of cinema entertainment in order to attract an audience. He acknowledges, however, that some useful pedagogical communication resulted.

In 1948 Doob concluded, "There is no question that motion pictures constitute an important propaganda vehicle in modern society" (p. 514).

Production Techniques

George (1959, p. 14) reports "Avoidance of reporting information contrary to goals" as an important propaganda technique.
Doob (1935) studied the cinema industries of countries where dictators controlled all means of communication. These included propaganda films produced by Hitler in Germany, and by the Russians. Doob (1935) reported, "In all of these cases of intentional propaganda, the picture stands or falls on its merit as entertainment; the propaganda, no matter how potent it may be, must be incidental to the story" (p. 380).

Doob (1935, p. 373) quotes Peter Odegard in The American Public Mind, 1930 as saying, "Subtle associations constantly repeated may have a very telling effect".

To be more certain that the audience grasped the significance of an event, Doob (1935, p. 382) indicated the producer often had a smooth-sounding voice to interpret what is on the screen.

In 1948, Doob (p. 524-525) identified other psychological techniques of motion pictures. Accompanying music which is rich in appropriate associations for our culture may heighten the effect. The camera's ability to highlight detail recognized as a prime factor contributing to a picture's propaganda or educational effectiveness. An animated cartoon was able to manipulate stimuli more arbitrarily so that "even adults can be made to experience genuine emotions".

Doob (1948, pp. 524-525) identifies other factors present in the situation which makes films effective and thus aid the propagandist. Among these are: (1) as a member of the audience, a person is stimulated by others and their expressions of approval or disapproval;
(2) the motion picture provides an impressive contact with unfamiliar aspects of society; (3) film gives the impression of witnessed reality, pure and untouched; (4) fixation on the screen reduces the strength of competing responses; (5) the artistry of the medium enhances identification with the characters; and (6) the telescoping and manipulation of time along with limited stimuli evokes a continued series of response almost never aroused so efficiently in normal life.

**Cumulative Effects**

Doob (1935, p. 381) indicates that newsreels, newspapers, and motion pictures can reinforce the impressions each gives concerning the events of the world; hence, a cumulative effect.

Impressions from motion pictures over a period of time is likely to be vivid and to persist. Doob (1948, p. 520) reports that ordinarily intention and unintentional propaganda is repeated over years of seeing motion pictures. The cumulative effect is reportedly "tremendous".

**Pseudo-events**

**Introduction and Definition**

Interest and research in propaganda flurried in the World War I and II years. A more modern view of propaganda by Boorstin (1972) focuses internally on today's society and its desire to fabricate. Boorstin directs attention to propaganda of a different nature; that is, personally derived propaganda or "pseudo-events".
Boorstin describes the world as one of our own making in which we have used our wealth, literacy, technology, and progress to create the "thicket of unreality which stands between us and the facts of life" (p. 3).

Boorstin suggests that historical forces have given us an unprecedented opportunity to deceive ourselves and to befog our experience. Boorstin states, "We want and we believe illusions because we suffer from extravagant expectations. We expect too much of the world. Our expectations are extravagant in the precise dictionary sense of the word - 'going beyond the limits of reason or moderation' they are excessive" (p. 3). "By harboring, nourishing and ever enlarging our extravagant expectations we create the demand for the illusions with which we deceive ourselves and which we pay others to make to deceive us" (p. 5). "The simplest of our extravagant expectations concerns the amount of novelty in the world" (p. 7). "Demanding more than the world can give us, we require that something be fabricated to make up for the world's deficiency" (p. 9).

This fabrication is referred to as a "pseudo-event" that, according to Boorstin is a happening with the following characteristics:

1. It is not spontaneous, but comes about because someone has planned, planted, or incited it.
2. It is planned primarily (not always exclusively) for the immediate purpose of being reported or reproduced.
3. Its relation to the underlying reality of the situation is ambiguous.
(4) Usually it is intended to be a self-fulfilling prophecy (pp. 11-12).

According to Boorstin (1972), we are tempted like no other generation to fabricate our experiences - our news, celebrities, adventures, and art forms. Finally, we believe we can make the very yardstick by which to measure these ideals. This is only a short step from exaggerating our power to remake the world. Boorstin (1972) says, "Expecting more novelty that there is, more greatness than there is, and more strangeness than there is, we imagine ourselves masters of a plastic universe" (p. 118).

The climax of these extravagant expectations is a universal shift in America from "ideals" to "images". These "images" are the philosophical basis from which Boorstin discusses the influence of film on attitudes and advertising strategies.

Relevance to Motion Pictures

Boorstin compares motion pictures to printed novels in Chapter 4 of The Image, "From Shapes to Shadows: Dissolving Forms". He identifies an inevitable tendency to view the motion picture as more authentic, which has resulted in a simplified dramatic film form. Since many things can be done visually in a film that cannot be accomplished on the stage or in a novel, Boorstin believes our society came to believe that there was nothing of importance which could not be put on film (p. 147).
ADVERTISING STRATEGIES

Introduction

Propaganda techniques and advertising strategies are discussed simultaneously, at times, in the persuasive message literature particularly by Doob (1935), Boorstin (1972) and Childs (1942, 1965).

Just as some authors lapse into interchanging the terms "attitudes" and "opinions", the investigator encountered a similar interchange with "propaganda" and "advertising". Therefore, this section is a continuation of literature and theory presented in the propaganda techniques section, with an emphasis on advertising. The overlapping discussion of propaganda and advertising in the literature speaks of the fine line that defines the difference between the two.

Strategies in the 1930's

Doob (1935) identified that all commercial advertising tries to be direct in its appeals, inasmuch as the object to be purchased or the act to be performed is clearly stated somewhere in the advertisement (p. 57).

According to Doob (1935, p. 95), if the total environment surrounding an individual is "ground", then the persuader's psychological ambition is to have his stimulus-situation or message emerge as the individual's "figure" as frequently as possible. Doob (1935) reveals several advertising strategies to accomplish this.

Once the message is selected, the persuader decides which vehicle of communication will be most effectively received; vision or audition (p. 95).
Since many persons do not wish to voluntarily hear or see the message, an alluring bait is often needed to arouse pre-existing auxiliary attitudes. Auxiliary attitudes facilitate suggestion by orienting individuals toward the message although they may never become a part of the new mental organization. For example, a tomato juice advertisement may feature a very beautiful woman whose function is to draw people toward that advertisement. Beneath her fingertips is the legend announcing the quality and inexpensiveness of the juice (p. 96).

To enhance reception of the message, the persuader repeats it as frequently as he can afford to repeat it. Repetition is used as a perceptual device to increase the probability of the situation being perceived. Once perceived, repetition performs a reinforcing function (p. 97).

Doob (1935) identifies one final perceptual device at his disposal; simplification (p. 97). The message is simplified in such a way as to give the receivers the feeling that they have understood what appeared to be a mystery. If the receiver is given the impression of securing the benefits of modern scientific research, he is flattered and pleased (p. 98).

Doob (1935, p. 98) indicates that intentional or unintentional distortion may also involve simplification through the elimination of details.
Krugman (1971) points out, "Advertising commonly operates in a situation of low involvement, where attitude change is usually not the first criterion of effect, but often follows long after a gradual change in perception and perhaps some behavioral choices" (p. 485).

Krugman (1971) cites trend studies of advertising penetration that have demonstrated the public's ability to "hold-in-memory" a large number of TV themes related to various brands (p. 486).

Although advertisers continue to convince producers to buy their advertising skills, Krugman (1971) notes a deficit in a significant body of research specifically relating advertising to attitudes, and these in turn to purchasing behavior or sales (p. 487). In a sense, a model of a process of correct and effective influence is in mind, but not verified. By observation, it appears that advertising works; the problem is that little information is available to explain "why" (1971, p. 487).

Childs (1965) agrees that there is little empirical evidence to support broad generalizations on the merits of advertising as a whole, even though numerous studies on the persuasiveness of advertising have been completed (p. 264). Nevertheless, Childs states four tentative suppositions and hypotheses.

First, Childs (1965) states, "It seems clear that advertisements have various effects on the thinking of people: some good, some bad, some contradictory, others promoting harmonious behavior. Advertisements inform and misinform, enlighten and confuse, induce and
obstruct purchases, please and annoy, elevate and debase, and even cause candidates to win or lose. In fact, advertisements may be a determinant for almost any type of behavior, and a given ad may, under certain circumstances, produce quite different effects, depending on who sees or reads it (p. 264).

Secondly, Childs (1965) indicates that advertisements have had a profound influence on the buying habits of American people even though generalizations are hazardous (p. 264).

Thirdly, Childs (1965) notes the informative educational impact of some advertisements, guiding the purchaser to decision-making, based on information.

Finally, according to Childs (1965) there are many subtle, covert ways to advertise and sell services, such as the means employed by doctors, lawyers, or clergy (p. 266).

In conclusion, Childs (1965) states that advertisements constitute only one of numerous factors in the opinion-forming process, which perhaps makes it impossible to isolate for study. "Meanwhile", Childs predicts, "progress seems to lie in the direction of curtailing as speedily as possible the obvious falsities, unnecessary annoyances, repetitiveness and competitive wastes, at the same time expanding the educative and informative aspects" (p. 266).

Pseudo-images

Boorstin's (1972) concept of "pseudo-events" in the propaganda techniques section of this chapter becomes "pseudo-images" when applied to advertising strategies.
Boorstin (1972) states, "What the pseudo-event is in the world of fact, the image is in the world of value. The image is a pseudo-ideal . . . it is synthetic, believable, passive, vivid, simplified, and ambiguous" (p. 185). Boorstin's (1972) philosophy is reflected in the title of his chapter, "From Ideal to Image: The Search for Self-Fulfilling Prophecies" (p. 181). Boorstein (1972) suggests that images are produced in a manner that appeals to a public who is begging to be "duped".

Boorstin (1972, p. 185) states that an image is synthetic in that it is planned: created especially to serve a purpose, or make a certain kind of impression. Examples are brand names, and trademarks (a legally protected set of letters, picture, or design identifying a particular product). Trademarks are memory triggers than can instantaneously reflect an image effectively and accurately. Images can be a few letters (IBM representing International Business Machines Corporation); a simplified picture ("His Master's Voice" - a dog listening to a primitive phonograph); or a catchy slogan ("When it Rains it Pours"). This image, however, is more than face value; it is a studiously crafted personality profile of an individual, institution, corporation, product or service. Boorstin states, "A more abstract kind of image is the peculiar product of our age . . . It is a value-caricature, shaped in three dimensions, of synthetic materials. Such images in ever increasing numbers have been fabricated and re-enforced by the new techniques of the Graphic Revolution" (p. 186).
An image is also believable, says Boorstin (1972, p. 183). The most effective images are usually ones doctored for believability. Understatement appears to be one of the best paths to believability. (Ivory soap is "99.44% pure"). Boorstin says, "A prudent advertiser or master of public relations takes advantage of the increasingly reckless use of superlatives to make his own hyperbole seem a conservative truth" (1972, p. 188).

An image is passive in that it is already supposed to be congruent with reality. The producer and consumer of the image fit into it, rather than strive toward it; passive relations, according to Boorstein (1972, p. 188).

Images are invitations to behavior. Boorstin states that there was a time when if you wanted a person to buy cognac you would describe the virtues of cognac; now the persuasion is more indirect (1972, p. 192). Boorstin hypothesizes that the hypnotic appeal of the image takes the place of the persuasive appeal of the argument.

An image is vivid and concrete; it often serves its purpose by appealing to the senses ("The Skin you Love to Touch") (Boorstin, 1972, p. 193).

An image is simplified in order to exclude undesirable and desirable aspects. Boorstin (1972, p. 193) says, "The most effective image is one simple and distinctive enough to be remembered, yet not so handy as to seem the natural symbol for the whole class of objects it describes" This has happened to "aspirin", for example, and has almost happened to Kodak.
It appears that one of the largest differences between advertising strategies of the 1930's and the 1970's is the ambiguity of the images. An image is ambiguous in that it floats somewhere between the imagination and the senses, between expectation and reality. Boorstin states, "It is ambiguous, for it must not offend. It must suit unpredictable future purposes, and unpredicted changes in taste. Many such changes may have taken place before the image can be remade to contain them. It must be a receptacle for the wishes of different people" (1972, pp. 193-194). An example is a new brand of men's suits photographed as a blur standing on the street rather than a sharply focused image. The fuzzy outlines allow the viewer to see whatever desired. Boorstin predicts that the non-representational technique is apt to become more popular in order to give the viewer ample scope for unpredictable, exaggerating expectations (1972, p. 194).

Since there is no way to unmask a pseudo-image, Boorstein believes it becomes even more interesting with efforts to debunk it. Therefore, some of the most effective modern advertising consists of circumstantial descriptions of how the images were contrived, how tests were devised, and how trademarks were designed. Boorstin (1972) states, "Paradoxically, too, the more we know about the tricks of image building, about the calculation, ingenuity, and effort that have gone into a particular image, the more satisfaction we have from the image itself. The elaborate contrivance proves to us that we
are really justified (and not stupid either) in being taken in" (p. 195).

Boorstin (1972) has identified several novel appeals that characterize the most successful advertising statements:

1. The appeal of the neither true-nor-false; a new limbo in which persuasive statements are made that do not violate truth and morality ("the better beer"), (p. 214).

2. The appeal of the self-fulfilling prophecy in which things are made to appear true by saying they are so (testimonial-endorsement) (p. 216).

3. The appeal of the half-intelligible in which the latest product language personally reassures us that progress is being made and that the pace exceeds our ability to follow ("hydro-matic drive", "uniweld body") (pp. 222-223). As the function of objects becomes more attenuated, Boorstin says we can then no longer be "deceived" about the "function": for example, a ballpoint pen is no longer something to write checks with, but something vaguely useful for writing on butter or under water (p. 223).

4. The appeal of the contrived in which we enjoy being courted. Boorstin states, "we delight in the headstands and handsprings of advertisers" (1972, p. 224).
Boorstin (1972, p. 227) concludes that credibility, not truth, is the modern test. It appears to be more important that a statement be believable than true; and as long as believability remains the test, the advertising world will not collapse.

Advertising as a pseudo-image, says Boorstin (1972), or that which looks like a pseudo-event, seldom fails to dominate. Boorstein states, "The momentous sign of the rise of image-thinking, and its displacement of ideals is, of course, the rise of advertising. . . . daring not to admit we may be our own deceivers, we anxiously seek someone to accuse of deceiving us. 'Madison Avenue', 'Public Relations', . . . . we refuse to believe that advertising men are at most our collaborators, helping us make illusions for ourselves" (p. 205)

Subliminal Seduction

Wilson Bryan Key has revealed subliminal advertising techniques in Subliminal Seduction: Ad Media's Manipulation of a not so Innocent America (1973) and Media Sexploitation (1976). The techniques revealed by Key sexually arouse the reader by devices the conscious mind cannot detect.

Marshall McLuhan in "Media Ad-Vice: An Introduction" to Subliminal Seduction states, "All of my recommendations, therefore, can be reduced to this one: study the modes of the media, in order to hoick all assumptions out of the subliminal nonverbal realm for scrutiny and for prediction and control of human purposes" (1973, p. vi).
In the Introduction to *Media Sexploitation*, Richard D. Zakia, Director of Instructional Development, Rochester Institute of Technology states, "... you should become a believer in the potential power of media and advertising to influence, control, and direct our behavior. The purpose of advertising is to persuade, to sell products. For some advertising agencies, this may mean selling regardless of human consequences" (1976, p. xv).

Key (1973, 1976) claims that everyone has been victimized and manipulated by the use of subliminal stimuli directed into the unconscious mind by the mass merchandisers of media. Key accuses widespread use of the techniques by media, advertising, public relations, corporations, business and the Federal Government. Key (1973) states, "This assault from the media has a specific ability to manage, control and manipulate human behavior in the interests of a multibillion dollar national economy. We know, beyond any question, that subliminal stimuli sell products" (p. 13).

The moral implications regarding use of subliminal techniques are overwhelming. Key (1973, 1976) has published 79 photographic reproductions of current ads employing subliminal techniques to manipulate behavior.

**DESIGN OF INSTRUCTIONAL FILMS**

The literature related to the design of instructional films that influence attitudes, motivations, opinions, and values appeared
to fall into one of five categories. First, expert and experienced sources in the field offered their suggestions. Second, several design strategies with direct application were reported. A third category relates to those decisions a designer is encouraged to make. In some cases, empirical evidence guides the decision-making, and in other cases it does not. Many sources offered advice and comment for the designer, which is included in the fourth category.

**Recognized Sources: Suggestions**

Instructional design resource books were reviewed to determine specific design guidelines for producing instructional materials in the affective domain and to determine cognitive/affective production differences (Gagné and Briggs, 1974).

Briggs (1970) presents a model for the designing of instruction that employs "the systems approach". Kemp (1971) describes the steps of a plan for instructional design. Gagné and Briggs (1974) describe the learning conditions for an attitudinal objective. However, none of the three direct attention to the potential differences in instructional materials design for cognitive, attitude, or motor skill instruction. Dale (1969) describes media and materials of audio-visual teaching, but does not identify how a specific medium influences differing instructional objectives.

Reisz and Millar (1968) was reviewed to determine whether a reference on a specific production element such as editing might provide some working guidelines. They state, "The aim of the documentary
or story-film editor is the creation of mood, the dramatization of events. To the editor of educational films, these considerations are irrelevant. The purpose of his films is to teach and his aims must be clarity, logical exposition and a correct assessment of the audience's receptivity . . . The general aim of the editor of educational films should be smoothness of presentation" (1968, p. 171).

Although Reisz and Millar have identified worthy aims, their opinions reflect one school of thought that educational and instructional films should not create a mood or dramatization. Perhaps their opinion stems from the 16 mm film research that indicates aesthetics does not significantly improve learning. The implication appears to be that dramatic, aesthetic, or emotional oriented sequencing and film editing have no value educationally. The contrary may be true for attitudinal objectives, if one were to subscribe to some of the social psychology findings on attitudes. Since production guidelines are not apparent in this literature review, one wonders at the perhaps premature conclusion subscribed to by Reisz, Millar, and others.

Jones' (1974) opinion is in conflict with Reisz and Millar. Jones describes a good film as one that has the power to evoke a response from its viewers (p. 8). She describes a variety of emotions aroused by a good film - interest, excitement, envy, dismay, alarm, anger, sympathy, enjoyment. Jones criticizes educational film sources
for removing traces of human emotion and replacing them with a straight catalogue of facts to avoid bias. The result, claims Jones, is a large number of films not remembered because of boredom, or a sound conclusion is invalidated because of emotion being removed from a situation which demands it. Jones says, "The obvious ability of the film to arouse emotions in the propaganda film has obscured its power in other types. The enjoyment of sheer beauty is a legitimate purpose in film viewing; so is the excitement of interest in an intellectual theory. If the film leaves the audience exactly where it found them, it hardly qualifies as a good film" (p. 8).

Contemporary research studies on instructional film design elements have been done by Wagner (1953), Harber (1953), Miller (1970) and Schmidt (1972).

Wagner (1953) reported ten conclusions as a result of his study:

1. Its effect will be proportional to the degree to which it is based on the common interests and needs of the audience for which it is intended.
2. The vocabulary level of the audience should be kept clearly in mind in preparing film narration, but it must be recognized that what is said is seldom as important as what is shown on the screen.
3. The structure of the film should be simple enough to be understood by its intended audience. It should not contain too many different ideas, nor move too fast.
4. The rate at which the commentary is delivered should be between 100 and 130 words per minute.
5. The film may well include an introduction which clearly and succinctly poses the problem, orients the audience, and establishes 'set,' or a condition of readiness for the presentation.
6. Key ideas may be repeated two to four times for emphasis and reinforcement, but the repetitions should be varied and aesthetically satisfying as well. The summary is also useful as a form of repetition.

7. The running times of classroom films may vary from five to 30 minutes to fit the class period. Within this limit, the major consideration in film length will not be the capacity of a 16 mm reel, but the nature of what is said and the best manner of saying it in motion picture form.

8. It should be recognized that the motion picture experience is an active, not a passive one, and that audience involvement in any type of film is a matter of degree. The elements of identification, familiarity, anticipation, participation, and dramatic structure will be built into the film to the degree necessary to bring about that changed behavior and sharing in common which marks successful communication and effective learning.

9. Color, music, sound, animation, optical, and special effects will be used selectively to simplify, amplify, and reinforce the main idea. The possible distractive influence of these factors will be studied. The subliminal effects of these elements will also be recognized and further explored.

10. The educational film will be deliberately designed to promote the finding and testing of meanings. In such films there will be more 'forked-road' situations, more use of 'open endings', to make the film experience a means of promoting new and better ways of thinking and behaving (Wagner, 1953, pp. 241-242).

Two of these conclusions have direct applicability to the design of instructional films to influence attitudes. One conclusion is that the film effect is proportional to the common interests and needs of the audience. The second is that active involvement can be brought about by the elements of identification, familiarity, anticipation, participation and dramatic structure (1959, p. 170).
Harber (1953) examined five films selected from a survey of sixty-six California School Districts. Those films most requested by teachers and considered best by audiovisual specialists were identified through the survey. Harber analyzed the five films and made the following generalizations:

1. A major power of the educational film lies in its abilities to present concepts involving motion.
2. In selecting content, careful consideration should be given to which parts of reality will be visually successful.
3. Music should have some relation to the content of a film, rather than being used only as an emotional stimulus.
4. The content of the films analyzed fit into a specific place in the curriculum of California Schools.
5. Camera techniques and vocabulary and pictorial levels of the films were geared closely to the learning levels of their intended audiences.

Miller (1970) isolated nine pre-production elements as dependent variables in the analysis of fifty of the most frequently requested films from four major film libraries during the 1967-1968 school year. The major purpose of the study was to describe the relationship between selected findings of 16 mm instructional film research and the incorporation of these findings into films produced for elementary grades. Miller analyzed four primary elements: participation, knowledge of results, redundancy, and attention-directing techniques; and five pre-production elements of a secondary nature: introduction, organizational outline, review, readability of film commentary, and color as a discriminating cue. A film rating scale was constructed to determine the inclusion or exclusion of eight of the pre-production elements; the
ninth element, readability was analyzed separately using the Flesch Reading Ease formula. The data were further analyzed in relation to the independent variables: producer, subject area, year of production, film running time, grade-level distinction, and color designation. Findings indicated that "producer" was the independent variable which was associated with the most significant results. Films produced during 1952-1956 included knowledge of results to a significant degree (0.05). A highly significant difference (0.01) indicated that producers attempted to direct film commentary to the target audience. None of the other independent variables were significant.

Technique was then used to determine instructional film producers' opinions.

Of the fifty-five operational generalizations, ten were not analyzable within the limits of the study. Evidence of use of 70% of the remaining forty-five generalizations was found in the majority of applicable films. Schmidt developed a profile of the sample, based on the compatibility of the films with the operational generalizations. Three categories of findings were reported.

Category A represents features of design incorporated into the majority of the sample of 20 films that were compatible with the operational generalizations. The majority of the 20 films . . .

1. used a pictorial stimulus-verbal response or label pattern.
2. used words generously with pictures except when the intent of the film was ambiguity.
3. combined visual and audio elements throughout the film.
4. used vision for spatial distinctions rather than for temporal distinctions.
5. used audition (the sense of hearing) for temporal distinctions rather than for spatial distinctions.
6. used both vision and audition to develop concepts involving time and space.
7. used attention-gaining devices (e.g., zooms, music, stop motion) but did not use them to call attention to irrelevant materials.
8. used attention-directing devices (e.g., animation techniques, color, slow or fast motion, etc.) to call attention to relevant parts of a visual which may otherwise have been overlooked.
9. used color, generally for discrimination purposes, but was careful to insure that it not be a distraction.
10. used the visual elements primarily and narration and other audio elements secondarily.
11. simplified film commentaries as much as possible.
12. did not use unfamiliar names or technical terms in the commentary.
13. did not use either too little or too much talk in the narration.
14. had an average narration rate of 140 or fewer words per minute.
15. did not use a style of narration that talked down or lectured to the audience.
16. did simplify the message as much as possible.
17. used the active form of sentence structure.
18. had visual images that were simplified as much as possible.
19. had a rate of development that was slow enough for the viewer to grasp the material as it was shown.
20. had a slowing of the rate of development at points at which it was necessary for the viewer to change attention from one source of information to another.
21. had an introduction.
22. used introductions to alert the audience as to what to expect and thereby to direct attention to relevant features.
23. did not use fades or dissolves to contribute to the informational content of a film, but were used as punctuation devices and to make an aesthetic contribution to a film.
24. used music with films dealing with the affective domain to help establish the mood and the pace. Music was not used to add informational content to the films. Title and introductory music appeared to make an aesthetic contribution to the films.
25. used a size or time frame of reference when dealing with objects unfamiliar to the intended audience.
26. did not generally use dramatic sequences, but, when used the subject clearly called for it and the sequences were done skillfully.
Category B represents features of design incorporated into the majority of the sample of films that were contrary to the operational generalizations. The majority of the 20 films . . .

1. were not designed for highly specified audiences.
2. did not use audience participation techniques.
3. did not use feedback techniques.
4. had no summary.
5. did not use repetition.
6. had a mean length of 26.6 minutes. Ranged from 8 minutes to 56 minutes. (Recommended length: 20-25 minutes or less).
7. did not relate content to specific instructional objectives.
8. did not use negative examples through the showing of error.
9. made very little use of still pictures. Still pictures were defined as static, non-motion pictures. Still pictures were defined as static, non-motion representations that, had they been recorded by a motion picture camera in the normal manner, they would have shown motion. However, since the original scene was photographed with a still camera, motion was frozen.
10. did not use field testing either through the trying out of ideas in script or story board form or in rough cut form by using sample audiences with opportunity for revision.

Category C represents features of the sample that the majority of films had that were not based on research findings or producer opinion. The majority of the 20 films . . .

1. had an average shot length of about 10 seconds. They ranged from 2 frames in length to several minutes.
2. ranged in age from the very recent - 1971 to the old-1946. The mode age was 1969.
3. were intended to (or had the potential to) foster, the affective domain (3 films), affective-cognitive (13 films), cognitive (4 films), psychomotor (0 films).
The use of music has been studied by Schmidt and Schwartz. Schmidt (1972) found that music was used with films dealing with the affective domain to help establish the mood and the pace. Schwartz (1970) studied film music in an attempt to determine the effect of three types of background music, combined with film, upon the attitudes toward militarism and pacifism held by tenth grade social studies students. Schwartz made the following conclusions:

1. Students exposed to a non-verbal visual communication with an anti-war theme did not change their attitudes toward militarism and pacifism.

2. Students exposed to a non-verbal visual communication with an anti-war theme, which was accompanied by a supportive non-verbal musical soundtrack became significantly more pacifistic after exposure to the communication.

3. Students exposed to a non-verbal visual communication with an anti-war theme which was accompanied by a glorifying non-verbal musical soundtrack, became significantly more pacifistic after exposure to this communication.

4. Students viewing a non-verbal visual communication with an anti-war theme, which was accompanied by a contradictory non-verbal visual soundtrack did not change in attitude toward militarism and pacifism after exposure to this communication.

Wagner (1966, pp. 81-96) says the major consideration in film (and other media) design in education in the future seems to involve two kinds of productions: (1) the effective transmission of information, clarification of the abstract, and closing of perceptual gaps (cognitive domain) and (2) the transformation of experience deliberately intended to create ambiguity and to open gaps in existing
perceptions, and ideas (the affective domain). Wagner suggests the
first design implies a programmed function like the logical manner
of a Socratic dialogue; while the second implies a non-programmed
function like that of Plato's teacher who so doubted the exactitude
of words that he decided he was only going to point the way to
learning.

McLuhan (1974) sees the film medium as one that is more consist­
tent with Wagner's first production type. Motion picture is described
by McLuhan as a hot medium that extends one single sense in "high defini­
tion" (well-filled with data). Hot media do not leave much to be
filled in by the audience and therefore are low in participation.
Naturally hot media have different effects on the user than a cooler
media such as computer assisted instruction (p. 22).

Perhaps film is a hot medium if designed as subscribed by Reisz
and Millar (1968). However, films do not have to be designed as such;
although admittedly many are. Films can have creative, involving
designs as described by Jones (1974) and Wagner (1959).

In terms of designing films for active involvement, Wagner says,
"It should be recognized that the motion picture experience is an active,
not a passive one, and that audience involvement in any type of film is
a matter of degree... The elements of identification, familiarity,
anticipation, participation, and dramatic structure will be built into
the film to the degree necessary to bring about that changed behavior
and sharing in common which marks successful communication and effec­
tive learning" (1959, p. 171).
Hoban identifies that the Army introduced dramatic techniques which were used only in entertainment films of the past which were "emotionally possessive, as well as intellectually stimulating" (1946, p. 21). The Army appeared to use the broad concept of human behavior dynamics, coupled with an empirical understanding of behavior and a positive approach to its behavior and control (p. 22). Army films appeared to be successful in showing nobility of cause and morality of conduct under a strong emotional stress.

Hoban identified five major principles for future instructional film production that emerged from war film production. Only one of the principles relates to designs of attitudinal film production. This principle suggests a shift in emphasis from subject matter, as such, to subject matter as it relates to the interests, abilities, and basic needs of specific audiences (1946, pp. 57-58).

Hoban's principle is consistent with Madsen (1973), Allen (1971) and Knowles (1967).

Madsen identifies some practical implications of the principle of reinforcement:

1. Film and television programs intended to achieve specific objectives should be preceded by careful research on the present beliefs and knowledge of the target audience.
2. Programs should attempt to achieve only modest results by extending and reinforcing present knowledge and attitudes when introducing new material. (NOTE: pre-established opinions gives a producer full discretionary powers).
3. Film and television programs are far more effective when planned and used as a progressive cumulative series where all segments function to achieve common objectives (1973, pp. 10-11).

Allen (1971) says that films can modify attitudes, motivations, interests, and opinions if the design stimulates and reinforces existing beliefs. If, however, films are contrary to beliefs, personality structure, or social environment, there is little evidence that changes can be made (p. 117).

Knowles has adapted some principles for increasing the impact of a program from C.E. Swanson's Guides to Success in Educational TV in 1953 (1967, pp. 303-304). Those that have applicability to film design are:

- The more a program reinforces the needs and attitudes of people, the more successful it will be.

- The more the content of a program reinforces what an individual has experienced, the more successful it will be.

- The more the content of a program reinforces needs an individual expects to face in his near future, the more successful it will be.

- The more the content of a program takes advantage of reinforcement from other media and the immediate social situation, the more successful it will be.

- The more the content of a program reinforces needs which relate to specific role, or things we do, the more successful it will be among those who take the roles.
-The more frequently and the more recently the content of a program reinforces needs, the more successful it will be.

-The more immediate or pleasure giving the rewards offered to individuals by the content of a program, the more successful it will be.

-The more emphasis upon, and use of, delayed-reward-subject matter in a program, the greater the intellectual ability required of the audience.

-The more the key ideas, the major themes, the essential information in a program are translated into photograph, the more successful will be the program.

-The more information and the greater the complexity of ideas in a program, the more intellectual ability will be required for learning.

-The more the personalities in a program appeal to individuals, the more successful it will be.

The work of Hoban, Madsen, Allen, and Knowles appears to be in harmony with the synthesis of social psychology research reported by McGuire.

In designing films, Hoban (1946, p. 94) says there must be a greater variety of events that relate to the intended major understandings, appreciations, or behavior patterns in order to provide a depth and a variety of meaning. The commentary must change from a lecture format in abstraction and broad generalization to an unobtrusive descriptive, explanatory, interest-provoking, and question-raising style that meets the audience on their own terms.
Hoban describes the two schools of thought held by the Army on the proper technique of treating a subject in training films (1946, pp. 95-96). One held that the major emphasis should be on accuracy, completeness, and clarity. The other held the premise that films should avoid dullness and be made interesting through use of dramatic structure, character development, and dialogue, and occasional humor. This school of thought held that much of the influence on the mind, emotions, and actions derived from the ability to reproduce life situations with dramatic realism which involved sensation and emotion in learning to effect permanent behavior change. Experience with the two schools of thought clarified that neither were irreconcilable, nor could be applied exclusively. Hoban therefore recommended two working rules pending future research:

I. In general, story treatment, characterization, and use of various interest-catching techniques are appropriate in films intended for introductory or refresher use in teaching a subject to a general audience. The devices of dramatization, narrative, plot, and live action, dialogue, and sound effects serve to make the subject interesting and important, thus laying a solid foundation for continued audience interest in the subject, arousing a curiosity to know more about it, and motivating a strong desire to attain a high degree of achievement in the subject, whether it deals with basic electricity, human biology, health or nutrition, or brotherly love.

II. In general, the purely expository type of film, with straight factual presentation and purely impersonal commentary and explanation, is appropriate to any subject in which it can reasonably be assumed that interest, curiosity, and the
motive for achievement are already present in the audience, and that its curiosity for more knowledge has been awakened, and its energy has become directed toward mastery of the subject. This straightforward type of film thus serves to satisfy the existing urges for knowledge. In so doing, it may deepen interest, transform shallow curiosity into resolute inquiry, and turn the desire for achievement into the confidence and satisfaction that come from intellectual conquest of the unknown. An audience is impatient of any device in films or other teaching materials or methods that interferes with pursuit of knowledge of a subject in which it has already achieved some competence and in which it wishes to advance to further technical or specialized competence (1946, pp. 96-97).

Research reports reviewed to date are consistent with Hoban's suggested rules.

Allen (1956) cited a study by McFarlane in 1945 that suggests that a "story" film might be better in developing attitudes than a "nonstory" film (p. 128). In 1960 Allen cited several research studies with results that suggest that "story" films might be better for developing attitudes than "nonstory" films (p. 118).

Other studies with specific design implications relate to the use of color versus black and white, film length, and level of arousal.

From the 1940's on, much evidence began to accrue on the difference between color versus black and white films. Most of the research deals with retention and cognition. Hoban reports one study, however, done by Scanlon in 1967 that indicated that a group of subjects watching color appeared to have been more moved by a state
funeral and their reports contained a good deal more emotional content than a group watching the same televised coverage in black and white (1971, p. 23).

Wagner (1970) cited Miller and Ballman's prediction in 1968 that 16 mm educational usage will be in the form of a medium-length film. They suggested a design to provide motivation by limiting facts, and rather concentrating on a state of mind in which the viewer wants to fill in the deliberate informational gaps himself. Wagner acknowledged that although the length is not the essential quality of a provocative open-ended film, it does take time to establish a mood and sense of involvement (p. 385).

Wagner cited comments on the "total involvement" through high visual density, swift-paced, and gaps in continuity which at best stimulate intellectual discovery and promote critical thinking and at worst "leave no more trace of their existence than a burnt-out firecracker" (p. 386).

Discrepant results in two studies on the different relation of physiological arousal during auditory and visual learning stimulated research by Levonian (1968). Levonian's study indicates that the relation between arousal and retention was virtually the same for information presented auditorily or visually (p. 57). Levonian concludes that perhaps it is primarily the level of arousal, and not its mediator, which influences the temporal trend of retention
This conclusion, if valid, allows the instructional film designer flexibility to choose the manipulation of the modalities based on other cinematic considerations.

Earlier, Wagner recognized the problem in identifying the target audience. Madsen (1973) suggests that there is an appropriateness to seek out group leaders as the target audience. Since leaders are more effective than films in influencing public issues, but leaders are more influenced by films than the average viewer, Madsen recommends when dealing with a cohesive group to structure the film to influence the opinion leaders on a given issue (p. 22). He advises the film maker to carefully research the group attitude of his target audience before undertaking production intended to change that attitude. Madsen also suggests to research whether the target group is undergoing the kind of internal stresses that will tend to make the individual member susceptible to media influence. Research seems to indicate that opinion leaders should be the target group for influence when a cohesive group opinion exists, while the individual can be best reached by appeals where there is a situation of unstable groups (p. 22).

The film maker is well advised to follow those documented instruction techniques. This philosophy is consistent with Hoban and van Ormer's Principle of Instructional Variables: "Established instructional techniques, properly built into the film or applied
by the instructor, substantially increase the instructional effectiveness of a film" (1950, pp. 9-7).

Decisions for the Film Designer

Glaser (1966) categorizes the instructional design components into four steps: (a) analyzing the characteristics of the subject matter competence, (b) diagnosing the learner's pre-instructional behavior, (c) carrying out the instructional process, and (d) measuring learning outcomes (p. 434).

These steps, according to Glaser (1966), are influenced by certain conditions that influence instruction (p. 441). The conditions seem worthy of discussion since they are decisions that need to be made by the film designer and also are related to elements raised earlier in the social psychology literature. The conditions are sequencing, stimulus and response factors, amount of practice, errors and corrections in response contingencies, and effective reinforcers in response contingencies.

Sequencing decisions need to be made on some basis, concerning what is to be learned before what. Glaser (1966) reports that sequencing of behavior in instruction requires detailed analysis. It is not a simple matter of progression of difficulty in the learning hierarchies, but is quite complex. An increasing number of research studies have lead Glaser to conclude that generalization and transfer to new situations cannot be reasonably assumed. The identity of structural subconcepts determining the nature of transfer is a central problem in learning theory (p. 442).
At a more elementary level, Pryluck (1968) reports that there is no known limitation on the placement within a sequence of any class of camera shot. It is difficult to signal the nature of the relationship between shots; in other words, there is no filmic equivalent to "is", "of", "the", "a", "that", "which", etc. (p. 389).

In terms of stimulus and response factors, Glaser urges careful examination of the display and response characteristics for student interaction with content (p. 443).

The amount of practice and review designed into a program is to be determined on Glaser's advice by empirical data. He recognizes that it is highly influenced by individual learning differences (p. 443).

Since the consequences of errors and corrections modify an individual's learning and behavior, Glaser supports contingent relationships as a key area for research (p. 443). Response contingencies to be considered are reinforcing events, extinction, punishment, and correction (p. 444). Some evidence already presented on reinforcement and anxiety gives some guidance in this area to the film designer.

Effective reinforcers as response contingencies build in previous performances. Glaser suggests that the performance is only a reinforcer if it has a higher probability of occurrence than the behavior it is reinforcing (p. 446).
Glaser refers to research as identifying some significant variables that influence exploratory behavior, as characterized by stimuli that are novel, unfamiliar, complex, surprising, incongruous and asymmetrical (p. 446).

Glaser's conditions have direct implications for the designer of instructional sequences. Even though the conditions pointed out by Glaser are relevant, these are very general. The instructional designer of films still has few specific working guidelines to follow. The data do support careful needs analysis, and pilot-testing of materials before final production and distribution.

Desired responses, or terminal behaviors are, of course, the enroute attainment of instructional objectives. Gerlach suggests the amount of desired learning from an instructional film is largely a function of control over the learner's responses by the stimuli in the film (1966, p. 334). These stimuli naturally relate directly to the instructional objectives.

Advice and Comment

Tosi states, "The major fault in instructional design today is the frequent failure to recognize the distinction between three separate design elements: The medium, the presentation form, and the "content" (1969, p. 6).

Speaking to design elements, Wagner reports that although there is no single universal design, we do know something about how the elements operate in film communication (1959). A mechanical
application of a formula is not the answer. Rather, judicious selection and use of film techniques and rhetorical elements should be chosen based on the intended purpose and the intended audience. Wagner points out that it has been demonstrated that without such selectivity, the elements of a given film may conflict and produce inhibitory or negative effects which destroy the communication (p. 171).

Wagner later reports some evidence of what may be called "film sense" or the ability of the skillful practitioner to design films that teach. Wagner states that this is a necessary sense in applying research findings intelligently in the production of creative instructional films (1968a).

RESEARCH METHODOLOGY

Field Study Versus Laboratory Study

Mass media effects are primarily tested in field settings, while face-to-face communication is tested in the laboratory. Problems arise when the results of the two types of communication are compared.

Garry and Kingsley acknowledge the considerable discrepancy on the impact of communications under field study versus laboratory study situations (1970, p. 504). Field studies, in general, show small attitude changes at best, while laboratory studies indicate that large shifts in attitudes are possible. Some of the differences are inherent in the survey versus controlled experiment methodology, but more differences are associated with the differential aspects of
the same variables as they interact with each other. Other differences can be attributed to types of subjects, various sets of content, personality variables, selective exposure, and immediacy of testing.

Hovland (1971, p. 497) attributes the discrepancy to two kinds of factors: one, the differences in research designs themselves; and two, the historical and traditional differences in the general approach to evaluation characteristics of researchers employing an experimental approach in contrast to the correlational method.

In an experiment, the audience is fully exposed to the communication; while in the naturalistic setting of survey research, the audience is limited to those who expose themselves to the communication. Since the unexposed group is usually highly biased, surveys primarily describe effects resulting on those self-selected who are already in favor of the communication. Naturally the amount of change is thus higher in experimental research.

Laboratory studies tend to use primarily college students in a classroom type situation, while mass media generally employ a randomly-selected general population in the natural communication setting. Consequent supplementary effects are produced by discussion with friends and family in the survey situation.

Laboratory studies usually disguise the persuasive intent, while mass media usually did not.
Laboratory studies usually measure effects soon after the treatment, while mass media followup is usually days or weeks after the message. As presented earlier, McGuire recognizes methodological artifacts, but still, in part, discounts their significance (1969, p. 231).

The types of issues discussed in the communications also appears to vary. Hovland (1971, pp. 500-501) indicates that the typical experiment studies a set of factors or conditions expected on the basis of theory. Issues are deliberately sought that involve attitudes which are susceptible to modification through communication. In survey procedures, socially significant attitudes, deeply rooted in prior experience and involving personal commitment, are typically employed. This certainly explains, in part, why survey results typically show little modification of attitudes by communications, while experiments indicate marked changes.

Certainly the impact of direct intimate communication cannot be denied. It has advantages that the mass media channel will probably never overcome; especially in terms of the individualized response aspects. However, a more conservative approach is one that does not generalize research findings between two such diverse settings. One has only to look at the obvious overt influence of mass media, particularly in the advertising realm, to question the wisdom of such a comparison.
Hovland (1971, p. 509) sees no contradiction between experimental and correlational studies since the seeming divergence appears to be satisfactorily accounted for based on differences of definition of the communication situation, and differences in the type of communicator, audience and kind of issue utilized. Hovland suggests a better integration of the findings associated with the two methodologies since a genuine understanding of the effects of communications on attitudes requires both.

Another confounding factor on research prior to 1954 is identified by Weiss. Weiss says that much of the research customarily cited on mass communications effects on opinions and attitudes has been under experimental conditions of compulsory exposure of scientific select audiences to single communications (p. 101). Compulsory exposure is not in concert with the individualized instruction concept of today's education. One can question the generalizability of compulsory oriented findings.

Research Analysis Techniques

Salomon has already been quoted as directing researchers to look for interactive versus main effects with film design factors and viewer personality traits and individual differences (1968, p. 225).

Film production, by the nature of the medium, employs multiple variables. Pacing, color, camera angle, sequencing, point of view, style of narration, lighting, etc. are all of considerable importance to the film maker. Therefore, the study of correlation of
variables is a crucial aspect of film research. Multiple-variable analyses has been relied upon heavily. Because of the difficulty in experimentally investigating multiple-film variables, research has necessitated the production of experimental versions of a given film. This is expensive and time-consuming.

Many film researchers have not reported their statistical techniques in the literature. When only findings are reported, the consumer of research is handicapped to judge the validity of a study. Certainly the statistical analysis tools of the time the bulk of the film research completed could not adequately account for the multiple variable influences. Multiple-regression techniques have been developed and refined in only the past few years.

The use of one-way-analysis of variance techniques assumes random samples of the dependent variable from normal populations with equal variances. The samples must be independent. This single classification technique is for analysis of data when the researcher has organized data to test for differences in a criterion variable among groups as they relate to a single independent variable. Researchers who employ this technique in multiple film design research are open to harsh criticism.

Moore (1971) studied a new approach to the famous Payne Fund studied done by Peterson and Thurstone. After their experiment with the film "The Birth of a Nation", the 1915 film on the civil war
and reconstruction was pronounced as the sole cause of a measured attitude change in students of an all white school, from favorableness to unfavorableness toward negroes. The 1971 conclusion of a carefully structured and controlled experiment was that "The Birth of a Nation" produced no measurable attitude change of hostility. Moore concluded that D. W. Griffith's famous film may have been blamed for forty years for causing something that indeed it cannot cause because the testing and measuring methods in 1931 were too weak to isolate and define cause and effect in attitude measurement with any fair degree of accuracy.

Research Results are Used

Schmidt (1972) acknowledged that the design of an instructional film is a creative endeavor that does not lend itself to a formula for all situations. Nevertheless he was able to develop a profile about the general design of some of the "best" instructional films. Seventy percent of 45 generalizations deduced from research and opinion of some of the top instructional film producers were evident in the majority of 20 applicable films. Wagner found a close agreement between the design of 21 widely used films and certain empirical and experimental evidence (1959).

It appears that producers and film makers do respond to film research results. However, rather than producers using results in a scientific fashion Schmidt (1972) concludes that research findings and expert opinions are more likely finding their way into their
conventional wisdom. There is some evidence to support the notion that outstanding film producers have an intuitive "film sense" regarding some of the research findings.

SUMMARY

This chapter on related literature and theory has documented three major generalizations:

1. Opinions, attitudes, and behaviors can be purposefully changed; more in intensity than direction.

2. A mediated communications channel, such as 16 mm instructional film can be a vehicle by which this change is facilitated.

3. Instructional design guidelines and principles for the "affective" dimensions of learning are limited.

Instruction, advertising, and propaganda are all intended to influence attitudes, and hence behavior. Moral, ethical, and political values determine the nature of employed strategies in each. For example, instructional films may alter reality slightly to increase the believability, but would never resort to the extremes of the subliminal techniques of advertising, nor the hatred tactics of propaganda. The objectives and rationale
supporting each mode of communication and the intensity of the desired response differ; while instruction focuses on the imparting of knowledge to reach a factually documented position, propaganda and advertising desire to manipulate and control behavior for their own self-serving gain. Yet these seemingly diverse communication systems share some commonalities, as revealed in this related literature and theory.

Each is represented by a source, who initiates a message, through a channel, that is, hopefully (a) accepted by the receiver as true, (b) integrated into the receiver's cognitive and affective perception, (c) added to the receiver's behavior repertoire, and (d) enacted by the receiver in the future in response to the same or similar message.

Effective instructional film, propaganda strategies and advertising campaigns are all purposefully designed, planned and implemented.

To elicit the desired response, each communication has to stimulate the receiver's cognitive, affective and behavioral components, as described by Cartwright (1971).

These communications share the mediated channels by which their messages are transmitted. Each has a documented history of successful transmission through 16 mm films, which in-and-of itself is reported to add a dimension of prestige and believability to the message.
Some of the same barriers to message reception are shared by instruction, propaganda, and advertising. Among these barriers are: group norms; family influence; interests, abilities, and basic needs; audience characteristics, such as age, sex, abstract IQ, financial status, prior experience, profession, prejudices, etc.; and environment.

Depending on the interaction of the variables mentioned above with the message, one of three potential outcomes may be expected.

1. a change of attitudes and/or behavior in the desired direction.
2. a change of attitudes and/or behavior in an undesired direction ("boomerang effect").
3. reinforcement of an existing attitude and/or behavior.

The investigator has derived from this search of related literature and theory four message design factors in which instruction, propaganda, and advertising are all consistent. These are as follows:

1. The characteristics of the message source are carefully conceived to facilitate the receiver's identification with the source.

"Identification" and "modeling" are terms employed in the educational realm to describe
this instructional strategy. Sources are Cooper and Dinerman (1951), Weiss (1954), Allen (1956), Mager and Bandura (1968), McGuire (1969) and Hoban (1971).

Doob (1935) describes the use of models as "alluring bait" in propaganda.

Boorstin (1972) elaborates on the effectiveness of "personal testimonials" in the advertising world.

2. Establishing the credibility or believability of the message appears to be essential in these communications.

"Instruction employs such terms as "attractiveness, power, prestige, expertise, and trustworthiness". Sources are Lazarsfeld and Merton (1948), Cantril (1952), Hovland and Janis (1953), Klapper (1960), Travers (1963), Hayman and Dawson (1968), McGuire (1969), Garry and Kingsley (1970), and Madsen (1973).

Propaganda employs terminology such as "prestige" (Fried, 1942) and "witnessed reality" (Doob, 1948).

Boorstin (1973) elaborates on the need for advertising to be perceived as believable and credible, but not necessarily true.
3. Repetition of the message for receiver acceptance during a given time period is a research conclusion held by Doob (1935, 1948), Fried (1942), Hoban (1946), McGuire (1969), and Boorstin (1972).


Additionally, instruction, propaganda, and advertising agree that their influence is more effective if specifically versus generally directed (May and Lumsdaine, 1958; Allen, 1960; Doob, 1935, 1948). Also, it is apparent that all three have cumulative influence and that a one-time exposure to a message may have no effect (Doob, 1935; Weiss, 1954; May and Lumsdaine, 1958; Krugman, 1970; Allen, 1971).

One question raised in this research was what descriptive factors from instruction, learning, and the persuasive communication literature and theory were employed by the producers of health related 16 mm films entered in Chris Awards Competition during 1974-1977.

Schmidt (1972) concluded, "At least a good deal of the best supported film research and the opinions of some of the nation's top instructional film producers are finding their way into the design of some of the best films used for instruction" (p. 334). One purpose of this investigator's research was to determine whether
descriptive data from this related literature and theory found its way into the design of Chris Award-winning films that had "affective" components or objectives.

This research is the fifth contemporary study on the elements of instructional film design, preceded by Wagner (1953), Harber (1953), Miller (1970) and Schmidt (1972). This research differs from the others on four dimensions.

First, the sample is drawn from films judged in film festival competition based on set, defined criteria. Wagner (1953) used nine films most used with school groups and thirteen films most used with adult groups as identified in the 1953 publication of the Educational Film Library Association's "Report on Most Used Films". Harber (1953) examined five films selected from sixty-six California school districts. Harber asked each respondent to indicate those films most requested by teachers and those considered best by audiovisual specialists. Miller (1970) analyzed the fifty most frequently requested films from four major film libraries. Schmidt (1972) polled the audiovisual specialists in 149 large school districts to determine twenty "outstanding" films.

Second, the films analyzed in this research were "content-specific" versus "audience-specific". All film content was related to health, medicine, or safety.

Harber (1953), Miller (1970), and Schmidt (1972) focused on films appropriate for school age children. Wagner (1953)
focused on films appropriate for children and adults. All researchers analyzed films with broad content.

Third, this is the first instructional film research to utilize the Observational System for Instructional Analysis in an attempt to describe instructional behaviors and instructional patterns in film design.

Fourth, this research related principles and theory from other disciplines such as social psychology, propaganda, and advertising to instructional film. With the exception of Wagner (1953) who used propaganda and advertising principles, other contemporary researchers drew primarily upon empirical data from film research.

The investigator has analyzed the conclusions of the film design researchers (Wagner, 1953; Harber, 1953; Miller, 1970; Schmidt, 1972) and identified where two or more researchers have findings on a similar variable. These are summarized below for descriptive purposes only.

Variables where findings were compatible are:

1. Elements of film were geared to the audience.

Harber (1953 concluded, "Camera techniques, vocabulary, and pictorial levels of the films were geared closely to the learning levels of their intended audiences". Wagner (1953) concluded, "The effect of the well-designed educational film will be proportional to the degree to which it is based on the common interests and needs of the audience for which it is intended" (p. 174).
2. Film commentary and visuals were simplified. Wagner (1953) concluded, "The structure of the film should be simple enough to be understood by its intended audience. It should not contain too many different ideas, nor move too fast" (p. 174). Schmidt (1972) found that the majority of the 20 films simplified commentaries and simplified the message, as much as possible. Visual images were also simplified (p. 332).

3. Film vocabulary level was kept in mind while preparing the narration. Wagner (1953) concluded, "The vocabulary level of the audience should be kept clearly in mind in preparing film narration, but it must be recognized that what is said is seldom as important as what is shown on the screen" (p. 174). Wagner (1953) concluded, "The rate at which the commentary is delivered should be between 100 and 130 words per minute" (p. 174). Schmidt (1972) found the majority of the 20 films had an average narration rate of 140 or fewer words per minute, and did not use narration that talked down or lectured to the audience (p. 332).
4. Films may well include introductions. Wagner (1953) concluded, "The film may well include an introduction which clearly and succinctly poses the problem, orients the audience, and establishes 'set', or a condition of readiness for the presentation" (p. 174). Schmidt (1972) found that the majority of the 20 films had an introduction, and used introductions to alert the audience as to what to expect and thereby to direct attention to relevant features" (p. 333).

5. The relevant use of attention-directing devices may be useful. Miller (1970) found a more frequent use of attention-directing devices than other variables. Schmidt (1972) found that the majority of the 20 films used attention-directing devices (e.g., animation techniques, color, slow or fast motion, etc.) to call attention to relevant parts of a visual which may otherwise have been overlooked (p. 332).

Research findings were found to be incompatible on three variables: music, repetition and identification elements. Harber (1953) concluded that music should have some relation to the content of a film, rather than being used only as an emotional stimulus.
Schmidt (1972) found that the majority of the 20 films used music with films dealing with the affective domain to help establish the mood and the pace. Music was not used to add informational content to the films. Title and introductory music appeared to make an aesthetic contribution to the films. This related literature and theory is consistent with Schmidt's findings. Wagner (1953) concluded, "Key ideas may be repeated two to four times for emphasis and reinforcement, but the repetitions should be varied and aesthetically satisfying as well. The summary is also useful as a form of repetition" (p. 173). Schmidt found that contrary to operational generalizations, the majority of the 20 films did not use repetition (p. 333). Certainly this literature and theory is overwhelmingly consistent with Wagner's conclusion.

Wagner (1953) concluded, "It should be recognized that the motion picture experience is an active, not a passive one, and that audience involvement in any type of film is a matter of degree. The elements of identification, familiarity, anticipation, participation, and dramatic structure will be built into the film to the degree necessary to bring about that changed behavior and sharing in common which marks successful communication and effective learning (p. 174). Contrary to operational generalizations, Schmidt (1972) found that the majority of 20 films did not use audience participation or feedback techniques (p. 333). Wagner's conclusion is highly compatible with this related literature and theory.
CHAPTER III
DESIGN AND METHODOLOGY

Purposes of the Research

The first purpose of this exploratory study was to analyze and describe the instructional behaviors, patterns, and production elements of health-related 16 mm instructional films submitted for judging in The Columbus International Film Festival\(^1\). Data were analyzed in order to describe the nature of Film Festival Chris Statuette Award winners ("outstanding films") and films receiving the lowest scores in the same judging each year during the period 1974-1977. Hereafter, these two samples are referred to as "award winners" and "nonaward winners".

A second purpose of the study was to describe more specifically the elements of design that facilitate affective objectives in 16 mm instructional films. Since there is a paucity of production guidelines for the designer of instructional films with

\(^1\)The History and Purpose of the Columbus (Ohio) International Film Festival appears in Appendix C; the basis for judging—Appendix D.
affective objectives, theory, principles, and empirical data from other disciplines have been identified and will be employed in the film analysis. These data include the work of McGuire (1969), a social psychologist, who has synthesized research results on persuasive messages and mass communication; Gagne and Bandura, learning theorists, who have researched ways in which attitudes are learned; Lippman, Doob, George, Lazarsfeld, Childs and Fried all of whom have studied propaganda techniques extensively and extrapolated a number of propaganda principles; and Boorstin, Krugman and Doob who have identified significant advertising strategies. This broad view of the literature was used to identify variables that influence attitudes and may be employed in the design of films.

The third purpose of the study was to test the viability of the Observational System for Instructional Analysis, hereafter referred to as "OSIA IV", as a methodology for film analysis (Duncan and Hough, with Belland, 1979). The system was originally conceived as a deductive model by Hough in 1967 as a modification of the 1960 Flanders System for Instructional Analysis. OSIA IV has undergone four major revisions to its current deductive/inductive option. In 1976, Belland hypothesized its usefulness for the instructional analysis of media. Hansra (1978) demonstrated the potential of OSIA IV for the analysis of televised instruction. OSIA IV has been utilized consistently in numerous different instructional settings. This study is the first to use the OSIA IV methodology in instructional film analysis and the second to apply
OSIA IV to research on media. Recent research at The Ohio State University by Ebro (1978) and Sevigny (1977) attest to OSIA IV's capacity for elaborate subscriptions.

Statement of the Problem

This study identifies the descriptive differences between Columbus Film Festival Chris Award Winners and Nonaward winners in the Health, Medicine, and Safety category during 1974-1977, in terms of the following dimensions:

a. instructional behaviors
b. instructional patterns
c. film design elements
d. persuasive message strategies

Research Questions to be Answered

Using OSIA IV what are the descriptive differences between award winners and nonaward winners:

1. in instructional behaviors?
   1a. in the instructional behavior, initiation of facts?
2. in instructional patterns using the OSIA IV matrix strategy context analysis and standard variable analysis?
3. in design elements?
   3a. in third person narration "voice-overs" in the soundtracks?
   3b. in visual dominance versus audio dominance?
   3c. in film designs?
   3d. in cognitive, affective and general use of music?
3e. in color as a cognitive discrimination cue and affective cue?
3f. in pauses?
3g. in audience involvement techniques?
3h. in introductions and summaries?
3i. in attention-directing devices such as sound effects, graphics and optical effects?
4. in persuasive communication techniques between award winners and nonaward winners?
4a. in ethos, pathos, logos, and threat appeals?
4b. in explicit conclusions.

Sample

The Columbus International Film Festival was selected as the "actual" sample for the study because it is one of the oldest and well established festivals of its kind, is one of the few festivals to categorize films according to content, and was readily accessible to the investigator.

Although the names of the judges were withheld, they are persons who have experience in health care; educational film production and usage; or both. The Columbus International Film Festival maintains a vitae file on all judges documenting their credibility. Each is considered by film festival judging standards to be well qualified. In actuality, the audience for the films was the judges of the Film Festival. This study was an analysis to explain the judge's rating based on the variables identified in the research questions.
Two different samples of 16 mm instructional films in the Health, Medicine, and Safety Category in the Columbus International Film Festival during 1974-1977 were solicited from the film producers and transferred to videotape with the producer's permission. One sample included 12 films winning the highest award, the Chris Statuette. The other sample included 22 films receiving the lowest scores given in judging. Once all the sample units were received an independent simple random sample of 8 films was drawn from each subgroup.

Scores given to films in the Health, Medicine, and Safety category during 1974-1977 are listed in Table 1. In order to analyze a dichotomous sample, films receiving a rating of 7 (Chris Award Winners) and films receiving a rating of 1, 2, or 3 (nonaward winners) were selected. Samples from the extremes of the scoring continuum increased the degree of forced representativeness.

The film producers or distributors who had films in the desired sample were petitioned for their cooperation in the study (Appendix E). The titles of the specific films used in the study are not identified in order to protect the rights and wishes of the producers and to preserve the confidentiality of the Chris Festival records. However, a brief general description of each film appears in Appendix F. The investigator will share specific information directly with any researcher who desires to replicate the study. The producers and distributors who participated in the study are listed in Appendix G.
<table>
<thead>
<tr>
<th>YEAR</th>
<th>(1)⁷</th>
<th>(2)⁷</th>
<th>(3)⁷</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>(7)⁸</th>
</tr>
</thead>
<tbody>
<tr>
<td>1974</td>
<td>1</td>
<td>5</td>
<td>4</td>
<td>6</td>
<td>8</td>
<td>11</td>
<td>3</td>
</tr>
<tr>
<td>1975</td>
<td>-</td>
<td>-</td>
<td>5</td>
<td>14</td>
<td>12</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>1976</td>
<td>-</td>
<td>-</td>
<td>1</td>
<td>8</td>
<td>6</td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>1977</td>
<td>-</td>
<td>-</td>
<td>6</td>
<td>10</td>
<td>12</td>
<td>8</td>
<td>4</td>
</tr>
<tr>
<td>TOTAL</td>
<td>1</td>
<td>5</td>
<td>16</td>
<td>38</td>
<td>38</td>
<td>34</td>
<td>12</td>
</tr>
</tbody>
</table>

⁷Scores of 1, 2, and 3 comprised the category "nonaward winners"; Total = 22

⁸A score of 7 comprised the category "award winners"; Total = 12
Upon agreement to participate, each was asked to forward a signed permission form (Appendix H) and one copy of the 16 mm film to The Ohio State University, College of Medicine Audiovisual Television Center for transfer to videotape.

Ten of twelve award winners agreed to participate and fifteen of twenty-two nonaward winners. Six nonaward winners distributors could not be determined. The producer of one nonaward winner did not respond. Two award winners refused to participate, one giving the reason of copyright problems and the other not citing a reason.

Two follow-up letters were sent to non-responders. The first follow-up letter yielded four additional participants. The second follow-up letter did not yield any additional response.

Table 2 summarizes the participants by year of entry into the film festival.

The investigator selected a 5-year (1973-1977) sample for the following reasons:

1. Since 5 years if about the average life an instructional film content would be current and codable.

2. A 5-year sample would have a greater likelihood of being available for analysis in comparison to an older group of films that may be out of distribution.

3. The scoring criteria have not changed in the past five years which facilitates consistency in judgments.
<table>
<thead>
<tr>
<th>Year</th>
<th>Non-Awards</th>
<th>Awards</th>
<th>Award Refusals</th>
<th>Nonawards Unable To Locate</th>
<th>Nonawards No Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1974</td>
<td>7</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>1975</td>
<td>3</td>
<td>3</td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>1976</td>
<td>0</td>
<td>2</td>
<td></td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>1977</td>
<td>5</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>15</td>
<td>10</td>
<td>2</td>
<td>6</td>
<td>1</td>
</tr>
</tbody>
</table>

*One producer was represented by two award winners and one nonaward winner. One producer was represented by two award winners; and another by two nonaward winners. All other producers were represented by only one film each.
Unfortunately only a 4-year sample was available since the festival data cards were retained only from 1974-1977.

The Health, Medicine, and Safety Category was selected since that is the investigator's area of professional specialty.

For purposes of this study, the sample size was limited to 16 films. OSIA IV requires coding 12 behaviors per minute. A 30-minute film would result in 360 coded behaviors or 5,760 behaviors for 16 films. In light of the large volume of data for analysis, the investigator limited the scope of the study as indicated.

Data and Instrumentation

The investigator collected data using OSIA IV (Appendix I) which consists of 13 observable instructional behaviors: 10 first level subscripts, and 20 second level subscripts. OSIA IV is a data collection and processing system in which encoded data about instructional events is collected under the controlled focus of the observer (encoder).

OSIA IV preserves the temporal sequencing of instructional events as well as displaying the encoded data in a computer matrix for observation of behavioral patterns.

The investigator employed OSIA IV under the guidance and direction of two of its three developers, Hough and Belland.

A major attraction of OSIA IV is that it can record eight levels of instructional foci simultaneously. The eight levels of
instructional events are represented in Figure 1 (reproduced with permission of the authors).

1. In the first level, OSIA provides for multiple points of view in the observation process. One can now look at instruction from the perspective of the teacher, or the student, or any other focus defined by the investigator. A focus on the teacher, for example, follows the teacher and only codes another focus when that teacher is interacting with that defined focus source.

2. The second level of the instructional event is the instructional setting; the entire class, a small group, tutorial, or independent or another setting. In this way the investigator can reconstruct the nature of the instructional event or analyze a specific instructional setting.

Levels one and two are encoded on the first entry, and every time there is a change thereafter in either focus or the instructional setting.

3. The third level of events is the source of the instructional behavior. The traditional sources are the teacher and the student. However, OSIA can be modified to accommodate mediated instruction as well as other sources.

4. The fourth level of the instructional event includes the coding of instructional functions or behaviors which are grouped as: substantive, managerial, appraisal and other.
1. What is the focus of observation
   - the teacher
   - a student
   - the instructional setting
   - other

2. What is the instructional setting of the observation
   - a class setting
   - a group setting
   - a tutorial setting
   - an independent setting
   - other

3. What is the source of instructional events
   - a teacher
   - a student
   - other

4. What are the instructional functions
   - Substantive
   - Managerial
   - Appraisal
   - Other
   - Categories 1, 2
   - Categories 3, 4, 5, 6, 7
   - Categories 8, 9, 10, 11
   - Categories 13, x

5. What sub-categories of instructional functions
   - Substantive
     - Explicate
     - Arrange
   - Managerial
     - Structure
     - Admonish
   - Appraisal
     - Express
     - Accentuate

6. What communication modes
   - Spoken
   - Unspoken
   - Mediated

7. What communication strategy
   - Direct
   - Expository
   - Interactive
   - Reciprocal
   - Independent
   - Private

8. What specific subscripted events
   - Up to 20 subscripts for each of the basic categories

Figure 1
Eight Levels of Instructional Events Coded by O.S.I.A.
5. The fifth level includes the instructional subfunctions, which more clearly define and describe the way in which each instructional category is performed.

6. The sixth level of instructional events is the mode of communication: spoken, unspoken, or mediated.

7. The seventh level is the communication strategy, whether it be direct (expository), interactive (reciprocal) or independent (private).

8. The eighth level of instructional events is the specific subscripts desired by the investigator. The system will handle up to twenty subscript classifications for each of the basic categories. The subscript feature facilitates qualitative research by subdividing general categories into qualitative dimensions.

The OSIA IV system was adapted to accommodate the variables in the research questions. The focus of instruction in the OSIA IV is either (a) the teacher, (b) student, (c) instructional setting, or (d) other. The focus was revised to represent the film opening, body and closing (Table 3). The same symbols were used with different meanings.

Table 4 lists the revision in the OSIA IV instructional setting. Again, different meanings are assigned to the symbols.

Table 5 lists the revisions in the OSIA IV sources of instructional events.
### TABLE 3

**OSIA IV**

**FOCUS OF OBSERVATION**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>OSIA IV</th>
<th>Research Revision</th>
</tr>
</thead>
<tbody>
<tr>
<td>FT</td>
<td>teacher</td>
<td>film body</td>
</tr>
<tr>
<td>FI</td>
<td>instructional setting</td>
<td>film opening/closing</td>
</tr>
<tr>
<td>FS</td>
<td>student</td>
<td>not used</td>
</tr>
<tr>
<td>FG</td>
<td>other</td>
<td>not used</td>
</tr>
</tbody>
</table>

### TABLE 4

**OSIA IV**

**INSTRUCTIONAL SETTING**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>OSIA IV</th>
<th>Research Revision</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>class setting</td>
<td>objective camera</td>
</tr>
<tr>
<td>G</td>
<td>group setting</td>
<td>subjective camera</td>
</tr>
<tr>
<td>T</td>
<td>tutorial setting</td>
<td>not used</td>
</tr>
<tr>
<td>I</td>
<td>independent setting</td>
<td>not used</td>
</tr>
<tr>
<td>Q</td>
<td>other</td>
<td>not used</td>
</tr>
</tbody>
</table>
The OSIA IV system categories were used with three exceptions. The sources of the instructional events were redefined as presented in Table 5; the managerial behaviors were redefined as substantive unison behaviors by more than one person; and the instructionally non-functional category was redefined to include changes in scenes, major, and minor events. Table 6 presents the original OSIA IV system categories; the redefinitions in the study are indicated in parentheses.

The OSIA IV level seven communication strategies were employed without revision.

For the purposes of this research, level five (subcategories of instructional functions) and level six (communication modes) were redefined as subfunction categories for the level eight subscripted events.

The OSIA IV system was developed with the option of subfunctions and subscripts. Based on the literature review and research questions, The Collart Subfunction and Subscript Film Analysis Tool was developed (Table 7).

### Table 5
**OSIA IV Sources of Instructional Events**

<table>
<thead>
<tr>
<th>Symbol</th>
<th>OSIA IV</th>
<th>Research Revision</th>
</tr>
</thead>
<tbody>
<tr>
<td>T</td>
<td>teacher</td>
<td>central character</td>
</tr>
<tr>
<td>S</td>
<td>student</td>
<td>secondary character</td>
</tr>
<tr>
<td>Q</td>
<td>other</td>
<td>others</td>
</tr>
</tbody>
</table>

The OSIA IV level seven communication strategies were employed without revision.

For the purposes of this research, level five (subcategories of instructional functions) and level six (communication modes) were redefined as subfunction categories for the level eight subscripted events.
## TABLE 6

CATEGORIES OF THE OBSERVATIONAL SYSTEM FOR INSTRUCTIONAL ANALYSIS

<table>
<thead>
<tr>
<th>Originator of Behavior</th>
<th>Category of Classification</th>
<th>Class of Behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Teacher</strong></td>
<td><strong>Student</strong></td>
<td><strong>Other</strong></td>
</tr>
<tr>
<td>(central character)</td>
<td>(second character)</td>
<td>Substantive</td>
</tr>
<tr>
<td>T1</td>
<td>S1</td>
<td>Q1</td>
</tr>
<tr>
<td>T2</td>
<td>S2</td>
<td>Q2</td>
</tr>
<tr>
<td>T3</td>
<td>S3</td>
<td>Q3</td>
</tr>
<tr>
<td>T4</td>
<td>S4</td>
<td>Q4</td>
</tr>
<tr>
<td>T5</td>
<td>S5</td>
<td>Q5</td>
</tr>
<tr>
<td>T6</td>
<td>S6</td>
<td>Q6</td>
</tr>
<tr>
<td>T7</td>
<td>S7</td>
<td>Q7</td>
</tr>
<tr>
<td>T01</td>
<td>S01</td>
<td>Q01</td>
</tr>
<tr>
<td>T02</td>
<td>S02</td>
<td>Q02</td>
</tr>
<tr>
<td>T03</td>
<td>S03</td>
<td>Q03</td>
</tr>
<tr>
<td>T04</td>
<td>S04</td>
<td>Q04</td>
</tr>
<tr>
<td>T05</td>
<td>S05</td>
<td>Q05</td>
</tr>
<tr>
<td>T06</td>
<td>S06</td>
<td>Q06</td>
</tr>
<tr>
<td>T07</td>
<td>S07</td>
<td>Q07</td>
</tr>
<tr>
<td>T8</td>
<td>S8</td>
<td>Q8</td>
</tr>
<tr>
<td>T9</td>
<td>S9</td>
<td>Q9</td>
</tr>
<tr>
<td>T10</td>
<td>S10</td>
<td>Q10</td>
</tr>
<tr>
<td>T11</td>
<td>S11</td>
<td>Q11</td>
</tr>
<tr>
<td>T12</td>
<td>S12</td>
<td>Q12</td>
</tr>
<tr>
<td>T13</td>
<td>S13</td>
<td>Q13</td>
</tr>
<tr>
<td>or x</td>
<td>or x</td>
<td>or x</td>
</tr>
<tr>
<td>(x$s-scene change)</td>
<td>(x$p-minor event)</td>
<td>(x$m-major event)</td>
</tr>
<tr>
<td>z serial</td>
<td>y interact</td>
<td>separation designation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>separation designation</td>
</tr>
</tbody>
</table>

\(^1\) Hough, et al, 1975, paper no. 4, p. 48

\(^2\) Redefinitions for this study appear in parentheses
<table>
<thead>
<tr>
<th>Subfunction</th>
<th>Subscript</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td><strong>AUDIO DECISIONS:</strong></td>
</tr>
<tr>
<td>AM</td>
<td>A</td>
<td>Soundtrack</td>
</tr>
<tr>
<td>AM</td>
<td>B</td>
<td>Narration</td>
</tr>
<tr>
<td>AM</td>
<td>C</td>
<td>Soliloquy</td>
</tr>
<tr>
<td>AM</td>
<td>D</td>
<td>Dialogue</td>
</tr>
<tr>
<td>AM</td>
<td>R</td>
<td>Silence</td>
</tr>
<tr>
<td>AM</td>
<td>S</td>
<td>Voice off-screen talking to person on-screen</td>
</tr>
<tr>
<td>AM</td>
<td>T</td>
<td>Voice off-screen talking to person off-screen</td>
</tr>
<tr>
<td>AM</td>
<td>E</td>
<td>Voice on-screen talking to person off-screen</td>
</tr>
<tr>
<td>AM</td>
<td>F</td>
<td>Music</td>
</tr>
<tr>
<td>AM</td>
<td>G</td>
<td>Cognitive</td>
</tr>
<tr>
<td>AM</td>
<td>H</td>
<td>Affective</td>
</tr>
<tr>
<td>AM</td>
<td>I</td>
<td>General</td>
</tr>
<tr>
<td>AM</td>
<td>J</td>
<td>Solo instrumentation</td>
</tr>
<tr>
<td>AM</td>
<td>K</td>
<td>Small ensemble</td>
</tr>
<tr>
<td>AM</td>
<td>L</td>
<td>Full orchestra</td>
</tr>
<tr>
<td>AM</td>
<td>M</td>
<td>Lyrics</td>
</tr>
<tr>
<td>AM</td>
<td>N</td>
<td>Words coded by OSIA IV</td>
</tr>
<tr>
<td>AM</td>
<td>O</td>
<td>Sound Effects</td>
</tr>
<tr>
<td>AM</td>
<td>P</td>
<td>Real cognitive</td>
</tr>
<tr>
<td>AM</td>
<td>Q</td>
<td>Contrived cognitive</td>
</tr>
<tr>
<td>AM</td>
<td>A</td>
<td>Real affective</td>
</tr>
<tr>
<td>AM</td>
<td>B</td>
<td>Contrived affective</td>
</tr>
<tr>
<td>AM</td>
<td>C</td>
<td>General background</td>
</tr>
<tr>
<td>AM</td>
<td>D</td>
<td>ATTENTION DIRECTING</td>
</tr>
<tr>
<td></td>
<td></td>
<td>VISUAL DECISIONS:</td>
</tr>
<tr>
<td>A</td>
<td>A</td>
<td>Graphics</td>
</tr>
<tr>
<td>A</td>
<td>B</td>
<td>Symbols</td>
</tr>
<tr>
<td>A</td>
<td>C</td>
<td>Graphs or charts</td>
</tr>
<tr>
<td>A</td>
<td>D</td>
<td>numbers or letters</td>
</tr>
<tr>
<td>A</td>
<td>E</td>
<td>Arrows or direction indicators</td>
</tr>
<tr>
<td>A</td>
<td>F</td>
<td>Cartoons or animation</td>
</tr>
<tr>
<td>A</td>
<td>G</td>
<td>Realistic illustration or drawing</td>
</tr>
<tr>
<td>A</td>
<td>H</td>
<td>Still graphic</td>
</tr>
<tr>
<td>A</td>
<td>I</td>
<td>Animated graphic</td>
</tr>
<tr>
<td>Subfunction</td>
<td>Subscript</td>
<td>Meaning</td>
</tr>
<tr>
<td>-------------</td>
<td>-----------</td>
<td>---------</td>
</tr>
</tbody>
</table>
| A           | I         | **Optical Effects**  
Dissolve |
| A           | J         | Freeze frame |
| A           | K         | Still image |
| A           | L         | Fade |
| A           | M         | Double exposure |
| A           | N         | Superimposition |
| A           | O         | Slow motion |
| A           | P         | Fast motion |
| A           | Q         | **Attention Directing**  
Real Moving Image  
Color |
| A           | R         | Cognitive |
| A           | S         | Affective |
| A           | T         | General |
| M           | A         | **Title**  
Beginning |
| M           | B         | Body |
| M           | C         | End |
| M           | D         | **Credits**  
Beginning |
| M           | E         | Body |
| M           | F         | End |
| M           | G         | Disclaimer |
| AUM         | A         | Audio |
| AUM         | B         | Visual |
| AUM         | C         | Audiovisual |
| U           | A         | Ethos |
| U           | B         | Logos |
| U           | C         | Pathos |
| U           | D         | Threat appeal |
| U           | E         | Explicit conclusion |
| U           | F         | Introduction |
| U           | G         | Summary |
| U           | H         | Pause |
| U           | I         | Other |
TABLE 7 (con't)

<table>
<thead>
<tr>
<th>Subfunction</th>
<th>Subscript</th>
<th>Meaning&lt;sup&gt;b&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>UA</td>
<td>A-I</td>
<td>COMMUNICATION DIRECTION: COVERT</td>
</tr>
<tr>
<td></td>
<td>as above</td>
<td></td>
</tr>
<tr>
<td>UM</td>
<td>A-I</td>
<td>COMMUNICATION NOT DIRECTED TO VIEWER</td>
</tr>
<tr>
<td></td>
<td>as above</td>
<td></td>
</tr>
</tbody>
</table>

<sup>a</sup>The concept of Subfunctions and Subscripts was developed by Duncan, Hough and Belland as an option to OSIA IV; the investigator assigned the meanings in terms of film analysis.

<sup>b</sup>Definitions appear in Appendix K.
The OSIA IV system, as adapted, appears in Appendix J in the form in which it was used for coding.

A fixed interval of five seconds was used to code instructional behaviors. Using a stopwatch, the investigator recorded whatever instructional behavior was present in the film at the given five second time periods. In addition, the investigator coded every subfunction and subscript combination that represented variables that occurred in any part or whole of the 5-second time interval. Therefore, a frequency of 1 represents 5 seconds, but the actual time of the event could have varied from 1 second to 5 seconds. The time frequency is therefore an approximation. This procedure is justified since the investigator is not interested in the nuances of interactive patterns. It was expected that the patterns were persistent.

The investigator focused on the film character who was talking on the screen; if no characters were present the focus was coded "other".

Films were transferred to videotape to insure rapid return to the producers and to enhance coding. A Sony Video-recorder AV 5000A was used. Any color alteration in film characteristics from the transfer were consistent in the two samples. However, on first preview, data on color was collected from the 16 mm films directly.
The slight image distortion, color shifts and 5% image loss in the videotape did not alter the coding decisions in a way that the investigator noticed or could describe.

**Analysis Procedure**

Once a film was transferred to videotape, the film was reviewed by the investigator in its original 16 mm format on a 4' x 4' screen in a dark room. Comments regarding color and potential image distortion in the videotape small screen size were noted. The film length was timed. The 16 mm film was then returned to the producer or distributor with a follow-up letter (Appendix L).

All videotapes were analyzed in a randomly selected order. Prior to coding the videotape, the written comments from the 16 mm viewing were studied.

The videotape was played back in existing light on a Sony Trinitron Monitor and coded using the revised OSIA IV system. The videotape was backed up for multiple viewings of instructional events, as necessary. The stopwatch was a necessity to maintain the fixed 5-second intervals with accuracy.

Subfunction and subscript constructs were identified and entered in a notebook along with the videotape counter number.

Additional comments and observations were noted following the coding.
The OSIA IV coding was repeated on the films coded fourth, eighth, twelfth, and sixteenth. The first and second coding differences for the four films were reviewed with one of the OSIA IV developers (Appendix M). Select representative constructs were reviewed and verified. Coding problem constructs were reviewed, discussed and resolved. The differences were so small and diverse that it was the opinion of the colleague reviewer that they were not sufficient to merit calculating a Cohen Coefficient for interobserver reliability. Coding from videotape permitted multiple observations of film segments which facilitated this high interobserver reliability.

Analysis of Data

Data was entered into OSIA computer program developed by Bill Siders (1973).

Since each event (5-second time period was multidimensional) a string of instructional behavior/subfunctions and subscripts was coded and punched onto a data card, e.g.,

T4AM$CT4AM$ET4AM$IT4A$ST4AUM$CT4UM$G.

A problem in the OSIA computer analysis program was encountered when it counted all the instructional behaviors on a single data card as separate entries. In the example given, six T4's were counted rather than one. The multiple subscripts falsely inflated the values for the instructional behavior variable so that the results were not interpretable. The variable loading was an
index of the complexity of the film, but could not be assumed to
be randomly and equally distributed. Therefore, a SNOBOL com­
puter program as conceived by Griswul (1971) was written to re­
punch the data cards to recognize only the first instructional
behavior and its frequency.

The new and original data cards were then entered into
the Siders computer program and grouped in the following nine
ways:

1. Award winners together as one total film.
2. Nonaward winners together as one total film.
3. Award winners' openings together as one film
opening.
4. Award winners' bodies together as one film body.
5. Award winners' closings together as one film closing.
6. Nonaward winners' openings together as one film
opening.
7. Nonaward winners' bodies together as one film body.
8. Nonaward winners' closings together as one film
closing.
9. Each award winner and each nonaward winner inde­
dependently as a total film.

Computer display options included: (a) matrices for
instructional behaviors and patterns, (b) standard variable analy­
ses for climate, interaction, appraisal, and general variables,
and (c) strategy content analyses for the direct (expository), interactive (reciprocal), and independent (private strategies in combination with -

1. Actors (central character(s), secondary character(s) and other).
2. Functions (substantive, managerial, appraisal and non-functional).
3. Camera angles (subjective and objective).
4. Observation focus (film opening, body, or closing)

and (d) subfunction and subscript analyses.

Appendix N illustrates the OSIA IV computer display summaries "Strategy Content Analysis" (Table 94) and "Standard Variable Analysis" (Table 95). The OSIA IV expanded computer matrix could not be reproduced for the appendix with proper definition. However, this matrix is presented and discussed by Hough and Duncan (1970). These data are reported in terms of percentages of the total frequencies.

The computer displays are descriptive in nature and nonjudgmental. The interpretations and judgment are made by the investigator.

The subfunction and subscript analyses identified 1159 potential combinations of instructional behaviors and other variables. A special SNOBOL computer program was developed to manipulate this data since the number of combinations was
prohibitive for a frequency count by hand and since the investigator was interested in the subfunction and subscript variables independent of the instructional behaviors. The SNOBOL program listed frequencies for seventy-one subfunction and subscript combinations from a potential of seventy-seven (Appendix 0, Table 96). Since the films varied in length, the data were then normalized to standardized for length (Appendix 0, Table 97). Each film was forced to be 10,000 units long based on the total variable frequency count for that film, i.e., cell frequency count for a specific variable x 10,000 divided by total frequency count for the given film. The data are reported in terms of percents of the normalized units.

Other data in the study are reported in terms of descriptive statistical measurements for interval data: central tendency (mean) and variability or dispersion (relative frequency and percentage).

Measurements for statistical significance were inappropriate since the central research problem was to identify the presence or absence of specific variables. Sophisticated statistical tests for pattern analyses were neither relevant nor feasible for such descriptive study of differences with a small sample.

**Design**

The design employed in this research is Descriptive Survey Research with a documentary analysis as described by Van Dalen (1973, p. 201).
The study was conducted in three phases as follows:

**Phase I** - The films were solicited and placed in their respective sample groups as discussed.

The OSIA IV Collart Subfunction and Film Analysis Tool was developed and field-tested to meet the specific needs of the investigation.

Application of construct validity was achieved by selecting one example of each construct and seeking verification with an expert colleague in the field. Every attempt was made to maintain consistency in coding.

Data collection comprised **Phase II**. The films were viewed in a randomly selected order and coded using OSIA IV. The fourth, eighth, twelfth, and sixteenth films were coded twice for an interobserver reliability check. Validity of construct application was also checked at those same times with an expert colleague in the field.

A description log was written during and after each film observation. Rationales to support the observations were noted along with pertinent examples.

Data analysis comprised **Phase III**.

The end sought in the study was descriptive, therefore internal validity was not a major concern.

However, pertinent variables from the related literature and theory were built into the design and the variables (content, production years and Columbus International Film Festival) were
held constant to control extraneous variance.

OSIA IV was established as a reliable instrument; the OSIA IV subscript reliability and validity were established to minimize error.

**Timetable**

Phase I was completed Spring 1978; Phase II - Summer 1978; Phase III - Fall 1978. The final research report was prepared Winter-Spring 1979.

**Limitations**

Specific threats to internal validity are not apparent in this exploratory descriptive study. Internal validity could result from other plausible antecedents. Certainly the research was not inclusive of every possible variable influencing the design of research of 16 mm instructional film design. The complexity of instructional film design research is confounded by the multiplicity of variables and potential for infinite sequences, configurations, and interactions.

Certainly a relatively small sample size is a limiting factor.

Descriptive research is usually not concerned with generalizing to a population. However, two sources of external invalidity have been identified: incomplete frame and selection error.
It is possible that the actual population from which the sample was drawn is not the same as the larger population of instructional films (incomplete frame). Films entered in festival competition could differ from other instructional films. Films on health, medicine, and safety may also differ from films on other topics. Additionally, it has been documented that different criteria are used in different film festivals to determine award winners.

It should also be noted that "nonaward" winners in the Columbus Film Festival should not be considered "poor" but only as comparatively less acceptable than others in the opinion of the judges of a single film festival during a specific period of time.

The sample could also be biased in that film production between 1973-1977 could have been "peak" year(s) or "off" year(s). Since the number of awards is limited, some outstanding films could have been neglected in the analysis or some less than outstanding films may have been included in the analysis and received awards when otherwise they would not have.

Selection error occurs in that some units in the actual population would have a greater chance of appearing in the sample. These films are ones entered by the same producer and may have a greater likelihood of being award winners in other festivals as well.
Selection error could also occur in that the jurors from year-to-year could interpret the judging criteria somewhat differently, some being more strict, others more lenient. According to Columbus Film Festival officers, judgments have become very demanding over the years. In the earlier years of the Columbus International Film Festival all films submitted received some type of recognition. Since 1977, only one Chris statuette (highest award) is given in a sub-category and bronze plaques are given to the runners-up.

Also, all judges are naturally influenced by previous films they have rated. The internal "affective" measure of comparing films to each other could bias the scoring. Films are obviously considered better or worse than those viewed in a comparative situation such as a film festival.

The two producers who refused to participate in the study also contribute to possible sample bias. Both were award winners.

In an attempt to enhance external validity, the investigator collected the following data:

2. Number of times each producer was represented in a sample for this study.
3. Number of awards received in other festivals by Chris winners represented in this study.
Assumptions

This study assumes that the judges for the Columbus International Film Festival were "expert witnesses" in their field who were competent, motivated, and consistent in their application of the scoring criteria.

Summary

OSIA IV was employed to code and analyze the instructional patterns and instructional behaviors of eight award winners and eight nonaward winners from the Columbus International Film Festival between 1974-1977. The Collart Subfunction and Subscript Film Analysis Tool was developed based on the literature review in order to describe the occurrence of the variables in the research questions.

No judgments were made as to the appropriateness or effectiveness of a given variable; its presence was simply coded.

No implications were made regarding audience effects.

The data were computer-analyzed to generate instructional patterns, instructional behaviors and subfunction and subscript combinations.

The end result is a descriptive film iconography based on the OSIA IV instrumentation.
CHAPTER IV
PRESENTATION AND ANALYSIS OF THE DATA

INTRODUCTION

This chapter describes characteristics of the samples, and presents the findings according to the research questions listed in Chapter I.

The findings are presented using descriptive statistics. It is not within the scope and design of this research to isolate a few specific variables for statistical analyses. The intent is to generate hypotheses regarding specific variables for future study and statistical analyses.

In instructional research, Amidon and Hough (1967) found that behaviors in the "live" classroom were meaningful where small percentages of differences were involved. Even though the percentage differences in classroom behaviors were small, a 2:1 difference was determined to be significant. Therefore, for the purposes of this research, data generated by the OSIA IV computer program is considered to be worthy of attention if difference in the descriptive percentage ratio of 2:1 or more is present.
Data generated by the SNOBOL computer program is considered to be of sufficient value for elaboration if a difference of 20% of the normalized units or greater exists\(^1\).

A summary of the variables that have at least a 2:1 ratio difference or at least a 20% normalized unit difference between award winners and nonaward winners appears at the end of this chapter.

**FINDINGS**

**Characteristics of the Samples**

**Length:** The award winners vary in length from 11 minutes to 36 minutes with an average of 21.7 minutes. Nonaward winners are shorter in length, ranging from 10 minutes to 20 minutes and averaging 15 minutes.

**Openings and Closings:** Eight award winners and six non-award winners have openings. Award winners' openings average 105.6 seconds in length or 8% of the total film time. Nonaward winners' openings average 50.6 seconds or 5.6% of the total film time.

All award winners and nonaward winners have easily identifiable closings. Award winners' closings average 96.3 seconds or 7.4% of the total film length. Nonaward winners' closings average 54.4 seconds or 6% of the total film time.

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\(^1\)The films were normalized to standardize for length. Although frequency counts are reported to orient the reader to data quantity, the percentages of the normalized units are the meaningful statistics for interpretation.
Award winners include a greater percentage of film time in opening and closing compared to nonaward winners. However, both award winners and nonaward winners have a 1:1 ratio of opening to closing film time.

Award winners average 84.6% of time in the film bodies. Nonaward winners average 88.4% of time in the film bodies.

**Scene Changes:** Award winners average 70.6 scene changes per film while nonaward winners average 71.8 film scenes per film. However, when film lengths are considered, award winners average 3.3 scene changes per minute and nonaward winners 4.8 scene changes per minute.

**Major Events:** A change in idea, concept, or major direction was coded as a major event, e.g., central character is walking down the street and gets hit by a car. Five award winners and three nonaward winners have major events. Award winners' major events average 6.3 per film and 0.3 per minute. Nonaward winners' major events average 6 per film and 0.4 per minute.

**Minor Events:** Minor events were coded when a slight alteration in the action occurred but did not alter the major direction, e.g., a character enters or leaves a scene, but the intent of the scene did not change. Eight award winners and seven nonaward winners have minor events. Award winners average 23.3 per film and 1.1 per minute. Nonaward winners average 21.1 per film and 1.4 per minute.
Titles, credits, and disclaimers were also analyzed with no findings of consequence to be reported in this study.

FINDINGS

Research Question 1: What are the descriptive differences in instructional behaviors using OSIA IV between award winners and non-award winners?

Central Characters Instructional Behaviors - Entire Films: All award winners have an easily identifiable number of central characters ranging from 1-8 with an average of 3. Non-award winners' central characters range from 0 to a group. One nonaward winner does not have a central character. One nonaward winner has 13 central characters all of whom appear to have a political tie to the film sponsor and hence are included in the film. One nonaward winner has a group of people singing as the soundtrack for the entire film.

Frequencies for award winners' central characters behaviors range from 6-411 with a total frequency of 783.

Frequencies for nonaward winners' central characters behaviors range from 1-342 with a total frequency of 653. One nonaward winner with totally animated graphics does not have a central character.

\(^2\)The frequency for award winners' instructional behaviors is 1992 and for nonaward winners is 1477.
Table 8 lists the percentages of instructional behaviors for the central characters when award winners are grouped together and treated as one entire film and when nonaward winners are grouped together and treated as one entire film.

Award winners have a larger percentage of instructional behaviors than nonaward winners in the following categories: "senses" and "manipulates artifacts".

Nonaward winners have a larger percentage of instructional behaviors than award winners in the following categories: "initiates", "responds", "solicits clarification", "solicits" and "personal positive judgment".

Instructional behaviors not present in award winners or nonaward winners are: "thinks", "judges correctness", "acknowledges" and "judges incorrectness".

Central Characters Instructional Behaviors - Film Openings: Frequencies for award winners' central characters behaviors in film openings range from 1-23 and nonaward winners range from 1-25.

Table 9 lists the percentage of instructional behaviors for the central characters when the film openings for all award winners are grouped together as one film opening and when the film openings for all nonaward winners are grouped together as one film opening.
| Award Winners | 8% | 5% | 17% | 1% | 0% | 1% |
| Nonaward Winners | 3% | 2% | 19% | 7% | 1% | 3% |

*represents at least a 2:1 ratio in percentages between award winners and nonaward winners.
TABLE 9
PERCENTAGE OF INSTRUCTIONAL BEHAVIORS FOR CENTRAL CHARACTERS IN FILM OPENINGS

<table>
<thead>
<tr>
<th></th>
<th>*Senses</th>
<th>*Manipulates Artifacts</th>
<th>*Initiates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award Winners</td>
<td>2%</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>Nonaward Winners</td>
<td>1%</td>
<td>3%</td>
<td>22%</td>
</tr>
</tbody>
</table>

* represents at least a 2:1 ratio in percentages between award winners and nonaward winners

Award winners continue to have a larger percentage of instructional behaviors than nonaward winners in the following categories: "senses" and "manipulates artifacts". Nonaward winners have a larger percentage of "initiates" in film openings.

The number of instructional behaviors decreases dramatically when compared to the number of behaviors in the entire films.

Instructional behaviors not present in film openings of award winners or nonaward winners are: "thinks", "responds", "solicits clarification", "solicits", "judges correctness", "personal positive judgment", "acknowledges", "judges incorrectness", and "personal negative judgment".

Central Characters Instructional Behaviors – Film Bodies: Frequencies for award winners' central characters behaviors in film bodies range from 6-377 and nonaward winners range from 1-307.
Table 10 lists the percentage of instructional behaviors for the central characters when the film bodies for all award winners are grouped together as one film body and when the film bodies for all nonaward winners are grouped together as one film body.

Award winners continue to have a larger percentage of instructional behaviors than nonaward winners in the following categories: "senses" and "manipulates artifacts". Nonaward winners continue to have a larger percentage of the following behaviors: "initiates", "responds", "solicits clarification", "solicits", and "personal positive judgment".

Instructional behaviors not present in film bodies of award winners or nonaward winners are: "thinks", "judges correctness", "acknowledges", and "judges incorrectness".

Central Characters Instructional Behaviors - Film Closings: Frequencies for award winners' central characters behaviors in film closings range from 1-37 and nonaward winners range from 4-101.

Table 11 lists the percentage of instructional behaviors for the central characters when the closings for all award winners are grouped together as one film closing and when the closings for all nonaward winners are grouped together as one film closing.

Award winners have a larger percentage of instructional behaviors than nonaward winners in the following categories:
<table>
<thead>
<tr>
<th></th>
<th>*Senses</th>
<th>*Manipulates</th>
<th>Initiates</th>
<th>*Responds</th>
<th>Solicits</th>
<th>Clarification</th>
<th>*Solicits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award Winners</td>
<td>7%</td>
<td>4%</td>
<td>19%</td>
<td>1%</td>
<td>0</td>
<td></td>
<td>1%</td>
</tr>
<tr>
<td>Nonaward Winners</td>
<td>3%</td>
<td>2%</td>
<td>20%</td>
<td>8%</td>
<td>1%</td>
<td></td>
<td>3%</td>
</tr>
</tbody>
</table>

**Personal Positive Judgment**

<table>
<thead>
<tr>
<th></th>
<th>Award Winners</th>
<th>Nonaward Winners</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>1%</td>
</tr>
</tbody>
</table>

**Personal Negative Judgment**

<table>
<thead>
<tr>
<th></th>
<th>Award Winners</th>
<th>Nonaward Winners</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1%</td>
<td>1%</td>
</tr>
</tbody>
</table>

*represents at least a 2:1 ratio in percentages between award winners and nonaward winners.
TABLE 11
PERCENTAGE OF INSTRUCTIONAL BEHAVIORS FOR CENTRAL CHARACTERS IN FILM CLOSINGS

<table>
<thead>
<tr>
<th></th>
<th>*Senses</th>
<th>Initiates</th>
<th>*Responds</th>
<th>Solicits Clarification</th>
<th>*Solicits Incorrectness</th>
<th>Judges Incorrectness</th>
<th>Personal Negative Judgment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award Winners</td>
<td>18%</td>
<td>5%</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1%</td>
</tr>
<tr>
<td>Nonaward Winners</td>
<td>6%</td>
<td>8%</td>
<td>2%</td>
<td>1%</td>
<td>2%</td>
<td>1%</td>
<td>0</td>
</tr>
</tbody>
</table>

*represents at least a 2:1 ratio in percentages between award winners and nonaward winners.
"senses" and "negative judgment". Nonaward winners have a larger percentage of the following behaviors: "initiates", "responds", "solicits clarification", "solicits", and "judges incorrectness".

Instructional behaviors not present in film closings of award winners or nonaward winners include: "thinks", "manipulates artifacts", "judges correctness" and "acknowledges".

Secondary Characters Instructional Behaviors - Total Films: Frequencies for award winners secondary characters' behaviors range from 1-249 with a total frequency of 368. Frequencies for nonaward winners' secondary characters behaviors range from 1-150 with a total frequency of 511. Two award winners and three nonaward winners do not have secondary characters.

Table 12 lists the percentages of instructional behaviors for the secondary characters when award winners are grouped together and treated as one entire film and when nonaward winners are grouped together and treated as one entire film.

Award winners have a larger percentage of the instructional behavior "initiates" than nonaward winners.

Nonaward winners have a larger percentage of instructional behaviors than award winners in the following categories: "manipulates artifacts", "responds", "solicits", "personal positive judgment" and "personal negative judgment". In addition, nonaward winners exhibit one behavior that was not present in award winners:
### TABLE 12
PERCENTAGE OF INSTRUCTIONAL BEHAVIORS FOR SECONDARY CHARACTERS IN ENTIRE FILMS

|                  | *Manipulates Senses | Artifacts Initiates | *Responds Clarification | *Solicits | *Represents at least a 2:1 ratio in percentages between award winners and nonaward winners. |
|------------------|---------------------|---------------------|-------------------------|-----------|
| Award Winners    | 1%                  | 1%                  | 10%                     | 1%        | 1%                                                                 |
| Nonaward Winners | 1%                  | 4%                  | 9%                      | 7%        | 1% 4%                                                               |

<table>
<thead>
<tr>
<th></th>
<th>Personal Positive Judgment</th>
<th>*Personal Negative Judgment</th>
<th>Unison Initiation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award Winners</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Nonaward Winners</td>
<td>1%</td>
<td>2%</td>
<td>1%</td>
</tr>
</tbody>
</table>

*represents at least a 2:1 ratio in percentages between award winners and nonaward winners.
unison "initiation" and by a group of secondary characters.

Instructional behaviors not present in the entire films of award winners or nonaward winners are: "thinks", "judges correctness", "acknowledges" and "judges incorrectness".

Secondary Characters Instructional Behaviors - Film Openings: Frequencies for award winners' secondary characters behaviors in film openings range from 1-16 and nonaward winners range from 2-6.

Table 13 lists the percentage of instructional behaviors for the secondary characters when the openings of all award winners are grouped as one film opening and when the openings of all non-award winners are grouped likewise.

<table>
<thead>
<tr>
<th></th>
<th>*Senses</th>
<th>*Manipulates</th>
<th>Initiates</th>
<th>*Responds</th>
<th>Solicits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award Winners</td>
<td>0</td>
<td>0</td>
<td>7%</td>
<td>1%</td>
<td>3%</td>
</tr>
<tr>
<td>Nonaward Winners</td>
<td>2%</td>
<td>5%</td>
<td>4%</td>
<td>2%</td>
<td>2%</td>
</tr>
</tbody>
</table>

*represents at least a 2:1 ratio in percentages between award winners and nonaward winners.

Award winners have a larger percentage of instructional behaviors than nonaward winners in the following categories: "initiates" and "solicits". Nonaward winners have a larger percentage
of instructional behaviors than award winners as follows: "senses", "manipulates artifacts" and "responds".

Instructional behaviors not present in award winners or nonaward winners openings are: "thinks", "solicits clarification", "judges correctness", "personal positive judgment", "acknowledges", "judges incorrectness", "personal negative judgment" and unison behaviors.

Secondary Characters Instructional Behaviors - Film Bodies: Frequencies for award winners' secondary characters behaviors in film bodies range from 1-218 and nonaward winners range from 1-145.

Table 14 lists the percentage of instructional behaviors for the secondary characters when the bodies of all award winners are grouped as one film body and when the bodies of all nonaward winners are grouped likewise.

Award winners have a larger percentage of the instructional behavior "initiates" than nonaward winners.

Nonaward winners have a larger percentage of instructional behaviors than nonaward winners as follows: "manipulates artifacts", "responds", "solicits", "personal positive judgment", "judges incorrectness" and "personal negative judgment".

Instructional behaviors not present in award winners or non-award winners bodies are: "thinks", "acknowledges", "judges correctness" and unison behaviors.
TABLE 14
PERCENTAGE OF INSTRUCTIONAL BEHAVIORS FOR SECONDARY CHARACTERS IN FILM BODIES

<table>
<thead>
<tr>
<th></th>
<th>*Manipulates</th>
<th>Artifacts</th>
<th>Initiates</th>
<th>*Responds</th>
<th>Solicits Clarification</th>
<th>*Solicits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award Winners</td>
<td>1%</td>
<td>1%</td>
<td>11%</td>
<td>1%</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Nonaward Winners</td>
<td>1%</td>
<td>4%</td>
<td>10%</td>
<td>8%</td>
<td>1%</td>
<td>4%</td>
</tr>
</tbody>
</table>

Personal Positive Judgment  *Personal Negative Judgment  Judges Incorrectness
Award Winners  0  1%  0
Nonaward Winners  1%  2%  1%

*represents at least a 2:1 ratio in percentages between award winners and nonaward winners.
Secondary Characters Instructional Behaviors – Film

Closings: Frequencies for award winners' secondary characters behaviors in film closings ranged from 1-15 and nonaward winners ranged from 1-8.

Table 15 lists the percentage of instructional behaviors for the secondary characters when the closings of all award winners are grouped as one film closing and when the closings of all non-award winners are grouped likewise.

Award winners have a larger percentage of instructional behaviors than nonaward winners in the following categories: "initiates" and "responds".

Nonaward winners have a larger percentage of the following behaviors: "senses", "solicits", "personal negative judgment", "unison initiates" and "unison responses".

Instructional behaviors not present in award winners or nonaward winners closings are: "thinks", "manipulates artifacts", "solicits clarification", "judges correctness", "personal positive judgment", "acknowledges" and "judges incorrectness".

Other Instructional Behaviors - Total Films: If people, central and secondary characters, were not on the screen, the category "other" was coded. This includes graphics, titles, credits, or a real setting absent of people.
### TABLE 15
PERCENTAGE OF INSTRUCTIONAL BEHAVIORS FOR SECONDARY CHARACTERS IN FILM CLOSINGS

<table>
<thead>
<tr>
<th></th>
<th>Senses</th>
<th>*Initiates</th>
<th>Responds</th>
<th>*Solicits</th>
<th>Personal Negative Judgment</th>
<th>*Unison Initiates</th>
<th>*Unison Responds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award Winners</td>
<td>0</td>
<td>7%</td>
<td>1%</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Nonaward Winners</td>
<td>1%</td>
<td>1%</td>
<td>0</td>
<td>2%</td>
<td>1%</td>
<td>6%</td>
<td>2%</td>
</tr>
</tbody>
</table>

*represents at least a 2:1 ratio in percentages between award winners and nonaward winners
Frequencies for award winners' other behaviors range from 1-829 with a total frequency of 841.

Frequencies for nonaward winners' other behaviors range from 6-286 with a total frequency of 313.

Also included in the analyses of "other" is the category "instructionally nonfunctional". This totals the percentage of the coding of X which denotes scene changes, major events and minor events.

Table 16 lists the percentages of instructional behaviors for "other" when award winners are grouped together and treated as one entire film and when nonaward winners are grouped together and treated as one entire film.

<table>
<thead>
<tr>
<th></th>
<th>*Initiates</th>
<th>Solicits</th>
<th>Externally Nonfunctional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award Winners</td>
<td>35%</td>
<td>0</td>
<td>16%</td>
</tr>
<tr>
<td>Nonaward Winners</td>
<td>16%</td>
<td>1%</td>
<td>16%</td>
</tr>
</tbody>
</table>

*represents at least a 2:1 ratio difference between award winners and nonaward winners.

Award winners have higher percentages of "initiates", while nonaward winners have only percentage of "solicits".

The majority of instructional behaviors are absent.
The frequency for award winners' openings is 102 and for nonaward winners' ranges from 2-34.

The frequency for award winners' bodies is 619 and for nonaward winners ranges from 19-187.

The frequency for award winners' closings is 108 and for nonaward winners 65.

Table 17 lists the behaviors for "other" in film openings, bodies and closings.

<table>
<thead>
<tr>
<th>Film Openings</th>
<th>Initiates</th>
<th>Solicits</th>
<th>External Nonfunctional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award Winners</td>
<td>45%</td>
<td>*0</td>
<td>22%</td>
</tr>
<tr>
<td>Nonaward Winners</td>
<td>30%</td>
<td>*2%</td>
<td>33%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Film Bodies</th>
<th>Initiates</th>
<th>Solicits</th>
<th>External Nonfunctional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award Winners</td>
<td>*32%</td>
<td>0</td>
<td>16%</td>
</tr>
<tr>
<td>Nonaward Winners</td>
<td>*12%</td>
<td>1%</td>
<td>15%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Film Closings</th>
<th>Initiates</th>
<th>Solicits</th>
<th>External Nonfunctional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award Winners</td>
<td>51%</td>
<td>0</td>
<td>16%</td>
</tr>
<tr>
<td>Nonaward Winners</td>
<td>51%</td>
<td>0</td>
<td>17%</td>
</tr>
</tbody>
</table>

* represents at least a 2:1 ratio difference between award winners and nonaward winners.
Award winners have higher percentages of "initiates" in film openings and film bodies.

Nonaward winners have higher percentages of "solicits" in film openings and film bodies.

Film Time Per Actor: Table 18 lists the total percentage of film time by actors.

<table>
<thead>
<tr>
<th>Award Winners</th>
<th>Central Characters</th>
<th>*Secondary Characters</th>
<th>*Other</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>33%</td>
<td>15%</td>
<td>35%</td>
</tr>
<tr>
<td>Nonaward Winners</td>
<td>37%</td>
<td>30%</td>
<td>17%</td>
</tr>
</tbody>
</table>

Externally Nonfunctional

<table>
<thead>
<tr>
<th>Award Winners</th>
<th>16%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nonaward Winners</td>
<td>16%</td>
</tr>
</tbody>
</table>

*represents a 2:1 higher percentage difference between award winners and nonaward winners.

Nonaward winners have a higher percentage of instructional behaviors with the central characters as the source.

Nonaward winners have a higher a:1 ratio with secondary characters as the source of the instructional behaviors.

Award winners have a higher 2:1 ratio with other as the source of the instructional behaviors.

There are no 2:1 ratio differences when the data is analyzed by film openings, bodies and closings.
Interaction: The frequency for award winners' interaction designator is 80 and for nonaward winners 92.

Research Question 1a: What are the descriptive differences in the instructional behavior, initiation of facts, using OSIA IV between award winners and nonaward winners?

The data on "initiates" has already been presented under central characters, secondary characters and other. Table 19 summarizes this data.

| TABLE 19 |

SUMMARY OF PERCENTAGES OF THE INSTRUCTIONAL BEHAVIOR, INITIATES

<table>
<thead>
<tr>
<th>Central Characters</th>
<th>Secondary Characters</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entire Films</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Openings</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>Bodies</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Closings</td>
<td>A</td>
<td></td>
</tr>
</tbody>
</table>

A - represents a 2:1 higher ratio difference by award winners
N - represents a 2:1 higher ratio difference by nonaward winners

Award winners' instructional behaviors are 62% initiation of facts and nonaward winners are 44% initiation of facts. Award winners initiate more facts than nonaward winners in secondary characters' film closings, and others' entire films, and film bodies.
Nonaward winners central characters initiate more facts than award winners in film openings.

Research Question 2: What are the descriptive differences in instructional patterns using the OSIA IV matrix, strategy context analysis and standard variable analysis between award winners and non-award winners?

Communication Moves: Sources of communication are central characters, secondary characters, and "other". Table 20 lists the number of communication moves from one source to another source.

Central characters' instructional behaviors were followed primarily by secondary characters in nonaward winners and "other" in award winners.

Secondary characters' instructional behaviors were followed primarily by central characters in nonaward winners and "other" in award winners.

Others' instructional behaviors were followed primarily by central characters in award winners and secondary characters in award winners.

In conclusion it appears that the central characters and secondary characters in nonaward winners have more interaction than those in award winners. "Other" in award winners appears to have more interaction than in nonaward winners. Table 21 lists
TABLE 20
MEAN FREQUENCIES: COMMUNICATION MOVES FROM ONE SOURCE TO ANOTHER

<table>
<thead>
<tr>
<th></th>
<th>Central Characters to</th>
<th>Secondary Characters to</th>
<th>Other to</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Secondary</td>
<td>Other</td>
<td>Central</td>
</tr>
<tr>
<td></td>
<td>*(T→S)</td>
<td>*(T→Q)</td>
<td>*(S→T)</td>
</tr>
<tr>
<td>Award Winners</td>
<td>5.5</td>
<td>3.1</td>
<td>5</td>
</tr>
<tr>
<td>Nonaward Winners</td>
<td>13.4</td>
<td>0.5</td>
<td>13.6</td>
</tr>
</tbody>
</table>

*represents at least a 2:1 ratio difference between award winners and nonaward winners
the data, one instructional behavior being followed with another by the same communication source.

TABLE 21
MEAN FREQUENCIES OF INSTRUCTIONAL BEHAVIOR MOVES WITHIN A COMMUNICATION SOURCE

<table>
<thead>
<tr>
<th>Behavior followed by another behavior</th>
<th>Central Characters (T→T)</th>
<th>Secondary Characters (S→S)</th>
<th>Other (O→O)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award Winners</td>
<td>8.4</td>
<td>2.7</td>
<td>0.3</td>
</tr>
<tr>
<td>Nonaward Winners</td>
<td>9.5</td>
<td>8.3</td>
<td>0.4</td>
</tr>
</tbody>
</table>

*represents at least a 2:1 ratio in percentages between award winners and nonaward winners.

Nonaward winners have a higher 2:1 ratio difference with a secondary character behavior being followed by another secondary character behavior.

The OSIA IV matrix was analyzed to determine the 5 most frequently occurring instructional behavior moves by central and secondary characters and other. These are listed in Appendix P. The investigator does not note any patterns worthy of mention except the high number of the behavior "initiates" by award winners.
Actors Time in Relation to Strategies: The percentage of actor time was analyzed in terms of the strategies: direct (expository), interactive (reciprocal), and independent (private) (Table 22).

TABLE 22
PERCENTAGE OF ACTOR TIME BY STRATEGY FOR ENTIRE FILMS

<table>
<thead>
<tr>
<th></th>
<th>Central Characters</th>
<th>Secondary Characters</th>
<th>Other</th>
<th>External Nonfunctional</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Award Winners</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct</td>
<td>21%</td>
<td>8%</td>
<td>31%</td>
<td>12%</td>
</tr>
<tr>
<td>Interactive</td>
<td>12%</td>
<td>*7%</td>
<td>*5%</td>
<td>4%</td>
</tr>
<tr>
<td>Independent</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Nonaward Winners</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct</td>
<td>18%</td>
<td>5%</td>
<td>17%</td>
<td>11%</td>
</tr>
<tr>
<td>Interactive</td>
<td>19%</td>
<td>*24%</td>
<td>*1%</td>
<td>5%</td>
</tr>
<tr>
<td>Independent</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

*represents a 2:1 ratio difference between award winners and non-award winners.

a Award winners total frequency 783; nonaward winners 653
b Award winners total frequency 367; nonaward winners 510
c Award winners total frequency 842; nonaward winners 313
d Award winners total frequency 385; nonaward winners 278

Award winners have a 2:1 higher ratio difference when compared to nonaward winners for "other" in the interactive strategy.
Nonaward winners have a 2:1 higher ratio difference when compared to award winners for secondary characters in the interactive strategy.

Table 23 lists the differences between award winners and nonaward winners when openings, bodies and closings are compared.

### TABLE 23
PERCENTAGES OF ACTOR TIME BY STRATEGY FOR FILM OPENINGS, BODIES AND CLOSINGS

<table>
<thead>
<tr>
<th></th>
<th>Central Characters</th>
<th>Secondary Characters</th>
<th>Other</th>
<th>External Nonfunctional</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Award Winners</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Openings</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct</td>
<td>21%</td>
<td>* 2%</td>
<td>44%</td>
<td>21%</td>
</tr>
<tr>
<td>Interactive</td>
<td>* 2%</td>
<td>* 9%</td>
<td></td>
<td>* 1%</td>
</tr>
<tr>
<td>Independent</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nonaward Winners</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Openings</td>
<td>21%</td>
<td>* 11%</td>
<td>30%</td>
<td>26%</td>
</tr>
<tr>
<td>Interactive</td>
<td>* 4%</td>
<td>* 3%</td>
<td>* 2%</td>
<td>* 3%</td>
</tr>
<tr>
<td>Independent</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Award Winners</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bodies</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct</td>
<td>22%</td>
<td>* 12%</td>
<td>* 28%</td>
<td>12%</td>
</tr>
<tr>
<td>Interactive</td>
<td>13%</td>
<td>* 5%</td>
<td>* 5%</td>
<td>4%</td>
</tr>
<tr>
<td>Independent</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nonaward Winners</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bodies</td>
<td>18%</td>
<td>* 5%</td>
<td>* 14%</td>
<td>10%</td>
</tr>
<tr>
<td>Interactive</td>
<td>22%</td>
<td>* 27%</td>
<td></td>
<td>5%</td>
</tr>
<tr>
<td>Independent</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Award Winners</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Closings</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct</td>
<td>*25%</td>
<td>9%</td>
<td>*51%</td>
<td>*15%</td>
</tr>
<tr>
<td>Interactive</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Independent</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nonaward Winners</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Closings</td>
<td>* 2%</td>
<td>9%</td>
<td>* 18%</td>
<td>* 2%</td>
</tr>
<tr>
<td>Interactive</td>
<td>*17%</td>
<td>* 5%</td>
<td>* 33%</td>
<td>* 16%</td>
</tr>
<tr>
<td>Independent</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*represents at least a 2:1 ratio difference between award winners and nonaward winners
In film openings, award winners secondary characters have higher percentages of interaction. Nonaward winners central characters have higher percentages of interaction. Nonaward winners secondary characters have higher percentages of direct communication. Nonaward winners "other" show higher percentages of interaction.

In film bodies, award winners' secondary characters have higher percentages of direct communication while nonaward winners' secondary characters have higher percentages of interaction. Award winners' "other" show higher percentages of direct communication and interaction.

In film closings, only award winners use the direct communication strategy. Award winners central characters and "other" have higher percentages of direct communication. In contrast, nonaward winners consistently have higher percentages of interaction.

OSIA IV Functions by Strategies: The OSIA IV computer analysis program calculated the percentage of behaviors by the function categories substantive, managerial, appraisal and non-functional (Table 24).

The function difference between award winners and non-award winners is in the variable appraisal. Nonaward winners have a higher percentage of appraisal.
Neither award winners nor nonaward winners have appraisal in film openings.

In film bodies, award winners have 1% appraisal with interactive strategy and 2% appraisal with interactive strategy. Nonaward winners have 1% appraisal with direct strategy and 5% appraisal with interactive strategy.

<table>
<thead>
<tr>
<th></th>
<th>Substantive</th>
<th>Managerial</th>
<th>Appraisal</th>
<th>Non-functional</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Award Winners</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct</td>
<td>59%</td>
<td>-</td>
<td>1%</td>
<td>12%</td>
</tr>
<tr>
<td>Interactive</td>
<td>23%</td>
<td>-</td>
<td>*1%</td>
<td>4%</td>
</tr>
<tr>
<td>Independent</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Nonaward Winners</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct</td>
<td>39%</td>
<td>-</td>
<td>-</td>
<td>11%</td>
</tr>
<tr>
<td>Interactive</td>
<td>41%</td>
<td>-</td>
<td>*4%</td>
<td>5%</td>
</tr>
<tr>
<td>Independent</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

*represents at least a 2:1 ratio difference between award winners and nonaward winners

award winners total frequency was 1942; nonaward winners 1396
award winners total frequency was 50; nonaward winners 82
award winners total frequency was 386; nonaward winners 278

In film closings, award winners have 2% appraisal with direct strategy and nonaward winners have 2% appraisal with an interactive strategy.

Data pertaining to strategy context and the substantive function is not worthy of elaboration. The managerial function was not present in any films.
Standard Variable Analysis: The OSIA IV computer analysis combines the frequencies of specific instructional behaviors and organizes them in terms of climate, interaction, appraisal and general variables.

The numbers in parenthesis following each variable in the following tables represent the specific instructional behaviors that were combined to calculate the percentage of the first variable listed to the second.

Climate Variables: Climate variables pertain to the directness or indirectness of the communication. The instructional behaviors chosen to represent the climate variables were determined by Hough, Duncan and Belland based on research done by Flanders.

Table 25 lists the climate variables for award winners and nonaward winners' entire films.

Central characters in nonaward winners have higher percentages of indirect instructional behaviors than award winners' central characters.

Central characters in nonaward winners also have higher percentages of clarification and acknowledgment in comparison to judgmental appraisal behaviors.

Secondary characters in nonaward winners have higher percentages of indirect instructional behaviors than award winners' secondary characters.
<table>
<thead>
<tr>
<th>TABLE 25</th>
<th>CLIMATE VARIABLES IN ENTIRE FILMS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Central Characters</strong></td>
</tr>
<tr>
<td></td>
<td>Ratio</td>
</tr>
<tr>
<td><strong>Award Winners</strong></td>
<td></td>
</tr>
<tr>
<td>Indirect/Direct</td>
<td></td>
</tr>
<tr>
<td>(5,6,7,8,9,10/4,11,12)</td>
<td>39/452=0.086</td>
</tr>
<tr>
<td>Indirect/Direct in Response or Reaction</td>
<td></td>
</tr>
<tr>
<td>(1-x-&gt;5,6,7,8,9,10/1-x-&gt;4,11,12)</td>
<td>12/24=0.500</td>
</tr>
<tr>
<td>Modified Indirect/Direct</td>
<td></td>
</tr>
<tr>
<td>(6,8,9,10/11,12)</td>
<td>17/22=0.773</td>
</tr>
<tr>
<td>Modified Indirect/Direct in Response or Reaction</td>
<td></td>
</tr>
<tr>
<td>(1-x-&gt;6,7,8,10/1-x-&gt;11,12)</td>
<td>2/1=2.000</td>
</tr>
<tr>
<td>Clarification, Acknowledgment/Judgmental Appraisal</td>
<td></td>
</tr>
<tr>
<td>(6,10/8,9,11,12)</td>
<td>6/33=0.182</td>
</tr>
<tr>
<td><strong>Nonaward Winners</strong></td>
<td></td>
</tr>
<tr>
<td>Indirect/Direct</td>
<td></td>
</tr>
<tr>
<td>(5,6,7,8,9,10/4,11,12)</td>
<td>165/391=0.422</td>
</tr>
<tr>
<td>Indirect/Direct in Response or Reaction</td>
<td></td>
</tr>
<tr>
<td>(1-x-&gt;5,6,7,8,9,10/1-x-&gt;4,11,12)</td>
<td>129/26=4.962</td>
</tr>
<tr>
<td>Modified Indirect/Direct</td>
<td></td>
</tr>
<tr>
<td>(6,8,9,10/11,12)</td>
<td>30/16=1.875</td>
</tr>
<tr>
<td>Modified Indirect/Direct in Response or Reaction</td>
<td></td>
</tr>
<tr>
<td>(1-x-&gt;6,8,9,10/1-x-&gt;11,12)</td>
<td>18/8=2.250</td>
</tr>
<tr>
<td>Clarification, Acknowledgment/Judgmental Appraisal</td>
<td></td>
</tr>
<tr>
<td>(6,10/8,9,11,12)</td>
<td>18/28=0.643</td>
</tr>
</tbody>
</table>

*represents at least a 2:1 ratio difference between award winners and nonaward winners
Climate variables are not present in award winners and nonaward winners' film openings.

The findings for climate variables in film bodies are consistent with those in entire films.

Nonaward winners' film closings have higher percentages of central character indirectness and clarification, acknowledgment than award winners. Nonaward winners' film closings also have higher percentages of secondary character clarification and acknowledgment.

**Interaction Variables:** Specific interaction patterns are defined as listed in Table 26.

In entire films, award winners' central characters have higher percentages of "solicitation, clarification" in comparison to "response". Nonaward winners' central characters have higher percentages of "solicitation, clarification" in comparison to "initiation", "response" in comparison to "initiation", "clarification" in comparison to "response and initiation in reaction", and "clarification of response" in comparison to "appraisal of response".

Nonaward winners' secondary characters have higher percentages of "solicitation, clarification" in comparison to "initiation", "response" in comparison to "initiation", "clarification of response" in comparison to "appraisal of response", and "solicitation following response" in comparison to "appraisal of response".
### TABLE 26
INTERACTION VARIABLES IN ENTIRE FILMS

<table>
<thead>
<tr>
<th></th>
<th>Central Characters</th>
<th>Secondary Characters</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ratio</td>
<td>% Numerator</td>
</tr>
<tr>
<td><strong>Award Winners</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solicitation, Clarification/Response (6,7/5)</td>
<td>35/12=2.917 * 75%</td>
<td>44/15=2.933 75%</td>
</tr>
<tr>
<td>Solicitation, Clarification/Initiation (6,7/4)</td>
<td>35/411=0.085 * 8%</td>
<td>44/249=0.177 *15%</td>
</tr>
<tr>
<td>Response/Initiation (5/4)</td>
<td>12/411=0.029 * 3%</td>
<td>15/249=0.060 * 6%</td>
</tr>
<tr>
<td>Immediate Response/Response After Silence (6,7,--5/1,2,3,--5)</td>
<td>6/0=99.990 *100%</td>
<td>2/1=2.000 67%</td>
</tr>
<tr>
<td>Clarification/Solicitation in Reaction (4,5,6,7--6/4,5,6,7--7)</td>
<td>1/2=0.500 33%</td>
<td>2/8=0.250 20%</td>
</tr>
<tr>
<td>Clarification/Response and Initiation in Reaction (4,5,6,7--6/4,5,6,7--4,5)</td>
<td>1/26=0.038 * 4%</td>
<td>2/25=0.080 7%</td>
</tr>
<tr>
<td>Clarification of Response/Appraisal of Response (5--6/5--8,9,10,11,12)</td>
<td>0/0=0.0 * 0%</td>
<td>0/1=0.0 * 0%</td>
</tr>
<tr>
<td>Solicitation Following Response/Appraisal of Response (5--7/5--8,9,10,11,12)</td>
<td>1/0=99.990 100%</td>
<td>0/1=0.0 * 0%</td>
</tr>
<tr>
<td>Responses/Appraisal of Responses (4,5,6,7--5/5--8,9,10,11,12)</td>
<td>6/0=99.990 100%</td>
<td>5/1=5.000 84%</td>
</tr>
</tbody>
</table>
TABLE 26 (con't)
INTERACTION VARIABLES IN ENTIRE FILMS

<table>
<thead>
<tr>
<th>Nonaward Winners</th>
<th>Central Characters</th>
<th>Secondary Characters</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ratio</td>
<td>% Numerator</td>
</tr>
<tr>
<td>Solicitation, Clarification/Response   (6,7/5)</td>
<td>64/120=0.533</td>
<td>* 35%</td>
</tr>
<tr>
<td>Solicitation, Clarification/Initiation  (6,7/4)</td>
<td>64/342=0.187</td>
<td>* 16%</td>
</tr>
<tr>
<td>Response/Initiation                   (5/4)</td>
<td>120/342=0.351</td>
<td>* 27%</td>
</tr>
<tr>
<td>Immediate Response/Response After Silence (6,7- 5/1,2,3,- 5)</td>
<td>27/0=99.990</td>
<td>100%</td>
</tr>
<tr>
<td>Clarification/Solicitation in Reaction (4,5,6,7-&gt;6/4,5,6,7-&gt;7)</td>
<td>9/15=0.600</td>
<td>38%</td>
</tr>
<tr>
<td>Clarification/Response and Initiation in Reaction (4,5,6,7-&gt;6/4,5,6,7-&gt;4,5)</td>
<td>9/89=0.101</td>
<td>* 9%</td>
</tr>
<tr>
<td>Clarification of Response/Appraisal of Response (5-&gt;6/5- 8,9,10,11,12)</td>
<td>3/7=0.429</td>
<td>* 30%</td>
</tr>
<tr>
<td>Solicitation Following Response/Appraisal of Response (5-&gt;7/5-&gt;8,9,10,11,12)</td>
<td>9/7=1.286</td>
<td>56%</td>
</tr>
<tr>
<td>Responses/Appraisal of Responses (4,5,6,7- 5/5-&gt;7,9,10,11,12)</td>
<td>79/8=9.875</td>
<td>90%</td>
</tr>
</tbody>
</table>

*represents at least a 2:1 ratio difference between award winners and nonaward winners
In film openings, neither award winners nor nonaward winners central characters have interaction variables. Nonaward winners' secondary characters have a higher percentage of "response" in comparison to "initiation". In film bodies, film closings the findings are the same as in entire films.

**Appraisal Variables:** Appraisal variables are listed in Table 27.

Nonaward winners' central characters have higher percentages of "acknowledgment" in comparison to "judgmental reactions" and "objective criterion judgment" in comparison to "personal criterion judgments".

Award winners' secondary characters have higher percentages of "acknowledgment" in comparison to "judgmental" reactions.

Nonaward winners' secondary characters have higher percentages of "objective criterion judgment" in comparison to "personal criterion judgments" and "judgments" in comparison to "initiation, interactive".

In film openings, neither award winners nor nonaward winners have appraisal variables.

In film bodies, the findings are the same as in entire films.
TABLE 27
APPRAISAL VARIABLES IN ENTIRE FILMS

<table>
<thead>
<tr>
<th></th>
<th>Central Characters</th>
<th></th>
<th>Secondary Characters</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ratio</td>
<td>% Numerator</td>
<td>Ratio</td>
<td>% Numerator</td>
</tr>
<tr>
<td>Award Winners</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acknowledgment/Judgmental Reactions (10/8,9,11,12)</td>
<td>0/33=0.0          * 0%</td>
<td></td>
<td>2/15=0.133       * 12%</td>
<td></td>
</tr>
<tr>
<td>Favorable Judgment/Unfavorable Judgments (8,9/11,12)</td>
<td>11/22=0.500       33%</td>
<td></td>
<td>5/10=0.500       33%</td>
<td></td>
</tr>
<tr>
<td>Objective Criterion Judgment/Personal Criterion Judgments (8,11/9,12)</td>
<td>0/33=0.0          * 0%</td>
<td></td>
<td>0/15=0.0         * 0%</td>
<td></td>
</tr>
<tr>
<td>Judgment/Initiation, Interactive (8,9,11,12/4,5,6,7)</td>
<td>33/458=0.072      7%</td>
<td></td>
<td>15/308=0.049     * 5%</td>
<td></td>
</tr>
<tr>
<td>Nonaward Winners</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acknowledgment/Judgmental Reactions (10,9,11,12)</td>
<td>2/28=0.071        * 7%</td>
<td></td>
<td>1/51=0.020       * 2%</td>
<td></td>
</tr>
<tr>
<td>Favorable Judgment/Unfavorable Judgments (8,9/11,12)</td>
<td>12/16=0.750       43%</td>
<td></td>
<td>13/38=0.342      26%</td>
<td></td>
</tr>
<tr>
<td>Objective Criterion Judgment/Personal Criterion Judgments (8,11/9,12)</td>
<td>4/24=0.167        * 14%</td>
<td></td>
<td>10/41=0.244      * 20%</td>
<td></td>
</tr>
<tr>
<td>Judgment/Initiation, Interactive (8,9,11,12/4,5,6,7)</td>
<td>28/256=0.053      5%</td>
<td></td>
<td>51/364=0.140     * 12%</td>
<td></td>
</tr>
</tbody>
</table>

*represents at least a 2:1 ratio difference between award winners and nonaward winners
In film closings, award winners' central characters have higher percentages of "favorable judgment" in comparison to "unfavorable judgments", and "judgment" in comparison to "initiation, interactive". Award winners' secondary characters have higher percentages of "favorable judgment" in comparison to "unfavorable judgments".

In film closings, nonaward winners' central characters have higher percentages of "objective criterion judgment" in comparison to "personal criterion judgments".

**General Variables:** There are no differences between award winners and nonaward winners on general variables. These include: central character interaction, initiation/secondary character interaction, initiation; substantive behavior/managerial behavior; and functional behavior/nonfunctional behavior.

**Research Question 3a:** What are the descriptive differences in the use of third person narration "voice-overs" in the sound tracks between award winners and nonaward winners?

The sound track variable third person narration was coded in comparison to soliloquy and dialogue. Dialogue was further coded to determine whether it was "on-screen" or "off-screen" dialogue.
Narration (Third Person "Voice-Overs"): Table 28 describes the presence of third person narration in award winners and nonaward winners.

**TABLE 28**

<table>
<thead>
<tr>
<th></th>
<th><em>Entire Films</em></th>
<th><em>Openings</em></th>
<th><em>Bodies</em></th>
<th>Closings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award Winners</td>
<td>65%</td>
<td>76%</td>
<td>65%</td>
<td>53%</td>
</tr>
<tr>
<td>Nonaward Winners</td>
<td>35%</td>
<td>24%</td>
<td>35%</td>
<td>47%</td>
</tr>
</tbody>
</table>

*represents at least a 20% difference in normalized units between award winners and nonaward winners.

5 award winners; 4 nonaward winners
b4 award winners; 2 nonaward winners
c5 award winners; 3 nonaward winners
d4 award winners; 3 nonaward winners

Award winners' frequency is 612 and nonaward winners', 162.

Award winners are consistently higher than nonaward winners in the use of third person narration.

A variation of third person narration occurs when the narrator directed communication overtly to the viewer. The narrator's objective appears to be to stimulate the viewer through the use of questions and more active participation.

Award winners' frequency for this narrative style is 211 and nonaward winners; 204 (Table 29).
TABLE 29
NARRATIVE VARIATION: NARRATOR OVERTLY TALKING TO VIEWER

<table>
<thead>
<tr>
<th></th>
<th>Entire films</th>
<th>*Openings</th>
<th>Bodies</th>
<th>*Closings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award Winners</td>
<td>49%</td>
<td>100%</td>
<td>49%</td>
<td>21%</td>
</tr>
<tr>
<td>Nonaward Winners</td>
<td>51%</td>
<td>0</td>
<td>51%</td>
<td>79%</td>
</tr>
</tbody>
</table>

*represents at least a 20% difference in normalized units between award winners and nonaward winners.

Award winners have a higher percentage of narrative variation in film openings. Nonaward winners have a higher percentage in entire films, film bodies and film closings. However 20% differences do not occur when more than two films include the variable.

Soliloquy: Soliloquy is defined as talking to oneself. It is a dramatic monologue that gives the illusion of being a series of unspoken reflections (Table 30).

Award winners' frequency is 11 and nonaward winners' 5.

Award winners have a larger percentage of soliloquy than nonaward winners in the entire films, film openings and closings. Nonaward winners have a larger percentage of soliloquy in film bodies. However, the total frequency and number of films in which the variable occurred are very low.
### TABLE 30
**SOLILLOQUY**

<table>
<thead>
<tr>
<th></th>
<th>*Entire Films&lt;sup&gt;a&lt;/sup&gt;</th>
<th>*Openings&lt;sup&gt;b&lt;/sup&gt;</th>
<th>*Bodies&lt;sup&gt;c&lt;/sup&gt;</th>
<th>*Closings&lt;sup&gt;d&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award Winners</td>
<td>62%</td>
<td>100%</td>
<td>35%</td>
<td>100%</td>
</tr>
<tr>
<td>Nonaward Winners</td>
<td>38%</td>
<td>0</td>
<td>65%</td>
<td>0</td>
</tr>
</tbody>
</table>

*represents at least a 20% difference in normalized units between award winners and nonaward winners

<sup>a</sup> 2 award winners; 2 nonaward winners
<sup>b</sup> 1 award winner
<sup>c</sup> 2 award winners; 2 nonaward winners
<sup>d</sup> 1 award winner

**Dialogue:** Dialogus is defined as a communication between two or more persons (Table 31).

Award winners have a higher percentage of dialogue than nonaward winners in film openings and closings. Nonaward winners have a higher percentage of dialogue in the entire films and film bodies.

### TABLE 31
**DIALOGUE**

<table>
<thead>
<tr>
<th></th>
<th>Entire Films&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Openings&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Bodies&lt;sup&gt;c&lt;/sup&gt;</th>
<th>Closings&lt;sup&gt;d&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award Winners</td>
<td>42%</td>
<td>55%</td>
<td>41%</td>
<td>55%</td>
</tr>
<tr>
<td>Nonaward Winners</td>
<td>58%</td>
<td>45%</td>
<td>58%</td>
<td>45%</td>
</tr>
</tbody>
</table>

<sup>a</sup> 7 award winners; 7 nonaward winners
<sup>b</sup> 3 award winners; 3 nonaward winners
<sup>c</sup> 7 award winners; 7 nonaward winners
<sup>d</sup> 2 award winners; 2 nonaward winners
Award winners' frequency is 578 while nonaward winners' is 579. The extremely close frequencies are reinforced by the lack of 20% difference between any samples of award winners and nonaward winners.

**Sound Track Talk Variations:** Talk on the sound track is further subcoded as to the initiator's and receiver's visual presence on the screen (Table 32).

Award winners have a frequency of 408 when the initiator is on-screen and the receiver is off-screen. Nonaward winners have a frequency of 246. Examples include: an on-screen person talking to the viewer, to the narrator, or to another person over the telephone. In the examples, overt questions are asked to solicit response.

Award winners have higher percentages of this variable in the entire films, film bodies and film closings. Nonaward winners have a higher percentage in film openings.

Another sound track talk variation is a person off-screen initiating conversation with a person on-screen. For example, in one film the cameraman engages in conversation with an actor. In another, a radio dispatcher continues to initiate conversation to rescuers in a moving emergency vehicle.

Award winners have a frequency of 16 in use of this technique and nonaward winners 68 (Table 33).
Table 32
PERSON ON-SCREEN TALKING TO PERSON OFF-SCREEN

<table>
<thead>
<tr>
<th></th>
<th>*Entire Films</th>
<th>*Openings</th>
<th>*Bodies</th>
<th>*Closings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award Winners</td>
<td>62%</td>
<td>40%</td>
<td>63%</td>
<td>68%</td>
</tr>
<tr>
<td>Nonaward Winners</td>
<td>38%</td>
<td>60%</td>
<td>37%</td>
<td>32%</td>
</tr>
</tbody>
</table>

*represents at least a 20% difference in normalized units between award winners and nonaward winners

<table>
<thead>
<tr>
<th></th>
<th>Award Winners</th>
<th>Nonaward Winners</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3 award winners; 4 nonaward winners</td>
<td>3 award winners; 4 nonaward winners</td>
</tr>
<tr>
<td></td>
<td>1 award winner; 2 nonaward winners</td>
<td>1 award winner</td>
</tr>
<tr>
<td></td>
<td>8 award winners; 4 nonaward winners</td>
<td>3 award winners; 1 nonaward winner</td>
</tr>
</tbody>
</table>

Table 33
PERSON OFF-SCREEN TALKING TO PERSON ON-SCREEN

<table>
<thead>
<tr>
<th></th>
<th>*Entire Films</th>
<th>*Openings</th>
<th>*Bodies</th>
<th>*Closings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award Winners</td>
<td>23%</td>
<td>100%</td>
<td>18%</td>
<td>100%</td>
</tr>
<tr>
<td>Nonaward Winners</td>
<td>77%</td>
<td>0</td>
<td>82%</td>
<td>0</td>
</tr>
</tbody>
</table>

*represents at least a 20% difference in normalized units between award winners and nonaward winners

<table>
<thead>
<tr>
<th></th>
<th>Award Winners</th>
<th>Nonaward Winners</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3 award winners; 1 nonaward winner</td>
<td>3 award winners; 1 nonaward winner</td>
</tr>
<tr>
<td></td>
<td>1 award winner</td>
<td>1 award winner</td>
</tr>
<tr>
<td></td>
<td>3 award winners; 1 nonaward winner</td>
<td>1 award winner</td>
</tr>
</tbody>
</table>

No Talk On Sound Track: Finally, the variable of no talk on the sound track was coded. Award winners and nonaward winners were somewhat equal regarding this variable. Award winners had a frequency of 1777 and nonaward winners, 1804 (Table 34).
TABLE 34
NO TALK ON SOUND TRACK

<table>
<thead>
<tr>
<th></th>
<th>Entire Films</th>
<th>Openings</th>
<th>Bodies</th>
<th>Closings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award Winners</td>
<td>50%</td>
<td>45%</td>
<td>53%</td>
<td>45%</td>
</tr>
<tr>
<td>Nonaward Winners</td>
<td>45%</td>
<td>55%</td>
<td>47%</td>
<td>55%</td>
</tr>
</tbody>
</table>

^8 award winners; 8 nonaward winners
^7 award winners; 6 nonaward winners
^8 award winners; 8 nonaward winners
^8 award winners; 8 nonaward winners

Research Question 3b: What are the differences in use of visual dominance versus audio dominance between award winners and non-award winners?

**Audio Dominance:** Primary use of audio elements alone to communicate the message occurs only 4 times in two separate award winners. In both cases an unrecognizable extreme closeup is accompanied by symbolic music for a few seconds prior to a slow camera zoom out to reveal the visual.

**Visual Dominance:** The primary use of visual elements to communicate the message occurs with a frequency of 126 in award winners and 103 in nonaward winners. In these cases the sound track was void (Table 35).

Award winners have a higher percentage of visual dominance than nonaward winners in film bodies. Nonaward winners have a higher percentage of visual dominance in entire films, film openings and film closings.
TABLE 35
VISUAL DOMINANCE

<table>
<thead>
<tr>
<th></th>
<th>Entire films $^a$</th>
<th>*Openings $^b$</th>
<th>*Bodies $^c$</th>
<th>*Closings $^d$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award Winners</td>
<td>48%</td>
<td>25%</td>
<td>62%</td>
<td>39%</td>
</tr>
<tr>
<td>Nonaward Winners</td>
<td>52%</td>
<td>75%</td>
<td>38%</td>
<td>61%</td>
</tr>
</tbody>
</table>

*represents at least a 20% difference in normalized units between award winners and nonaward winners

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>$^a$</td>
<td>8 award winners; 7 nonaward winners</td>
<td></td>
</tr>
<tr>
<td>$^b$</td>
<td>5 award winners; 5 nonaward winners</td>
<td></td>
</tr>
<tr>
<td>$^c$</td>
<td>7 award winners; 4 nonaward winners</td>
<td></td>
</tr>
<tr>
<td>$^d$</td>
<td>7 award winners; 5 nonaward winners</td>
<td></td>
</tr>
</tbody>
</table>

Audiovisual Dominance: Audio and visual elements are both used to communicate in award winners with a frequency of 6572 and nonaward winners 7064 (Table 36).

Audiovisual dominance is higher in award winners' film openings and film closings. Nonaward winners have higher audiovisual dominance in entire films and film bodies.

Research Question 3c: What are the descriptive differences in film designs between award winners and nonaward winners?

Findings indicate that producers employ multiple film designs in a given film (Table 37).

Award winners have higher frequencies in the following designs: story plots, animation, creative, didactic and demonstration.
TABLE 36
AUDIOVISUAL DOMINANCE

<table>
<thead>
<tr>
<th></th>
<th>Entire Films&lt;sup&gt;a&lt;/sup&gt;</th>
<th>*Openings&lt;sup&gt;b&lt;/sup&gt;</th>
<th>Bodies&lt;sup&gt;c&lt;/sup&gt;</th>
<th>Closings&lt;sup&gt;d&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award winners</td>
<td>48%</td>
<td>61%</td>
<td>47%</td>
<td>55%</td>
</tr>
<tr>
<td>Nonaward winners</td>
<td>51%</td>
<td>39%</td>
<td>53%</td>
<td>45%</td>
</tr>
</tbody>
</table>

*represents at least a 20% difference in normalized units between award winners and nonaward winners

<sup>a</sup> 8 award winners; 7 nonaward winners
<sup>b</sup> 8 award winners; 6 nonaward winners
<sup>c</sup> 8 award winners; 8 nonaward winners
<sup>d</sup> 7 award winners; 6 nonaward winners

Nonaward winners had higher frequencies in designs as follows: dramatic, open-ended, simulation and single concept.

The documentary design was employed equally by award winners and nonaward winners.

Research Question 3d: What are the differences in cognitive use of music (content support), affective use of music (emotional support) and general use of music (background) between the award winners and nonaward winners?

Seven award winners and five nonaward winners have music. One nonaward winner has music in place of talk on the sound track.

Cognitive Music: Music for cognitive support is used by award winners as title theme music primarily to establish set.

Award winners have a frequency of 142 for cognitive music in three films and nonaward winners do not use cognitive music.
TABLE 37
FILM DESIGNS

<table>
<thead>
<tr>
<th>Story Plot</th>
<th>Animation Creative</th>
<th>Didactic</th>
<th>Demonstration</th>
<th>Documentary</th>
<th>Dramatic</th>
<th>Open Ended</th>
<th>Simulation</th>
<th>Single Concept</th>
</tr>
</thead>
</table>

**Award Winners**

| #1 | x | x | x |           |          |           |           |                |
| #2 | x | x |   |           | x        |           |           |                |
| #3 | x |   | x |           |          |           |           |                |
| #4 | x |   | x |           |          |           | x         |                |
| #5 |   |   | x |           | x        |           |           |                |
| #6 | x |   | x |           |          |           | x         | x              |
| #7 |   | x |   |           |          |           | x         | x              |
| #8 | x |   |   |           |          |           |           |                |
| TOTAL | 5 | 4 | 5 | 3 | 2 | 3 | 1 | 1 | 0 | 0 |

**Nonaward Winners**

| #1 | x |               |           |           |          |           |           |                |
| #2 | x |               |           |           | x        |           |           |                |
| #3 |   |               |           |           | x        |           |           |                |
| #4 | x |               |           |           |          |           |           | x              |
| #5 | x |               |           |           |          |           |           | x              |
| #6 | x |               |           |           | x        |           | x         | x              |
| #7 | x |               |           |           |          |           | x         |                |
| #8 | x |               |           |           |          |           |           | x              |
| TOTAL | 3 | 1 | 1 | 2 | 1 | 3 | 3 | 2 | 1 | 1 |

*definitions to category headings may be found in Chapter I.*
TABLE 38  
COGNITIVE MUSIC

<table>
<thead>
<tr>
<th></th>
<th>*Entire Films(^a)</th>
<th>*Openings(^b)</th>
<th>*Bodies(^c)</th>
<th>*Closings(^d)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award winners</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Nonaward winners</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

\(^a\) represents at least a 20% difference in normalized units between award winners and nonaward winners
\(^b\) award winners
\(^c\) award winners
\(^d\) award winners

Affective Music: Affective music is used as an emotional stimulus. Examples include "Taps" at a funeral service, a march for actor heroes and light-hearted violin and piano music for care-free actors.

Affective music is also used as a substitute for words to express feelings. Examples include short musical passages that expressed the character's mood, such as panic, exhaustion, frustration, happiness.

Another use of affective music is to symbolize or reinforce the emotional aspect of the visual. Examples include a heavy drum beat to represent destruction, a drum roll for a fight, a dramatic cello solo to represent terror, and a heavy rock beat to represent determination.
Award winners consistently use a greater percentage of affective music than nonaward winners (Table 39). Award winners have a frequency of 571 and nonaward winners, 202.

**TABLE 39**

**AFFECTIVE MUSIC**

<table>
<thead>
<tr>
<th></th>
<th>*Entire films(^a)</th>
<th>*Openings(^b)</th>
<th>*Bodies(^c)</th>
<th>*Closings(^d)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award winners</td>
<td>66%</td>
<td>62%</td>
<td>65%</td>
<td>86%</td>
</tr>
<tr>
<td>Nonaward winners</td>
<td>34%</td>
<td>38%</td>
<td>35%</td>
<td>14%</td>
</tr>
</tbody>
</table>

*represents at least a 20% difference in normalized units between award winners and nonaward winners

\(^a\) 6 award winners; 4 nonaward winners

\(^b\) 5 award winners; 3 nonaward winners

\(^c\) 6 award winners; 3 nonaward winners

\(^d\) 4 award winners; 1 nonaward winner

**General Music:** General music is blended into sound track backgrounds without specific cognitive or affective meaning. Award winners have a frequency of 48 and nonaward winners 319 (Table 40).

Award winners have a slightly greater use of general music than nonaward winners in film openings. Nonaward winners have a greater use of general music in entire films, film bodies and film closings.
**TABLE 40**

**GENERAL MUSIC**

<table>
<thead>
<tr>
<th></th>
<th>*Entire Films (^a)</th>
<th>Openings (^b)</th>
<th>*Bodies (^c)</th>
<th>*Closings (^d)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award winners</td>
<td>8%</td>
<td>52%</td>
<td>4%</td>
<td>16%</td>
</tr>
<tr>
<td>Nonaward winners</td>
<td>92%</td>
<td>48%</td>
<td>96%</td>
<td>84%</td>
</tr>
</tbody>
</table>

\(^*\)represents at least a 20% difference in normalized units between award winners and nonaward winners

\(^a\) 3 award winners; 4 nonaward winners
\(^b\) 2 award winners; 3 nonaward winners
\(^c\) 2 award winners; 2 nonaward winners
\(^d\) 1 award winner; 3 nonaward winners

**Musical Instrumentation:** During coding, it was noted whether the music was by a solo instrument, small ensemble, or full orchestration.

Award winners have a frequency of 15 using solo instrumentation while nonaward winners have 283. Nonaward winners consistently use more solo instruments (Table 41).

Small ensembles have a frequency of 698 by award winners and 109 by nonaward winners (Table 42).

Award winners consistently use more small ensembles than nonaward winners.

Full orchestration is used only by one award winner in the film opening and closing with a total frequency of 30.
### TABLE 41
SOLO INSTRUMENTS

<table>
<thead>
<tr>
<th></th>
<th>*Entire Films&lt;sup&gt;a&lt;/sup&gt;</th>
<th>*Openings&lt;sup&gt;b&lt;/sup&gt;</th>
<th>*Bodies&lt;sup&gt;c&lt;/sup&gt;</th>
<th>*Closings&lt;sup&gt;d&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award winners</td>
<td>4%</td>
<td>13%</td>
<td>2%</td>
<td>27%</td>
</tr>
<tr>
<td>Nonaward winners</td>
<td>96%</td>
<td>87%</td>
<td>98%</td>
<td>73%</td>
</tr>
</tbody>
</table>

*represents at least a 20% difference in normalized units between award winners and nonaward winners

<sup>a</sup> 3 award winners; 3 nonaward winners
<sup>b</sup> 2 award winners; 2 nonaward winners
<sup>c</sup> 1 award winner; 3 nonaward winners
<sup>d</sup> 2 award winners; 1 nonaward winner

### TABLE 42
SMALL ENSEMBLES

<table>
<thead>
<tr>
<th></th>
<th>*Entire Films&lt;sup&gt;a&lt;/sup&gt;</th>
<th>*Openings&lt;sup&gt;b&lt;/sup&gt;</th>
<th>*Bodies&lt;sup&gt;c&lt;/sup&gt;</th>
<th>*Closings&lt;sup&gt;d&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award winners</td>
<td>85%</td>
<td>80%</td>
<td>88%</td>
<td>72%</td>
</tr>
<tr>
<td>Nonaward winners</td>
<td>15%</td>
<td>20%</td>
<td>12%</td>
<td>28%</td>
</tr>
</tbody>
</table>

*represents at least a 20% difference in normalized units between award winners and nonaward winners

<sup>a</sup> 6 award winners; 4 nonaward winners
<sup>b</sup> 6 award winners; 3 nonaward winners
<sup>c</sup> 6 award winners; 4 nonaward winners
<sup>d</sup> 6 award winners; 3 nonaward winners

Lyrics accompanying the music occur with a frequency of 49 in award winners and 98 in nonaward winners (Table 43).
TABLE 43
LYRICS

<table>
<thead>
<tr>
<th></th>
<th>*Entire Films</th>
<th>Openings</th>
<th>*Bodies</th>
<th>*Closings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award winners</td>
<td>26%</td>
<td>43%</td>
<td>17%</td>
<td>71%</td>
</tr>
<tr>
<td>Nonaward winners</td>
<td>74%</td>
<td>57%</td>
<td>83%</td>
<td>29%</td>
</tr>
</tbody>
</table>

*represents at least a 20% difference in normalized units between award winners and nonaward winners

2 award winners; 2 nonaward winners
1 award winner; 1 nonaward winner
1 award winner; 1 nonaward winner
1 award winner; 1 nonaward winner

Award winners have a greater percentage of lyrics in film closings. Nonaward winners have a greater percentage of lyrics in entire films, film openings and film bodies.

The lyrics to the two award winners were coded. The total frequency is 27. The lyrics of only one nonaward winner was codable with a total frequency of 4.

Research Question 3e: What are the differences in use of color as a cognitive discrimination cue and use of color as an affective cue between award winners and nonaward winners?

All award winners and all nonaward winners are in color.

Cognitive Discrimination Color: Color was coded as cognitive if it was used to show what an object looked like for clarification and/or discrimination. There are multiple examples of cognitive color in which blood, the color red, is employed to
identify trauma, anatomical locations, and realism. In several films the ashen, cyanotic color of victims in shock is used for discrimination.

The color white is used to identify hospital health care professionals who wear white lab coats, suits, or dresses. In some cases this use of the color white is complemented by the actor's use of a white costume to symbolize authority. In these cases, both cognitive color and ethos were coded.

Other examples of cognitive color include realistic use of color for discrimination of tissue cultures, photomicroscopy slides, and x-rays.

Award winners have a frequency of 641 and nonaward winners 2489 in their use of cognitive color (Table 44).

Nonaward winners consistently have a greater percentage of cognitive color.

Affective Color: Affective color is coded when color shows what an object or message means symbolically as an affective cue or creates a psychological feeling about a subject.

The color black is used to represent mourning, old age, and frustration. Red is used to represent impending danger, as a red flashing light, as well as love.

In one film a red, white and blue backdrop is used to communicate to the viewer that the ideas expressed are the "American Way".
In a rehabilitation film, as the patients progress, more and more colorful flowers appear in the foreground.

A film on research uses still graphics to represent two stimuli. The aversive, threatening stimuli are brown, while the more desirable stimuli are green.

A film on the handicapped uses the golden backlighting of a late afternoon sun in a scene to depict the rich interpersonal relationship between a person with paraplegia and his spouse.

Frequencies for affective color are 482 for award winners and 423 for nonaward winners (Table 45).

Award winners have a higher percentage of affective color than nonaward winners in film closings.

Nonaward winners have a higher percentage of affective color than award winners in entire films, film openings and bodies.
### TABLE 45
**AFFECTIVE COLOR**

<table>
<thead>
<tr>
<th></th>
<th>Entire Films</th>
<th>Openings</th>
<th>Bodies</th>
<th>*Closings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Award winners</strong></td>
<td>46%</td>
<td>44%</td>
<td>46%</td>
<td>67%</td>
</tr>
<tr>
<td><strong>Nonaward winners</strong></td>
<td>54%</td>
<td>56%</td>
<td>54%</td>
<td>33%</td>
</tr>
</tbody>
</table>

*represents at least a 20% difference in normalized units between award winners and nonaward winners

<table>
<thead>
<tr>
<th></th>
<th>Entire Films</th>
<th>Openings</th>
<th>Bodies</th>
<th>*Closings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Award winners</strong></td>
<td>59%</td>
<td>65%</td>
<td>59%</td>
<td>53%</td>
</tr>
<tr>
<td><strong>Nonaward winners</strong></td>
<td>41%</td>
<td>35%</td>
<td>41%</td>
<td>47%</td>
</tr>
</tbody>
</table>

*represents at least a 20% difference in normalized units between award winners and nonaward winners

---

**General Color:** If the use of color is neither cognitive or affective it was coded as "general".

Award winners have a frequency of 1158 for general color and nonaward winners have a frequency of 610 (Table 46).
Award winners consistently have higher percentages of general color.

Research Question 3f: What are the descriptive differences in use of pauses in award winners and nonaward winners?

Pauses: Pauses were coded during the period of time immediately following a major event on the screen to allow for a mentally "settling down", or to permit time to reflect on previous action or to facilitate time to become oriented to a new scene.

Pauses are characterized by no talking and either the absence of actors or actors engaged in "sensing".

When communication is overtly directed to the viewers there are no pauses in award winners or nonaward winners.

When communication is covertly directed to the viewer, award winners have a frequency of 68 for pauses and nonaward winners have a frequency of 60 (Table 47).

Neither award winners nor nonaward winners use pauses when in covert communication with the viewer in film openings.

Nonaward winners have a higher percentage difference in use of pauses in entire films, film bodies and film closings. However, note that 6 award winners use pauses when in covert communication with the viewer, while 2 nonaward winners use pauses under this communication condition.
When communication is not directed to the viewer, award winners have a frequency of 3 pauses and nonaward winners had a frequency of 22 pauses (Table 48). Award winners and nonaward winners do not use pauses in film openings when the communication is not directed to the viewer. Nonaward winners have a higher percentage difference in use of these pauses in entire films, film bodies and film closings.

<table>
<thead>
<tr>
<th></th>
<th>*Entire Films</th>
<th>Openings</th>
<th>*Bodies</th>
<th>*Closings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Award winners</strong></td>
<td>34%</td>
<td>0</td>
<td>34%</td>
<td>38%</td>
</tr>
<tr>
<td><strong>Nonaward winners</strong></td>
<td>66%</td>
<td>0</td>
<td>66%</td>
<td>62%</td>
</tr>
</tbody>
</table>

*represents at least a 20% difference in normalized units between award winners and nonaward winners

a 6 award winners; 2 nonaward winners
b 0 award winners; 0 nonaward winners
c 5 award winners; 2 nonaward winners
d 2 award winners; 1 nonaward winner
Research Question 3g: What are the descriptive differences in the use of audience involvement techniques in award winners and non-award winners?

Communication Direction: Every event was coded as to viewer involvement. If the actor was looking straight at the viewer and giving specific information or asking questions for the viewer to answer, the event was coded as overt communication directed to the viewer. The frequency for award winners is 5 and nonaward winners, 30.

If the communication was viewer-oriented, such as a narrator describing the visuals, but not directly expository, the event was coded as covert communication directed to the viewer. Award winners have a frequency of 1427 and nonaward winners 906.

Communication not directed to the viewer was coded in events such as actors' interactions. Award winners have a frequency of 604 and nonaward winners 989 (Table 49).

<table>
<thead>
<tr>
<th></th>
<th>Award winners</th>
<th>Nonaward winners</th>
</tr>
</thead>
<tbody>
<tr>
<td>*Overt Viewer Communication</td>
<td>14.3%</td>
<td>85.7%</td>
</tr>
<tr>
<td>*Covert Viewer Communication</td>
<td>61.2%</td>
<td>38.8%</td>
</tr>
<tr>
<td>*No Viewer Communication</td>
<td>38%</td>
<td>62%</td>
</tr>
</tbody>
</table>

*represents at least a 20% difference in normalized units between award winners and nonaward winners
Award winners have the highest percentage of covert viewer communication. Nonaward winners have the highest percentage of overt viewer communication and no viewer communication.

Communication Strategies: Another way of focusing on the question of audience involvement was to code the communication strategies: direct (expository), interactive (reciprocal), or independent (private) (Table 50).

For the direct strategy, award winners have a frequency of 1708 and nonaward winners 894. For the interactive strategy, award winners have a frequency of 669 and nonaward winners 860. For independent, award winners have a frequency of 2 and nonaward winners 1.

<table>
<thead>
<tr>
<th></th>
<th>Direct</th>
<th>Interactive</th>
<th>Independent</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Entire Films</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Award winners</td>
<td>72%</td>
<td>28%</td>
<td>0</td>
</tr>
<tr>
<td>Nonaward winners</td>
<td>51%</td>
<td>49%</td>
<td>0</td>
</tr>
<tr>
<td><strong>Openings</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Award winners</td>
<td>88%</td>
<td>12%</td>
<td>0</td>
</tr>
<tr>
<td>Nonaward winners</td>
<td>89%</td>
<td>11%</td>
<td>0</td>
</tr>
<tr>
<td><strong>Bodies</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Award winners</td>
<td>73%</td>
<td>*27%</td>
<td>0</td>
</tr>
<tr>
<td>Nonaward winners</td>
<td>89%</td>
<td>11%</td>
<td>0</td>
</tr>
<tr>
<td><strong>Closings</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Award winners</td>
<td>70%</td>
<td>24%</td>
<td>0</td>
</tr>
<tr>
<td>Nonaward winners</td>
<td>47%</td>
<td>*53%</td>
<td>0</td>
</tr>
</tbody>
</table>

*represents at least a 20% difference between award winners and nonaward winners
Award winners have highest percentages of the direct communication strategy in the entire films and film closings.

Nonaward winners have the highest percentages of the interactive communication strategy in the entire films, film bodies and film closings. Neither award winners or nonaward winners use the independent communication strategy.

All eight award winners open and close with the direct strategy.

Six nonaward winners open with the direct strategy.
Seven nonaward winners close with the direct strategy.

**Camera Angle:** Camera angle was coded as a measure of audience involvement. In a subjective point-of-view, the viewer experiences the film in the "first person". In the objective camera angle the viewer observes interaction from a "third person" point-of-view. The assumption is that there is more audience involvement with a subjective camera angle (Table 51).

Award winners have a frequency of 2236 for objective camera angle and nonaward winners 1719. Award winners have a frequency of 143 for subjective camera angle and nonaward winners 36.

Seven award winners and five nonaward winners use subjective camera angles.
TABLE 51
CAMERA ANGLE

<table>
<thead>
<tr>
<th></th>
<th>Objective</th>
<th>Subjective</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Entire Films</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Award winners</td>
<td>94%</td>
<td>* 6%</td>
</tr>
<tr>
<td>Nonaward winners</td>
<td>98%</td>
<td>2%</td>
</tr>
<tr>
<td><strong>Openings</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Award winners</td>
<td>95%</td>
<td>* 4%</td>
</tr>
<tr>
<td>Nonaward winners</td>
<td>99%</td>
<td>1%</td>
</tr>
<tr>
<td><strong>Bodies</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Award winners</td>
<td>94%</td>
<td>* 7%</td>
</tr>
<tr>
<td>Nonaward winners</td>
<td>97%</td>
<td>2%</td>
</tr>
<tr>
<td><strong>Closings</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Award winners</td>
<td>72%</td>
<td>*28%</td>
</tr>
<tr>
<td>Nonaward winners</td>
<td>97%</td>
<td>3%</td>
</tr>
</tbody>
</table>

*represents at least a 2:1 ratio difference between award winners and nonaward winners

Award winners have higher percentages of subjective camera angles and nonaward winners have higher percentages of objective camera angles.

Research Question 3h: What are the descriptive differences in use of introductions and summaries by award winners and nonaward winners?

**Introductions:** Introductions are defined as clear, succinct statement of the problem to orient the audience and establish a "set" or condition of readiness.

Award winners do not direct introductions to the viewer overtly. One nonaward winner has an introduction with a frequency of 2 overtly directed to the viewer.
Five award winners and four nonaward winners have introductions covertly directed to the viewer. Award winners' frequency is 103 and nonaward winners' 44 (Table 52).

### TABLE 52
INTRODUCTIONS (COVERT VIEWER COMMUNICATION)

<table>
<thead>
<tr>
<th></th>
<th>*Entire films&lt;sup&gt;a&lt;/sup&gt;</th>
<th>*Openings&lt;sup&gt;b&lt;/sup&gt;</th>
<th>*Bodies&lt;sup&gt;c&lt;/sup&gt;</th>
<th>Closings&lt;sup&gt;d&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award winners</td>
<td>63%</td>
<td>64%</td>
<td>61%</td>
<td>0</td>
</tr>
<tr>
<td>Nonaward winners</td>
<td>37%</td>
<td>36%</td>
<td>39%</td>
<td>0</td>
</tr>
</tbody>
</table>

*represents at least a 20% difference in normalized units between award winners and nonaward winners

<sup>a</sup> 5 award winners; 4 nonaward winners

<sup>b</sup> 5 award winners; 2 nonaward winners

<sup>c</sup> 4 award winners; 3 nonaward winners

<sup>d</sup> 0 award winners; 0 nonaward winners

**Summaries:** A summary is defined as a recapitulation of the important points made in a film.

There are no summaries overtly directed to the viewer.

Four award winners and two nonaward winners have summaries covertly directed to the audience. Award winners have a frequency of 53 and nonaward winners 28 (Table 53).

Award winners have a greater percentage of summaries in entire films, film bodies and film closings.
**TABLE 53**

**SUMMARIES (COVERT VIEWER COMMUNICATION)**

<table>
<thead>
<tr>
<th></th>
<th>Entire Films</th>
<th>Openings</th>
<th>*Bodies</th>
<th>Closings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award winners</td>
<td>56%</td>
<td>0</td>
<td>100%</td>
<td>51%</td>
</tr>
<tr>
<td>Nonaward winners</td>
<td>44%</td>
<td>0</td>
<td>0</td>
<td>49%</td>
</tr>
</tbody>
</table>

*represents at least a 20% difference in normalized units between award winners and nonaward winners

4 award winners; 2 nonaward winners

0 award winners; 0 nonaward winners

2 award winners

3 award winners; 2 nonaward winners

One award winner and one nonaward winner have a summary when communication is not directed to the viewer. The award winner's summary is only in the film body with a frequency of 5. The nonaward winners summaries are in the film body and film closing with a frequency of 11.

**Research Question 3i:** What are the descriptive differences in the way award winners and nonaward winners use attention-directing devices such as sound effects, graphics, and optical effects?

**Sound Effects: Cognitive Sound Effects** - A sound effect was coded as cognitive if it represented, underscored, or reinforced the visual impact or provided the principal cue to its meaning. Cognitive sound effects were coded as real or contrived. Examples of real cognitive sound effects include emergency vehicle
sirens, squeaky doors and heart sounds from a monitor. Examples of contrived cognitive sound effects include simulated bells for an ambulance siren, simulated sounds made by animated tally marks and a simulated tone to represent every time a research kitten hit a certain obstacle.

Award winners have a frequency of 254 real cognitive sound effects and nonaward winners have a frequency of 35 (Table 54).

<table>
<thead>
<tr>
<th>TABLE 54</th>
<th>REAL COGNITIVE SOUND EFFECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>*Entire films^a</td>
</tr>
<tr>
<td>Award winners</td>
<td>86%</td>
</tr>
<tr>
<td>Nonaward winners</td>
<td>14%</td>
</tr>
</tbody>
</table>

*represents at least a 20% difference in normalized units between award winners and nonaward winners

^a 8 award winners; 6 nonaward winners
^b 2 award winners; 2 nonaward winners
^c 8 award winners; 6 nonaward winners
^d 8 award winners; 6 nonaward winners

Award winners have a greater percentage of real cognitive sound effects than nonaward winners in entire films, film bodies and film closings. Nonaward winners have a greater percentage of real cognitive sound effects than award winners in film openings.
Contrived cognitive sound effects occur in award winners with a frequency of 93 and nonaward winners with a frequency of 10 (Table 55).

<table>
<thead>
<tr>
<th></th>
<th>*Entire Films&lt;sup&gt;a&lt;/sup&gt;</th>
<th>*Openings&lt;sup&gt;b&lt;/sup&gt;</th>
<th>*Bodies&lt;sup&gt;c&lt;/sup&gt;</th>
<th>Closings&lt;sup&gt;d&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award winners</td>
<td>90%</td>
<td>100%</td>
<td>100%</td>
<td>42%</td>
</tr>
<tr>
<td>Nonaward winners</td>
<td>10%</td>
<td>0</td>
<td>0</td>
<td>58%</td>
</tr>
</tbody>
</table>

*represents at least a 20% difference in normalized units between award winners and nonaward winners
<sup>a</sup> 4 award winners; 1 nonaward winner
<sup>b</sup> 1 award winner
<sup>c</sup> 4 award winners
<sup>d</sup> 1 award winner; 1 nonaward winner

Award winners have a greater percentage of contrived cognitive sound effects than nonaward winners in entire films, film openings and bodies. Nonaward winners have a greater percentage than award winners in film closings.

**Affective Sound Effects:** Sound effects were coded as affective if the sounds were designed to stimulate a feeling or to establish or express a mood.

Affective sound effects were coded as real or contrived. Examples of real affective sound effects include: an exaggerated ticking of a clock to represent the futility of trying to hold
time still, doors slamming shut loudly to represent the emotional jar from the loss of opportunities, and car horns honking uncontrollably to underscore impatience. Examples of contrived affective sound effects include: a distorted voice echo from a tombstone to heighten suspense, notes by a brass ensemble to depict danger at the scene of an accident, simulated sounds of a car running out of gas and the actor's frustration, guitar plucks to represent a discouraged mood, simulated heart beat by brass to establish a serious mood, sound of a "death rattle" prior to a victim being hit by a car, and a bell ringing to symbolize a happy feeling.

**Real Affective Sound Effects:** Award winners use real affective sound effects with a frequency of 7 and nonaward winners with a frequency of 11 (Table 56).

<table>
<thead>
<tr>
<th></th>
<th><em>Entire films</em></th>
<th>Openings</th>
<th><em>Bodies</em></th>
<th><em>Closings</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>Award winners</td>
<td>28%</td>
<td>0</td>
<td>31%</td>
<td>0</td>
</tr>
<tr>
<td>Nonaward winners</td>
<td>72%</td>
<td>0</td>
<td>69%</td>
<td>100%</td>
</tr>
</tbody>
</table>

*represents at least a 20% difference in normalized units between award winners and nonaward winners

a^2 award winners; 3 nonaward winners
b^0 award winners; 0 nonaward winners
c^2 award winners; 3 nonaward winners
d^0 award winners; 1 nonaward winner
Nonaward winners have a greater percentage of use of real affective sound effects in entire films, film bodies and closings. However, the film closings are only represented by N=1.

Award winners and nonaward winners do not use real affective sound effects in film openings.

Contrived Affective Sound Effects: Award winners have a frequency of 83 for contrived affective sound effects and nonaward winners have 18 (Table 57).

<table>
<thead>
<tr>
<th></th>
<th>*Entire films</th>
<th>*Openings</th>
<th>*Bodies</th>
<th>*Closings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award winners</td>
<td>83%</td>
<td>92%</td>
<td>82%</td>
<td>100%</td>
</tr>
<tr>
<td>Nonaward winners</td>
<td>17%</td>
<td>8%</td>
<td>18%</td>
<td>0</td>
</tr>
</tbody>
</table>

*represents at least a 20% difference in normalized units between award winners and nonaward winners

a 3 award winners; 2 nonaward winners
b 1 award winner; 1 nonaward winner
c 3 award winners; 2 nonaward winners
d 1 award winner

Award winners have a consistently higher use of contrived affective sound effects when compared to nonaward winners. However, the film closings are only represented by N=1.

General Background Sound Effects: If sound effects are not cognitive or affective, they were coded as general background
effects. Examples include: street noises, room noises and actor noises while moving.

Award winners have a frequency of 464 for general background sound effects and nonaward winners have a frequency of 724 (Table 58).

<table>
<thead>
<tr>
<th>TABLE 58</th>
<th>GENERAL BACKGROUND SOUND EFFECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><em>Entire films</em></td>
</tr>
<tr>
<td>Award winners</td>
<td>28%</td>
</tr>
<tr>
<td>Nonaward winners</td>
<td>72%</td>
</tr>
</tbody>
</table>

*represents at least a 20% difference in normalized units between award winners and nonaward winners

a 7 award winners; 7 nonaward winners
b 2 award winners; 3 nonaward winners
c 7 award winners; 7 nonaward winners
d 1 award winner; 2 nonaward winners

Award winners have a greater percentage of general background sound effects than nonaward winners in film closings.

Nonaward winners have a greater percentage of general background sound effects than award winners in entire films, film openings and film bodies.

Graphics - Symbols: Graphic symbols are present in award winners with a frequency of 121 and nonaward winners, 108 (Table 59).

Award winners have a higher percentage of symbols in film openings than nonaward winners. Nonaward winners have a
higher percentage of symbols in entire films, film bodies and film closings than award winners.

**Graphics - Graphs and Charts:** The frequency for graphs and charts in award winners is 7 and nonaward winners, 8. One award winner and two nonaward winners used graphs or charts (Table 60).

<table>
<thead>
<tr>
<th></th>
<th>*Entire films&lt;sup&gt;a&lt;/sup&gt;</th>
<th>*Openings&lt;sup&gt;b&lt;/sup&gt;</th>
<th>*Bodies&lt;sup&gt;c&lt;/sup&gt;</th>
<th>*Closings&lt;sup&gt;d&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award winners</td>
<td>32%</td>
<td>93%</td>
<td>32%</td>
<td>16%</td>
</tr>
<tr>
<td>Nonaward winners</td>
<td>68%</td>
<td>7%</td>
<td>68%</td>
<td>84%</td>
</tr>
</tbody>
</table>

*represents at least a 20% difference in normalized units between award winners and nonaward winners

<sup>a</sup>6 award winners; 4 nonaward winners  
<sup>b</sup>4 award winners; 1 nonaward winner  
<sup>c</sup>3 award winners; 1 nonaward winner  
<sup>d</sup>2 award winners; 3 nonaward winners

Nonaward winners have a higher percentage of graphs and charts in entire films, bodies and closings than award winners.

**Graphics - Numbers and Letters:** Award winners have a frequency of 241 for numbers and letters and nonaward winners have a frequency of 121 (Table 61).
### TABLE 60
**GRAPHICS: GRAPHS AND CHARTS**

<table>
<thead>
<tr>
<th></th>
<th><em>Entire films</em></th>
<th>Openings</th>
<th>Bodies</th>
<th><em>Closings</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>Award winners</td>
<td>37%</td>
<td>0</td>
<td>42%</td>
<td>0</td>
</tr>
<tr>
<td>Nonaward winners</td>
<td>63%</td>
<td>0</td>
<td>58%</td>
<td>100%</td>
</tr>
</tbody>
</table>

*represents at least a 20% difference in normalized units between award winners and nonaward winners

1. 1 award winner; 2 nonaward winners
2. 0 award winner; 0 nonaward winner
3. 1 award winner; 1 nonaward winner
4. 0 award winner; 2 nonaward winners

### TABLE 61
**GRAPHICS: NUMBERS AND LETTERS**

<table>
<thead>
<tr>
<th></th>
<th>Entire films</th>
<th>Openings</th>
<th><em>Bodies</em></th>
<th><em>Closings</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>Award winners</td>
<td>55%</td>
<td>56%</td>
<td>69%</td>
<td>32%</td>
</tr>
<tr>
<td>Nonaward winners</td>
<td>45%</td>
<td>44%</td>
<td>31%</td>
<td>68%</td>
</tr>
</tbody>
</table>

*represents at least a 20% difference in normalized units between award winners and nonaward winners

1. 6 award winners; 8 nonaward winners
2. 6 award winners; 5 nonaward winners
3. 5 award winners; 3 nonaward winners
4. 6 award winners; 8 nonaward winners

Award winners have a higher percentage of numbers and letters in entire films, film openings and film bodies, while nonaward winners have a higher percentage in film closings.
Graphics - Arrows and Direction Indicators: Award winners have a frequency of 12 for arrows and direction indicators and nonaward winners have a frequency of 10. One award winner and two nonaward winners use direction indicators (Table 62).

Award winners have a higher percentage of arrows and direction indicators in film openings and nonaward winners have a higher percentage in entire films and film bodies.

Graphics - Realistic Illustrations and Drawings: Award winners have a frequency of 136 for realistic illustrations and drawings and nonaward winners have a frequency of 175 (Table 63).

<table>
<thead>
<tr>
<th></th>
<th>*Entire films</th>
<th>*Openings</th>
<th>*Bodies</th>
<th>Closings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award winners</td>
<td>39%</td>
<td>100%</td>
<td>33%</td>
<td>0</td>
</tr>
<tr>
<td>Nonaward winners</td>
<td>61%</td>
<td>0</td>
<td>67%</td>
<td>0</td>
</tr>
</tbody>
</table>

*a*represents at least a 20% difference in normalized units between award winners and nonaward winners

| a | 1 award winner; 2 nonaward winners |
| b | 1 award winner                      |
| c | 1 award winner; 2 nonaward winners  |
| d | 0 award winner; 0 nonaward winner   |
TABLE 63
GRAPHICS: REALISTIC ILLUSTRATIONS AND DRAWINGS

<table>
<thead>
<tr>
<th></th>
<th>*Entire films</th>
<th>Openings</th>
<th>*Bodies</th>
<th>*Closings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award winners</td>
<td>24%</td>
<td>52%</td>
<td>25%</td>
<td>17%</td>
</tr>
<tr>
<td>Nonaward winners</td>
<td>76%</td>
<td>48%</td>
<td>75%</td>
<td>83%</td>
</tr>
</tbody>
</table>

*represents at least a 20% difference in normalized units between award winners and nonaward winners

2 award winners; 3 nonaward winners
1 award winner; 1 nonaward winner
2 award winners; 3 nonaward winners
1 award winner; 1 nonaward winner

Award winners have a higher percentage of realistic illustrations and drawings in film openings; nonaward winners have a higher percentage in entire films, film bodies and film closings.

Graphics - Still Graphics: Award winners have a frequency of 51 and nonaward winners 103 (Table 64).

TABLE 64
STILL GRAPHICS

<table>
<thead>
<tr>
<th></th>
<th>*Entire films</th>
<th>Openings</th>
<th>*Bodies</th>
<th>*Closings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award winners</td>
<td>21%</td>
<td>45%</td>
<td>14%</td>
<td>16%</td>
</tr>
<tr>
<td>Nonaward winners</td>
<td>79%</td>
<td>55%</td>
<td>86%</td>
<td>84%</td>
</tr>
</tbody>
</table>

*represents at least a 20% difference in normalized units between award winners and nonaward winners

4 award winners; 8 nonaward winners
3 award winners; 4 nonaward winners
3 award winners; 4 nonaward winners
3 award winners; 7 nonaward winners
Nonaward winners consistently have higher percentages of still graphics than award winners.

**Graphics - Animated Graphics:** Award winners have a frequency of 349 for animated graphics and nonaward winners have a frequency of 169 (Table 65).

<table>
<thead>
<tr>
<th></th>
<th>Entire films</th>
<th>Openings</th>
<th>Bodies</th>
<th>Closings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award winners</td>
<td>56%</td>
<td>79%</td>
<td>60%</td>
<td>31%</td>
</tr>
<tr>
<td>Nonaward winners</td>
<td>44%</td>
<td>21%</td>
<td>40%</td>
<td>69%</td>
</tr>
</tbody>
</table>

*represents at least a 20% difference in normalized units between award winners and nonaward winners

- a: 4 award winners; 7 nonaward winners
- b: 4 award winners; 3 nonaward winners
- c: 4 award winners; 2 nonaward winners
- d: 3 award winners; 4 nonaward winners

Award winners have higher percentages of animated graphics in entire films, film openings and film bodies; nonaward winners have a higher percentage in film closings.

**Graphics - Cartoons:** Three award winners and one non-award winner have cartoons. One of the three award winners is an 11 minute totally animated cartoon. The frequency for cartoons is 168 for award winners and 2 for nonaward winners (Table 66).
TABLE 66
GRAPHICS: CARTOONS

<table>
<thead>
<tr>
<th></th>
<th>Entire films</th>
<th>*Openings</th>
<th>*Bodies</th>
<th>*Closings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award winners</td>
<td>99%</td>
<td>100%</td>
<td>99%</td>
<td>100%</td>
</tr>
<tr>
<td>Nonaward winners</td>
<td>1%</td>
<td>0</td>
<td>1%</td>
<td>0</td>
</tr>
</tbody>
</table>

*represents at least a 20% difference in normalized units between award winners and nonaward winners

a 3 award winners; 1 nonaward winner
b 1 award winner
c 3 award winners; 1 nonaward winner
d 2 award winners

Award winners consistently dominate the percentages for cartoons in entire films, film openings, bodies and closings.

Optical Effects - Dissolves: Award winners have a frequency of 40 for dissolves and nonaward winners have a frequency of 74 (Table 67)

Award winners have a higher percentage of dissolves in film closings. Nonaward winners have a higher percentage of dissolves in entire films, film openings and film bodies.

Optical Effects - Freeze Frame: Award winners have a frequency of 12 for freeze frames and nonaward winners have a frequency of 42 (Table 68).

Nonaward winners have consistently higher percentages of freeze frames in entire films, film openings, film bodies and film closings.
### Table 67
**Optical Effects: Dissolves**

<table>
<thead>
<tr>
<th></th>
<th><em>Entire films</em>&lt;sup&gt;a&lt;/sup&gt;</th>
<th><em>Openings</em>&lt;sup&gt;b&lt;/sup&gt;</th>
<th><em>Bodies</em>&lt;sup&gt;c&lt;/sup&gt;</th>
<th>Closings&lt;sup&gt;d&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award winners</td>
<td>31%</td>
<td>14%</td>
<td>28%</td>
<td>57%</td>
</tr>
<tr>
<td>Nonaward winners</td>
<td>69%</td>
<td>86%</td>
<td>72%</td>
<td>43%</td>
</tr>
</tbody>
</table>

* represents at least a 20% difference in normalized units between award winners and nonaward winners

<sup>a</sup> 5 award winners; 6 nonaward winners
<sup>b</sup> 1 award winner; 5 nonaward winners
<sup>c</sup> 5 award winners; 5 nonaward winners
<sup>d</sup> 2 award winners; 2 nonaward winners

### Table 68
**Optical Effects: Freeze Frame**

<table>
<thead>
<tr>
<th></th>
<th><em>Entire films</em>&lt;sup&gt;a&lt;/sup&gt;</th>
<th><em>Openings</em>&lt;sup&gt;b&lt;/sup&gt;</th>
<th><em>Bodies</em>&lt;sup&gt;c&lt;/sup&gt;</th>
<th><em>Closings</em>&lt;sup&gt;d&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award winners</td>
<td>14%</td>
<td>0</td>
<td>10%</td>
<td>32%</td>
</tr>
<tr>
<td>Nonaward winners</td>
<td>86%</td>
<td>100%</td>
<td>90%</td>
<td>68%</td>
</tr>
</tbody>
</table>

* represents at least a 20% difference in normalized units between award winners and nonaward winners

<sup>a</sup> 3 award winners; 3 nonaward winners
<sup>b</sup> 0 award winners; 1 nonaward winner
<sup>c</sup> 2 award winners; 2 nonaward winners
<sup>d</sup> 1 award winner; 3 nonaward winners

**Optical Effects - Still Image:** This variable represents a real image that is still, similar to a 35 mm slide or a single photograph. It differs from a freeze frame in that it was never shown in motion.
Award winners have a frequency of 31 for still images and nonaward winners have a frequency of 48 (Table 69).

TABLE 69
OPTICAL EFFECTS: STILL IMAGES

<table>
<thead>
<tr>
<th></th>
<th>*Entire films&lt;sup&gt;a&lt;/sup&gt;</th>
<th>*Openings&lt;sup&gt;b&lt;/sup&gt;</th>
<th>*Bodies&lt;sup&gt;c&lt;/sup&gt;</th>
<th>*Closings&lt;sup&gt;d&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award winners</td>
<td>21%</td>
<td>20%</td>
<td>22%</td>
<td>0</td>
</tr>
<tr>
<td>Nonaward winners</td>
<td>79%</td>
<td>80%</td>
<td>78%</td>
<td>100%</td>
</tr>
</tbody>
</table>

*represents at least a 20% difference in normalized units between award winners and nonaward winners

<sup>a</sup>2 award winners; 2 nonaward winners

<sup>b</sup>1 award winner; 1 nonaward winner

<sup>c</sup>2 award winners; 2 nonaward winners

<sup>d</sup>0 award winner; 1 nonaward winner

Nonaward winners consistently have the highest percentages of still images in entire films, film openings, film bodies and film closings.

Optical Effects - Fades: Award winners' frequency for fades is 35 and nonaward winners; frequency is 12 (Table 70).

Award winners have higher percentages of fades in entire films, film openings and film bodies while nonaward winners have a higher percentage of fades in film closings.

Of the total number of fades by all films 4 are fade-ins and 34 are fade-outs.
TABLE 70
OPTICAL EFFECTS: FADES

<table>
<thead>
<tr>
<th></th>
<th>*Entire films a</th>
<th>*Openings b</th>
<th>*Bodies c</th>
<th>*Closings d</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award winners</td>
<td>70%</td>
<td>100%</td>
<td>82%</td>
<td>38%</td>
</tr>
<tr>
<td>Nonaward winners</td>
<td>30%</td>
<td>0</td>
<td>18%</td>
<td>62%</td>
</tr>
</tbody>
</table>

*represents at least a 20% difference in normalized units between award winners and nonaward winners

a8 award winners; 7 nonaward winners
b3 award winners
c4 award winners; 2 nonaward winners
d6 award winners; 6 nonaward winners

Optical Effects - Double Exposure: Double exposures occur only in the bodies of two award winning films with a frequency of 3.

Optical Effects - Superimposition: Award winners have a frequency of 175 for superimpositions and nonaward winners have a frequency of 73 (Table 71).

Award winners have higher percentages of superimpositions in entire films, film openings and film bodies while nonaward winners have higher percentages in film closings.

Optical Effects - Miscellaneous: Slow Motion - two award winners use slow motion in film bodies for a frequency of 32. Fast Motion - fast motion is built into the subscript coding for graphics but does not occur in any films. Swish pan - one nonaward winner uses swish pans in the film opening for a frequency
of 11. Focus Shift - focus shifts are used by one nonaward winner in the film body for a frequency of 19. One nonaward winner uses wipes in the film body for a frequency of 2. Triple Exposure - one award winner uses triple exposures in the film body for a frequency of 15. Fish-eye Optics - one nonaward winner uses a fish-eye optical system in the film body for a frequency of 10.

<table>
<thead>
<tr>
<th>TABLE 71</th>
<th>OPTICAL EFFECTS: SUPERIMPOSITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entire films</td>
<td>*Openings</td>
</tr>
<tr>
<td>Award winners</td>
<td>57%</td>
</tr>
<tr>
<td>Nonaward winners</td>
<td>43%</td>
</tr>
</tbody>
</table>

*represents at least a 20% difference in normalized units between award winners and nonaward winners

6 award winners; 6 nonaward winners

6 award winners; 4 nonaward winners

5 award winners; 3 nonaward winners

4 award winners; 5 nonaward winners

Research Question 4a: What are the descriptive differences in the use of ethos, pathos, logos, and threat appeals between award winners and nonaward winners?

**Ethos**: Ethos is defined as a persuasive appeal that concentrated on the attractiveness and credibility of the source. Examples of ethos include a host narrator who is an actor in a medical television series and persons who are identified as important by title and profession.
Ethos is not employed by award winners or nonaward winners when communication is overtly directed to the viewer.

Ethos is employed by nonaward winners when communication is covertly directed to the viewer. Two nonaward winners use ethos in film openings, film bodies and film closings for a total frequency of 176.

Ethos is also employed by nonaward winners when communication is not directed to the viewer. Two films use ethos in the film bodies for a frequency of 54.

Logos: Logos is a persuasive appeal that uses logical argument and deduction. There are numerous examples of logos in both award winners and nonaward winners. A typical example is "Cardiopulmonary Resuscitation is a must for all parents because . . . ."

Neither award winners, nor nonaward winners use logos when communication is overtly directed to the viewer.

Award winners have a frequency of 109 for logos when communication is covertly directed to the viewer and nonaward winners have a frequency of 45 (Table 72).

Award winners have higher percentages of logos in entire films, film openings and film bodies. Nonaward winners have higher percentages of logos in film closings.
TABLE 72
LOGOS (COVERT VIEWER COMMUNICATION)

<table>
<thead>
<tr>
<th></th>
<th>*Entire films</th>
<th>*Openings</th>
<th>*Bodies</th>
<th>*Closings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award winners</td>
<td>61%</td>
<td>100%</td>
<td>62%</td>
<td>0</td>
</tr>
<tr>
<td>Nonaward winners</td>
<td>39%</td>
<td>0</td>
<td>38%</td>
<td>100%</td>
</tr>
</tbody>
</table>

*represents at least a 20% difference in normalized units between award winners and nonaward winners

3 award winners; 3 nonaward winners
1 award winner
3 award winners; 3 nonaward winners
1 nonaward winner

When communication is not directed to the viewer, non-award winners have higher percentages of logos. The frequency for award winners is 26 and for nonaward winners 214 (Table 73).

TABLE 73
LOGOS (COMMUNICATION NOT VIEWER DIRECTED)

<table>
<thead>
<tr>
<th></th>
<th>*Entire films</th>
<th>Openings</th>
<th>*Bodies</th>
<th>*Closings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award winners</td>
<td>15%</td>
<td>0</td>
<td>16%</td>
<td>0</td>
</tr>
<tr>
<td>Nonaward winners</td>
<td>85%</td>
<td>0</td>
<td>84%</td>
<td>100%</td>
</tr>
</tbody>
</table>

*represents at least a 20% difference in normalized units between award winners and nonaward winners

2 award winners; 3 nonaward winners
0 award winners; 0 nonaward winners
2 award winners; 3 nonaward winners
0 award winners; 1 nonaward winner
Nonaward winners have higher percentages of logos in entire films, film bodies and film closings when there is no direct communication with the viewer.

**Pathos:** Pathos is a persuasive appeal to feelings, values and emotions; it attempts to put the receiver in a specified mood while receiving the message. Many films try to get the viewer to feel what the central character is feeling. Songs with emotion-laden words, subdued and "upbeat" music, bright colors, and close identification with the character are examples of pathos.

Pathos is not employed as a technique by award winners or nonaward winners when communication is overtly directed to the viewer.

When communication is covertly directed to the viewer, award winners have a frequency of 280 for pathos and nonaward winners have a frequency of 143 (Table 74).

Award winners have a higher percentage of pathos in entire films, film openings, film bodies and film closings when communication is directed covertly to the viewer.

When communication is not directed to the viewer, award winners have a frequency of 105 for pathos and nonaward winners have a frequency of 359 (Table 75).
Table 74

**PATHOS (COVERT VIEWER COMMUNICATION)**

<table>
<thead>
<tr>
<th></th>
<th>Entire films</th>
<th>Openings</th>
<th>Bodies</th>
<th>*Closings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award winners</td>
<td>53%</td>
<td>51%</td>
<td>52%</td>
<td>100%</td>
</tr>
<tr>
<td>Nonaward winners</td>
<td>47%</td>
<td>49%</td>
<td>48%</td>
<td>0</td>
</tr>
</tbody>
</table>

*represents at least a difference of 20% of normalized units between award winners and nonaward winners

a4 award winners; 3 nonaward winners
b2 award winners; 2 nonaward winners
c3 award winners; 2 nonaward winners
d4 award winners

Table 75

**PATHOS (COMMUNICATION NOT VIEWER DIRECTED)**

<table>
<thead>
<tr>
<th></th>
<th>*Entire films</th>
<th>*Openings</th>
<th>*Bodies</th>
<th>*Closings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award winners</td>
<td>15%</td>
<td>70%</td>
<td>16%</td>
<td>0</td>
</tr>
<tr>
<td>Nonaward winners</td>
<td>85%</td>
<td>30%</td>
<td>84%</td>
<td>100%</td>
</tr>
</tbody>
</table>

*represents at least a 20% difference in normalized units between award winners and nonaward winners

a5 award winners; 5 nonaward winners
b1 award winner; 1 nonaward winner
c5 award winners; 5 nonaward winners
d0 award winners; 1 nonaward winner

Award winners have a higher percentage of pathos in film openings when communication is not directed to the viewer.

Nonaward winners have a higher percentage of pathos in entire films, film bodies and film closings when communication is not directed to the viewer.
Threat Appeal: Threat appeal is a persuasive communication appeal which alludes to or describes unfavorable consequences. The consequences may be alleged to result from failure to adopt and adhere to the communicator's conclusions. Examples of threat include hearts that stop beating, persons out of control of their own emotions and behavior, descriptions of rape, fist-fights, shootings, and autopsy results.

One award winner uses threat as the only persuasive technique overtly directed to the audience. It is used in the film body with a total frequency of 1.

When communication is covertly directed to the viewer, award winners have a frequency of 141 for threat appeal, and non-award winners have a frequency of 22 (Table 76).

TABLE 76
THREAT APPEAL (COVERT VIEWER COMMUNICATION)

<table>
<thead>
<tr>
<th></th>
<th>*Entire films</th>
<th>*Openings</th>
<th>*Bodies</th>
<th>*Closings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award winners</td>
<td>91%</td>
<td>12%</td>
<td>96%</td>
<td>100%</td>
</tr>
<tr>
<td>Nonaward winners</td>
<td>9%</td>
<td>88%</td>
<td>4%</td>
<td>0</td>
</tr>
</tbody>
</table>

*represents at least 20% difference in normalized units between award winners and nonaward winners

a4 award winners; 3 nonaward winners

b1 award winner; 2 nonaward winners

c2 award winners; 1 nonaward winner

d1 award winner
Award winners had higher percentages of threat appeal in entire films, film bodies and film closings when communication is covertly directed to the viewer. Nonaward winners have a higher percentage of threat appeal in the film openings when communication is covertly directed to the viewer.

When communication is not directed to the viewer, award winners have a frequency of 16 for threat appeal and nonaward winners have a frequency of 183 (Table 77).

<table>
<thead>
<tr>
<th></th>
<th>*Entire films</th>
<th>*Openings</th>
<th>*Bodies</th>
<th>*Closings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award winners</td>
<td>5%</td>
<td>0</td>
<td>5%</td>
<td>0</td>
</tr>
<tr>
<td>Nonaward winners</td>
<td>95%</td>
<td>100%</td>
<td>95%</td>
<td>100%</td>
</tr>
</tbody>
</table>

*represents at least a 20% difference in normalized units between award winners and nonaward winners

2 award winners; 3 nonaward winners

0 award winners; 1 nonaward winner

2 award winners; 3 nonaward winners

0 award winners; 1 nonaward winner

Nonaward winners consistently have higher percentages of threat appeals in entire films, film openings, film bodies and film closings when communication is not directed to the viewer.

Research Question 4b: What are the descriptive differences in use of explicit conclusions between award winners and nonaward winners?
Explicit conclusions are defined as an explicit statement of the desired cognitive, affective, or behavioral change resulting from the communication. Some films in summary fashion, outline the behavioral changes expected at the end of the film. One film indicates that a viewer with certain symptoms should seek help. The avenues for help are revealed and described.

Award winners and nonaward winners do not use explicit conclusions when communication is overtly directed to the viewer.

When communication is covertly directed to the viewer, award winners have a frequency of 46 for explicit conclusions and nonaward winners have a frequency of 105 (Table 78).

**TABLE 78**

<table>
<thead>
<tr>
<th></th>
<th>Entire films</th>
<th>Openings</th>
<th>Bodies</th>
<th>Closings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Award winners</td>
<td>22%</td>
<td>0</td>
<td>12%</td>
<td>43%</td>
</tr>
<tr>
<td>Nonaward winners</td>
<td>78%</td>
<td>100%</td>
<td>88%</td>
<td>57%</td>
</tr>
</tbody>
</table>

*represents at least a 20% difference in normalized units between award winners and nonaward winners

\(^a\) 2 award winners; 2 nonaward winners

\(^b\) 0 award winners; 1 nonaward winner

\(^c\) 1 award winner; 2 nonaward winners

\(^d\) 2 award winners; 2 nonaward winners

Nonaward winners consistently have higher percentages of explicit conclusions when communication is covertly directed to the viewer.
When communication is not directed to the viewer, non-award winners have the only use of explicit conclusion with a frequency of 14. Two nonaward winners have explicit conclusions in film bodies.

**Coding Time:** The investigator listed the number of hours needed to code each film. The average time to code one minute of award winners was 18.8 minutes with a range from 11.6 minutes to 25.9 minutes. The average time to code one minute of nonaward winners was 14.7 minutes with a range from 8.1 minutes to 18 minutes.

The investigator observed that award winners, in general, tended to challenge the whole coding system more than nonaward winners: repetitive patterns were not as obvious and new behaviors seemed to emerge in each new scene. It took the investigator more multiple viewings of given 5-second intervals to capture the variables in award winners. There appeared to be a richness of variables that required more attentiveness by the investigator. Even during the coding of the last award winner, subscript codes had to be altered to accommodate the variety of variables.

In addition to OSIA IV coding, the Educational Film Library Association (EFLA) and the Council on International Non-theatrical Events (CINE) were contacted to determine whether Chris Award winners and nonaward winners in Health, Medicine, and Safety
during 1974-1977 entered and received awards in their respective festivals. The criteria for judging each festival differed and the results are listed in Appendix Q. Eight award winners had been entered either in EFLA or CINE and four received awards. Seven nonaward winners entered either EFLA or CINE and two received awards.

In addition, Landers Film Reviews was contacted to determine whether Landers Associates reviewed and recommended any of the award winners or nonaward winners. Four award winners were reviewed by Landers and one was recommended. Three nonaward winners were reviewed by Landers and two were recommended.

SUMMARY

Descriptively, award winners are longer than nonaward winners and have fewer scene changes, major events and minor events per minute. Award winners have longer opening and closing times.

Award winners and nonaward winners use central characters equally in terms of percent of film time. However, nonaward winners use secondary characters more than award winners. Award winners use the actor category "other" more than nonaward winners.

Nonaward winners have more interaction between central and secondary characters than award winners. Award winners have more interaction between "other" and actors.
Overall, nonaward winners' characters engage in more instructional behaviors and communication moves per film than award winners.

Table 79 summarizes the instructional behaviors in which there is a 2:1 difference between award winners and nonaward winners.

Award winners' central characters primarily "sense", "manipulate artifacts", and "respond". Nonaward winners' central characters primarily "initiate" and "solicit".

Award winners' secondary characters "initiate". Nonaward winners' secondary characters "sense", "manipulate artifacts", "respond", "solicit", "use personal negative judgment" and "initiate" and "respond" in unison.

Differences in actors' use of "initiates" are higher for award winners' secondary characters and "other". Nonaward winners' central characters have higher differences of "initiates" than award winners.

Table 80 summarizes actor time by strategy.

Award winners' central and secondary characters engage more in direct communication, while nonaward winners' central and secondary characters engage in more interaction.

Award winners "other" is associated more with direct and interactive communication than nonaward winners.
### TABLE 79

**SUMMARY OF INSTRUCTIONAL BEHAVIORS BY SOURCE: 2:1 RATIO DIFFERENCES BETWEEN AWARD WINNERS AND NONAWARD WINNERS**

<table>
<thead>
<tr>
<th></th>
<th>Manipulates</th>
<th>Judges</th>
<th>Acknowledges</th>
<th>Judges</th>
<th>Personnow</th>
<th>Judges</th>
<th>Personnow</th>
<th>UNISON</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Thinks</td>
<td>Senses</td>
<td>Solicits</td>
<td>Solicits</td>
<td>personification</td>
<td>Solicits</td>
<td>personification</td>
<td>Solicits</td>
</tr>
<tr>
<td>judges</td>
<td>portions</td>
<td>responds</td>
<td>Solicities</td>
<td>Solicities</td>
<td>positiveness</td>
<td>responds</td>
<td>positiveness</td>
<td>responds</td>
</tr>
<tr>
<td>Judges</td>
<td>Per-</td>
<td>Now-</td>
<td>In-</td>
<td>Pos-</td>
<td>Re-</td>
<td>Post-</td>
<td>Re-</td>
<td></td>
</tr>
<tr>
<td>Tant</td>
<td>x</td>
<td>Now-</td>
<td>Now-</td>
<td>Now-</td>
<td>Now-</td>
<td>Now-</td>
<td>Now-</td>
<td></td>
</tr>
<tr>
<td>ment</td>
<td>ment</td>
<td>ment</td>
<td>ment</td>
<td>ment</td>
<td>ment</td>
<td>ment</td>
<td>ment</td>
<td></td>
</tr>
<tr>
<td>UNISON</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### CENTRAL CHARACTERS

<table>
<thead>
<tr>
<th></th>
<th>Entire Films</th>
<th>Openings</th>
<th>Bodies</th>
<th>Closings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>A</td>
<td>N</td>
<td>N</td>
</tr>
</tbody>
</table>

### SECONDARY CHARACTERS

<table>
<thead>
<tr>
<th></th>
<th>Entire Films</th>
<th>Openings</th>
<th>Bodies</th>
<th>Closings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
</tbody>
</table>

### OTHER

<table>
<thead>
<tr>
<th></th>
<th>Entire Films</th>
<th>Openings</th>
<th>Bodies</th>
<th>Closings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
<td>N</td>
<td>A</td>
<td>N</td>
</tr>
</tbody>
</table>

- **A**=represents at least a 2:1 higher difference by award winners
- **N**=represents at least a 2:1 higher difference by nonaward winners

---

265
TABLE 80
SUMMARY OF DIFFERENCES IN ACTOR TIME BY STRATEGY

<table>
<thead>
<tr>
<th></th>
<th>Central Characters</th>
<th>Secondary Characters</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Entire Films</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interactive</td>
<td>N</td>
<td></td>
<td>A</td>
</tr>
<tr>
<td>Independent</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Openings</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct</td>
<td>N</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interactive</td>
<td>N</td>
<td></td>
<td>A</td>
</tr>
<tr>
<td>Independent</td>
<td></td>
<td></td>
<td>N</td>
</tr>
<tr>
<td><strong>Bodies</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct</td>
<td>A</td>
<td></td>
<td>A</td>
</tr>
<tr>
<td>Interactive</td>
<td></td>
<td></td>
<td>A</td>
</tr>
<tr>
<td>Independent</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Closings</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Direct</td>
<td>A</td>
<td></td>
<td>A</td>
</tr>
<tr>
<td>Interactive</td>
<td>N</td>
<td></td>
<td>N</td>
</tr>
<tr>
<td>Independent</td>
<td></td>
<td></td>
<td>N</td>
</tr>
</tbody>
</table>

A=represents at least a 2:1 higher ratio difference by award winners
N=represents at least a 2:1 higher ratio difference by nonaward winners

Table 81 summarizes the 2:1 differences in climate variables between award winners and nonaward winners.

Climate variable analysis indicates that nonaward winners have more "indirect" behaviors in comparison to "direct" behaviors and more "clarification, acknowledgement" in comparison to "judgmental appraisal" than award winners.

Table 82 summarizes the 2:1 differences in interaction variables between award winners and nonaward winners.
### TABLE 81
SUMMARY OF DIFFERENCES IN CLIMATE VARIABLES

<table>
<thead>
<tr>
<th>Indirect/Direct</th>
<th>Central Characters</th>
<th>Secondary Characters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indirect/Direct in response or reaction</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Modified Indirect/Direct</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Modified Indirect/Direct in response</td>
<td></td>
<td></td>
</tr>
<tr>
<td>or reaction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clarification, acknowledgment/</td>
<td></td>
<td></td>
</tr>
<tr>
<td>judgmental appraisal</td>
<td></td>
<td>N</td>
</tr>
</tbody>
</table>

N = represents at least a 2:1 higher ratio difference by nonaward winners

### TABLE 82
SUMMARY OF DIFFERENCES IN INTERACTION VARIABLES

<table>
<thead>
<tr>
<th>Solicitation, Clarification/Response</th>
<th>Central Characters</th>
<th>Secondary Characters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solicitation, Clarification/Initiation</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Response/Initiation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Immediate Response/Response after silence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clarification/Solicitation in Reaction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clarification/Response and Initiation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>in Reaction</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>Clarification of response, appraisal of response</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Solicitation following response/</td>
<td></td>
<td></td>
</tr>
<tr>
<td>appraisal of response</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Responses/appraisal of responses</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A = represents at least a 2:1 higher ratio difference by award winners.

N = represents at least a 2:1 higher ratio difference by nonaward winners
Interaction variable analysis indicates that award winners have more "solicitation, clarification" in comparison to "response". Nonaward winners have more "solicitation, clarification" in comparison to "initiation", "response" in comparison to "initiation", "clarification" in comparison to "response" and "initiation in reaction and clarification of response" in comparison to "appraisal" of response.

Table 83 summarizes the 2:1 ratio differences on appraisal variables between award winners and nonaward winners.

TABLE 83
SUMMARY OF DIFFERENCES IN APPRAISAL VARIABLES

<table>
<thead>
<tr>
<th></th>
<th>Central Characters</th>
<th>Secondary Characters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acknowledgment/Judgmental Reactions</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td>Favorable Judgment/Unfavorable Judgment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Objective Criterion Judgment/Personal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Judgment/Initiation, Interactive</td>
<td>N</td>
<td>N</td>
</tr>
</tbody>
</table>

A=represents at least a 2:1 higher ratio difference by award winners.
N=represents at least a 2:1 higher ratio difference by nonaward winners.

Appraisal variable analysis indicates that nonaward winners' central characters have more "acknowledgment" in comparison to "judgmental reactions" and "objective criterion judgments" in comparison to "personal criterion judgments". Nonaward winners' secondary characters have more "objective criterion judgment" in
comparison to "personal criterion judgment" and more "judgment" in comparison to "initiation, interactive".

Award winners secondary characters have more "acknowledgment" in comparison to "judgmental" reactions.

Table 84 summarizes the differences in the variables of talk on the sound track.

**TABLE 84**
SUMMARY OF DIFFERENCES IN TALK ON THE SOUND TRACK

<table>
<thead>
<tr>
<th></th>
<th>Third Person</th>
<th>narration and overt</th>
<th>Person on-screen to Person off-screen</th>
<th>Person on-screen to Person off-screen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viewpoint</td>
<td>Third Person</td>
<td>Narration and overt</td>
<td>Person on-screen to Person off-screen</td>
<td>Person on-screen to Person off-screen</td>
</tr>
<tr>
<td></td>
<td>Third Person</td>
<td>Siloloquy</td>
<td>Person on-screen to Person off-screen</td>
<td>Person on-screen to Person off-screen</td>
</tr>
<tr>
<td></td>
<td>Entire film</td>
<td>A</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>Openings</td>
<td>A</td>
<td>A</td>
<td>N</td>
</tr>
<tr>
<td></td>
<td>Bodies</td>
<td>A</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>Closings</td>
<td>A</td>
<td>N</td>
<td>A</td>
</tr>
</tbody>
</table>

A=represents at least a 20% higher difference by award winners
N=represents at least a 20% higher difference by nonaward winners

Award winners, in comparison to nonaward winners, are characterized by third person narration, siloloquy, and a person on the screen talking to a person off the screen.

Nonaward winners, in comparison to award winners, are characterized by a person off the screen talking to a person on the screen.

Table 85 summarizes the differences in audiovisual dominance.
TABLE 85
SUMMARY OF DIFFERENCES IN AUDIOVISUAL DOMINANCE

<table>
<thead>
<tr>
<th></th>
<th>Audio Dominance</th>
<th>Visual Dominance</th>
<th>Audiovisual Dominance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entire film</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Openings</td>
<td></td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td>Bodies</td>
<td></td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Closings</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A=represents at least a 2:1 higher ratio difference by award winners
N=represents at least a 2:1 higher ratio difference by nonaward winners

Award winners have a higher percentage difference of visual dominance in film bodies while nonaward winners have a higher percentage of visual dominance in film openings.

Award winners have a higher percentage difference of audiovisual dominance in film openings.

Film designs employed by award winners are story plot, creative, and animation. Film designs employed by nonaward winners are story plot, documentary and dramatic.

Table 86 summarizes the differences in music variables.

TABLE 86
SUMMARY OF DIFFERENCES IN MUSIC VARIABLES

<table>
<thead>
<tr>
<th></th>
<th>Cognitive</th>
<th>Affective</th>
<th>General</th>
<th>Small Ensemble</th>
<th>Solo Instrumentation</th>
<th>Words</th>
<th>Music</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entire film</td>
<td>A</td>
<td>A</td>
<td>N</td>
<td>A</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Openings</td>
<td>A</td>
<td>A</td>
<td></td>
<td>A</td>
<td>N</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bodies</td>
<td>A</td>
<td>A</td>
<td>N</td>
<td>A</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Closings</td>
<td>A</td>
<td>A</td>
<td>N</td>
<td>A</td>
<td>N</td>
<td>N</td>
<td>A</td>
</tr>
</tbody>
</table>

A=represents at least a 2:1 higher difference by award winners
N=represents at least a 2:1 higher difference by nonaward winners
Music in award-winning films is characterized by the following differences when compared to nonaward winners: cognitive music, affective music and small ensembles.

Nonaward winners' music is characterized by the following differences when compared to award winners: general music, solo instrumentation, and words to the music.

Table 87 summarizes the differences in the color variables.

**TABLE 87**

**SUMMARY OF DIFFERENCES IN COLOR VARIABLES**

<table>
<thead>
<tr>
<th></th>
<th>Cognitive</th>
<th>Affective</th>
<th>General</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entire films</td>
<td>N</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Openings</td>
<td>N</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Bodies</td>
<td>N</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Closings</td>
<td>N</td>
<td></td>
<td>A</td>
</tr>
</tbody>
</table>

A=represents at least a 2:1 higher ratio difference by award winners
N=represents at least a 2:1 higher ratio difference by nonaward winners

Award winners are characterized by the use of affective color in film closings and general color in film openings when compared to nonaward winners.

Nonaward winners are characterized by the use of cognitive color in comparison to award winners.

Table 88 summarizes the differences in audience involvement variables.
TABLE 88  
SUMMARY OF DIFFERENCES IN AUDIENCE INVOLVEMENT

<table>
<thead>
<tr>
<th>Overt Viewer Communication</th>
<th>Covert Viewer Communication</th>
<th>No Viewer Communication</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Entire Films</strong></td>
<td>N¹</td>
<td>A¹</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Entire Films</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Openings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bodies</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>Closings</td>
<td>N</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Objective Camera Angle</th>
<th>Subjective Camera Angle</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entire Films</td>
<td></td>
</tr>
<tr>
<td>Openings</td>
<td>A</td>
</tr>
<tr>
<td>Bodies</td>
<td>A</td>
</tr>
<tr>
<td>Closings</td>
<td>A</td>
</tr>
</tbody>
</table>

A¹ = represents at least a 20% higher difference in normalized units by award winners
N¹ = represents at least a 20% higher difference in normalized units by nonaward winners
A = represents at least a 2:1 higher difference by award winners
N = represents at least a 2:1 higher difference by nonaward winners

Award winners communicate with the viewers more than non-award winners. The nature of award winners communication is covert, while nonaward winners is overt.

Award winners have more interaction in film bodies than nonaward winners, while nonaward winners have more interaction in film closings.
Award winners consistently use the subjective camera angle more than nonaward winners.

Table 89 summarizes the differences in introductions, summaries and pauses.

**TABLE 89**

**SUMMARY OF DIFFERENCES IN INTRODUCTIONS, SUMMARIES, PAUSES**

<table>
<thead>
<tr>
<th></th>
<th>Introductions</th>
<th>Summaries</th>
<th>Pauses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entire films</td>
<td>A</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>Openings</td>
<td>A</td>
<td>A</td>
<td>N</td>
</tr>
<tr>
<td>Bodies</td>
<td>A</td>
<td>A</td>
<td>N</td>
</tr>
<tr>
<td>Closings</td>
<td></td>
<td>N</td>
<td></td>
</tr>
</tbody>
</table>

A=represents at least a 2:1 higher ratio difference by award winners
N=represents at least a 2:1 higher ratio difference by nonaward winners

Award winners are characterized by the use of introductions and summaries in comparison to nonaward winners.

Nonaward winners are characterized by greater use of pauses in comparison to award winners.

Table 90 summaries the differences in sound effects.

**TABLE 90**

**SUMMARY OF DIFFERENCES IN SOUND EFFECTS**

<table>
<thead>
<tr>
<th>Real Cognitive Sound Effects</th>
<th>Contrived Sound Effects</th>
<th>Real Affective Sound Effects</th>
<th>Contrived Affective Sound Effects</th>
<th>General Background Sound Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entire films</td>
<td>A</td>
<td>A</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td>Openings</td>
<td>N</td>
<td>A</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td>Bodies</td>
<td>A</td>
<td>A</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td>Closings</td>
<td>A</td>
<td>N</td>
<td>A</td>
<td>A</td>
</tr>
</tbody>
</table>

A=represents at least a 2:1 higher difference by award winners
N=represents at least a 2:1 higher difference by nonaward winners
Award winners compared to nonaward winners are characterized by the use of real cognitive, contrived cognitive and contrived affective sound effects.

Nonaward winners when compared to award winners are characterized by the use of real affective and general background sound effects.

Table 91 summarizes the differences in graphics.

Award winners are characterized by the use of the following graphic techniques in comparison to nonaward winners: symbols (film openings), numbers and letters (film bodies), arrows and direction indicators (film openings), animated graphics (openings and bodies), and cartoons (entire films, openings, bodies, closings).

Nonaward winners are characterized by the following graphics in comparison to award winners: symbols (entire films, bodies, closings), graphs and charts (entire films, closings), numbers and letters (closings), arrows and direction indicators (entire films, bodies), realistic illustrations (entire films, bodies, closings), still graphics (entire films, bodies, closings) and animated graphics (closings).

Table 92 summarizes the differences in optical effects.

Award winners generally use fewer optical effects than nonaward winners.

Award winners display higher percentages of fades and superimpositions in comparison to nonaward winners.

Nonaward winners have higher percentages of dissolves, freeze frames and still images than award winners.
<table>
<thead>
<tr>
<th></th>
<th>Symbols</th>
<th>Graphs and Charts</th>
<th>Numbers and Letters</th>
<th>Arrows &amp; Direction Indicators</th>
<th>Realistic Illustrations</th>
<th>Still Graphics</th>
<th>Animated Graphics</th>
<th>Cartoons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entire Films</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td>Openings</td>
<td>A</td>
<td></td>
<td>A</td>
<td></td>
<td></td>
<td>A</td>
<td></td>
<td>A</td>
</tr>
<tr>
<td>Bodies</td>
<td>N</td>
<td>A</td>
<td>A</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>Closings</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>A</td>
</tr>
</tbody>
</table>

N=represents at least a 2:1 higher difference by award winners
A=represents at least a 2:1 higher difference by nonaward winners
TABLE 92
SUMMARY OF DIFFERENCES IN OPTICAL EFFECTS

<table>
<thead>
<tr>
<th></th>
<th>Freeze Frames</th>
<th>Still Images</th>
<th>Fades</th>
<th>Superimpositions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entire Films</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td>Openings</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td>Bodies</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>A</td>
</tr>
<tr>
<td>Closings</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
</tbody>
</table>

A=represents at least a 2:1 higher ratio difference by award winners
N=represents at least a 2:1 higher ratio difference by nonaward winners

Table 93 summarizes the differences in persuasive appeals.

Nonaward winners, in general, use more persuasive appeals than award winners.

Award winners are characterized by the following persuasive appeals in comparison to nonaward winners: logos with covert viewer communication (entire films, openings, bodies), pathos with covert viewer communication (film closings), pathos with no viewer communication (film openings), and threat with covert viewer communication (entire films, bodies and closings).

Nonaward winners are characterized by the following persuasive appeals in comparison to award winners: ethos with covert viewer communication (entire films, openings, bodies, closings), ethos with no viewer communication (entire films, bodies), logos with covert viewer communication (film closings), logos with no viewer communication (entire films, bodies, closings), pathos with no viewer communication (entire films, openings, bodies, closings).
communication (entire films, bodies, closings), threat with covert viewer communication (film openings), threat with no viewer communication (entire films, openings, bodies, closings), explicit conclusions with covert viewer communication (entire films, openings, bodies, closings), and explicit conclusions with no viewer communication (film bodies).

It appears that award winners use persuasive covert appeals selectively while nonaward winners use persuasive appeals in both covert viewer communication and no viewer communication situations.
### Summary of Persuasive Appeals

<table>
<thead>
<tr>
<th></th>
<th>Ethos (covert viewer communication)</th>
<th>Ethos (no viewer communication)</th>
<th>Logos (covert viewer communication)</th>
<th>Logos (no viewer communication)</th>
<th>Pathos (covert viewer communication)</th>
<th>Pathos (no viewer communication)</th>
<th>Threat (covert viewer communication)</th>
<th>Threat (no viewer communication)</th>
<th>Explicit Conclusions (covert communication)</th>
<th>Explicit Conclusions (no viewer communication)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entire Films</td>
<td>N</td>
<td>N</td>
<td>A</td>
<td>N</td>
<td>N</td>
<td>A</td>
<td>N</td>
<td>A</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Openings</td>
<td>N</td>
<td></td>
<td>A</td>
<td>N</td>
<td>N</td>
<td></td>
<td>N</td>
<td>A</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Bodies</td>
<td>N</td>
<td>N</td>
<td>A</td>
<td>N</td>
<td>N</td>
<td></td>
<td>N</td>
<td>A</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Closings</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>A</td>
<td>N</td>
<td></td>
<td>A</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
</tbody>
</table>

A = represents a 2:1 higher ratio difference by award winners
N = represents a 2:1 higher ratio difference by nonaward winners

---

A=represents a 2:1 higher ratio difference by award winners
N=represents a 2:1 higher ratio difference by nonaward winners

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CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Purposes and Methods of the Research

One purpose of this research was to describe the differences in instructional behaviors, patterns, and production elements between eight health-related films which received the Columbus International Film Festival Chris Statuette Awards and eight health-related films which were nonaward winners in the same competitive judging during the period 1974-1977.

A second purpose of the study was to describe more specifically the elements of design that may facilitate achievement of affective objectives in 16 mm instructional films.

A third purpose was to determine the viability of the Observational System for Instructional Analysis IV (OSIA IV) as a methodology for instructional film analysis.
The research questions were designed to reveal descriptive differences between award winners and nonaward winners involving:

1. instructional behaviors
   1a. the instructional behavior, initiation of facts

2. instructional patterns using the OSIA IV matrix, strategy context analysis, and standard variable analysis.

3. production elements
   3a. the use of third-person narration "voice-overs" in the sound tracks
   3b. visual dominance versus audio dominance
   3c. film designs
   3d. cognitive, affective and general use of music
   3e. use of color as a cognitive discrimination cue and as an affective cue
   3f. use of pauses in audio information
   3g. use of audience involvement techniques
   3h. use of introductions and summaries
   3i. use of attention-directing devices such as sound effects, graphics, and optical effects

4. use of the persuasive communication techniques: ethos, pathos, logos, threat appeal, explicit conclusions

1operational definitions of the variables appear in Chapter I.
The study was conducted in three phases. During Phase I the Collart Subfunction and Subscript Film Analysis System for OSIA IV was developed to meet the specific needs of this investigation. The 16 mm instructional films involved in the study were solicited from the producers and distributors and transferred to 3/4" videotape. Each film was reviewed in its original 16 mm format and notations were made regarding large screen format and color before being returned.

Data collection comprised Phase II. The films were coded in a random order from the videotapes. The fourth, eighth, twelfth, and sixteenth films were coded twice as a check on interobserver reliability. The validity of the construct applications were checked at those same times with a senior faculty member of The Ohio State University College of Education who is a co-developer of OSIA IV. Descriptive observations were noted.

Data analysis comprised Phase III. Data were entered into an OSIA computer program developed by Bill Siders (1973) and a specially developed SNOBOL program for the Collart Subfunction and Subscript Film Analysis System.

Conclusions

1. THE OBSERVATIONAL SYSTEM FOR INSTRUCTIONAL ANALYSIS (OSIA IV) IS A FLEXIBLE, FEASIBLE RESEARCH TOOL FOR INSTRUCTIONAL FILM ANALYSIS.

OSIA was established as an instrument for classroom observation, yet this study establishes its applicability for film
research, even though classroom behaviors differ from screen behaviors.

The "instant replay" capabilities of film allow the researcher multiple opportunities for verifying the accuracy of coding events in a way not possible in the classroom unless audiovisual technology is used to record the classroom experience for later analysis.

OSIA IV appears to be an improvement over previous observational methods for film analysis in handling multiple variables concurrently with ease. The subfunction and subscript capabilities facilitate the blending of instructional variables and film production elements into one observational system. The methodology is cost-effective in coding and analyzing instructional films.

The large differences in discrimination of the findings lends credence to this methodology as a valuable research tool.

Conceptually, OSIA IV has the capability of handling all the variables in this research without pushing the system to its limits. The coding system facilitates many post-coding manipulation possibilities for analysis.

One potential limitation in the use of OSIA IV is the time needed to learn the system. The investigator spent one academic quarter in a course taught by the OSIA IV developers to gain the expertise necessary for this investigation. An alternative for investigators not having direct contact with the developers is to
read and study Hough, J.B. and Duncan, J.K., Teaching: Description and Analysis, 1970 or to contact Hough, Duncan, or Belland for their current working papers.

2. A STUDY OF A DICHOTOMIZED SAMPLE OF AWARD AND NONAWARD WINNING FILMS IDENTIFIES VARIABLES WORTHY OF ATTENTION BY RESEARCHERS AND INSTRUCTIONAL FILM-MAKERS.

This study is the first contemporary film research to analyze film festival entries according to judging results. The significant discrimination in the findings with this sampling techniques supports its usefulness.

3. ANALYZING FILMS WHICH ARE "CONTENT-SPECIFIC" VERSUS "AUDIENCE-SPECIFIC" IS A MEANINGFUL RESEARCH PROCEDURE.

All films analyzed in this research are in the "Health, Medicine, and Safety" category. The contribution of this study suggests that analyzing films with similar content provides significant information regarding film design.

4. ORGANIZING RESEARCH UNITS INTO FILM OPENINGS, BODIES, AND CLOSINGS IS A USEFUL RESEARCH PROCEDURE.

This study clearly demonstrates that selectivity in use of film variables extends into the three organizational parts of the film - the beginning, middle and end. Many variables which might otherwise have been considered unimportant have been identified as being significant through this design procedure.
Prior research supports the importance of film openings. Studies indicate that primacy in any message system is important. Television research shows that viewers typically switch channels within the first five minutes. It may be hypothesized that many film judges are most concerned with the first few minutes of a film that they are judging. There is also considerable analysis which suggests that the last thing one sees or hears is persistent in the memory, thus endings may also be especially important for analysis. The present study supports research on the importance of both primacy and recency in message design.

5. INSTRUCTIONAL FILM RESEARCH FINDINGS HAVE APPLICATIONS FOR DOCUMENTARY AND FICTIONAL FILMS, AS WELL AS EDUCATIONAL FILMS.

Other investigators have recognized that many films analyzed as educational films were originally designed for entertainment purposes, although they later became instructional in use.

This study was based on the analysis of films originally designed to instruct. The factual content was high. Descriptive literature provided by the film producers identified the primary "instructional" intent of the films. The intentional design of films for instruction is obviously an important factor which influences the results when instructional films are used as the material for research.

Specific Conclusions

1. AWARD WINNERS EMPLOY INSTRUCTIONAL STRATEGIES AND PRODUCTION TECHNIQUES MORE SELECTIVELY THAN NONAWARD WINNERS.
Award winners are more selective in employing specific variables, especially attention-directing optical effects and graphics. This selectivity is also found in film openings, bodies and closings.

Just as an artist, creating a painting thoughtfully and carefully, selects the technique, medium, and colors from the palette to ensure the desired expression, an instructional film designer also knowledgably and carefully selects from the educational palette the actor behaviors, message characteristics, and the production elements which best facilitate communication.

2. ALL FILMS IN THIS STUDY HAVE ATTRIBUTES THAT ARE BOTH COGNITIVE AND AFFECTIVE IN NATURE.

This study supports findings that affective and cognitive learning are highly interactive. Films that teach include both elements and must do so to be effective as learning experiences. However, award winners have more attributes associated with affective intents and responses than nonaward winners. The present results support earlier findings by Miller (1967) and others. As Jean Benoit-Levy stated, as cited by Wagner, "To reach the mind, the heart must be touched".

3. AWARD WINNERS HAVE MORE AFFECTIVE VARIABLES THAN NONAWARD WINNERS.

Award winners have a higher percentage of affective music, affective color, and affective contrived sound effects. While
award winners are clearly instructional in nature, it is the investigator's conclusion that they have more affective entertainment and interest qualities than nonaward winners.

4. **ALTHOUGH ALL FILMS IN THE STUDY EMPLOY SOME PERSUASIVE MESSAGE VARIABLES, NONAWARD WINNERS UTILIZE MORE PERSUASIVE MESSAGE TECHNIQUES (ETHOS, PATHOS, LOGOS, THREAT APPEAL, AND EXPLICIT CONCLUSIONS).**

Nonaward winners use ethos at times in a manner very similar to the "testimonial endorsement" described by Boorstin (1972).

Only nonaward winners employ explicit conclusions. However, the literature raises the question of the effectiveness of this strategy for film design in light of Wagner's (1953) and Hoβan's (1946) conclusions that in some cases open-ended films are more desirable than those with closure.

The use of threat in this study is interesting in that award winners are covert in their direction of threat to the viewer, while nonaward winners do not employ this technique. One could hypothesize that covert viewer communication of a threat appeal is more effective than no such appeal.

5. **AWARD WINNERS EMPLOY MORE VARIABLES ASSOCIATED WITH CREATIVITY THAN NONAWARD WINNERS.**

It appears to the investigator that award winners are more creative than nonaward winners. Award winners have the highest display of creative film design. One could conclude that some
variables require more creativity than others: affective music, affective color, contrived affective and cognitive sound effects, subjective camera angle, animation, visual dominance, and audience involvement techniques. These are all variables characteristic of award winners.

6. AWARD WINNERS DEPICT CENTRAL CHARACTERS IN AN ACTION MODE THROUGH THE INSTRUCTIONAL BEHAVIOR "MANIPULATION OF ARTIFACTS" WHILE NONAWARD WINNERS DEPICT SECONDARY CHARACTERS IN THIS MODE.

   It seems more relevant to depict the central characters in a "doing" action as found in award winners, than in an "initiation of facts" mode, as with nonaward winners. This supports Gagne's (1977) indirect observation theories and Bandura's (1969) human modeling and vicarious reinforcement theories.

7. AWARD WINNERS INITIATE MORE FACTS THAN NONAWARD WINNERS.

   The source of initiation of facts is primarily "other" in award winners and "central characters" in nonaward winners. Research suggests that the greatest attitude change may come from continually adding information.

   Hansra (1978) found that Sesame Street programs initiated ideas and information 66% of the time (p. 87). The present findings are consistent with Hansra's.

8. NONAWARD WINNERS ARE CHARACTERIZED BY THE CLIMATE, INTERACTION AND APPRAISAL VARIABLES ASSOCIATED WITH STUDENT ACHIEVEMENT IN THE CLASSROOM.
Nonaward winners are characterized by variables presumed to be desirable in the classroom by Hough, Duncan and Belland based on the Flanders research tradition.

The fact that award winners are not associated with instructional variables "desired" in the classroom is consistent with the observation that instructional techniques in film are different from instructional techniques in the classroom. One must translate good teaching to film by filmic techniques, by utilizing the unique characteristics of the medium, not by just recording the classroom performance.

These findings are consistent with and substantiate Hansra (1978) who demonstrated that Sesame Street educational television used different instructional behaviors than those which research associates with classroom achievement.

Although it has not been demonstrated that award winners are more effective instructionally, the findings strongly suggest that effective instructional film techniques are not the same as effective instructional classroom techniques. As McLuhan put it in his widely-quoted statement, "The medium is the message" (1964, p. 284).

9. AWARD WINNERS ARE CHARACTERIZED BY LESS INTERACTION AND FEWER COMMUNICATION MOVES THAN NONAWARD WINNERS.

High interaction may confuse the story line by adding extraneous, meaningless information which interferes with the message and constitutes "noise".
Award winners have a higher percentage of direct communication which could facilitate message reception. This is consistent with Hansra's (1978) finding that *Sesame Street* is characterized by substantive direct communication.

10. **AWARD WINNERS INTERPRET VISUALS THROUGH NARRATION AND SOLILLOQUY MORE OFTEN THAN NONAWARD WINNERS.**

The verbal interpretation of visuals enhances the clarity of the message and serves as an auditory repetition of the visual message. The key seems to be selectivity and reinforcement in the sound interpretation of the visuals.

11. **AWARD WINNERS HAVE MORE VISUAL DOMINANCE THAN NONAWARD WINNERS.**

Other research by Swanson (1953) and Schmidt (1973) confirm this finding.

A widely-applied guideline in film design is that one should not use dialogue if the meaning of an action can be shown visually. Award winners exemplify this working principle.

12. **AWARD WINNERS ARE DESIGNED AROUND A STORY-LINE MORE THAN NONAWARD WINNERS.**

This study supports findings by Allen (1960) on the importance of "story" films in changing attitudes.

13. **AWARD WINNERS USE MUSIC SELECTIVELY TO CONTRIBUTE TO THE COGNITIVE OR AFFECTIVE MEANING OF A SCENE.**

Music, appropriately used by award winners, underscored and reinforced the visual impact. The music had some evident
relation to the content, rather than being used only as an emo-
tional stimulus.

Award winners use music for specific purposes as suggested in the findings of Wagner (1953) and Schmidt (1973).

14. AWARD WINNERS USE COLOR SELECTIVELY FOR PURPOSES OF AFFECTIVE DISCRIMINATION WHILE NONAWARD WINNERS USE COLOR SELECTIVELY FOR COGNITIVE DISCRIMINATION.

Award winners use color more as a "symbol" to simplify, amplify and reinforce the main idea through association. Non-award winners use color as a "sign" to show what an object looks like.

These findings substantiate conclusions on color discrimination by Wagner (1953), Booth and Miller (1974), Green (1978) and Schmidt (1978).

Affective color demands more involvement and interpretation from the viewer than cognitive color. Affective color is dependent upon the viewer's color perception. This facilitates active involve-
ment and therefore an increase in interest, motivation, and perhaps learning. The visual ambiguity of affective color requires the viewers to complete and interpret the message.

15. AWARD WINNERS USE AUDIO AND VISUAL PAUSES SELECTIVELY.

Both award winners and nonaward winners use pauses as suggested by Hoban (1946, p. 94) based on the theory of retroactive inhibition. However, nonaward winners use additional pauses, often in a sporadic and concentrated manner.
In nonaward winners the greater use of pauses coupled with shorter film lengths and rapid change of events result in awkward pacing. The high incidence of somewhat non-selective dissolves as pauses in nonaward winners is consistent with the findings on pauses.

16. AWARD WINNERS INCLUDE MORE AUDIENCE INVOLVEMENT THAN NONAWARD WINNERS.

This finding supports previous research by Wagner (1953) who identifies the subjective camera and the cartoon form as two of many factors which affect the degree to which the audience is involved in a film presentation. Award winners make greater use of these two techniques, as well as of the other audience involvement elements defined in this research.

17. AWARD WINNERS USE INTRODUCTIONS AND SUMMARIES MORE OFTEN THAN NONAWARD WINNERS.

The award winners' introductions alert the audience as to what to expect and thereby to direct attention to relevant features. They orient the viewer and establish a "set" or a condition of readiness for the presentation.

These findings are consistent with research on primacy and recency which shows that the first and last events in a presentation receive more attention and result in a higher rate of recall. They are also supported by research on "advanced organizers".
18. AWARD WINNERS HAVE A SLOWER RATE OF DEVELOPMENT AND PACE THAN NONAWARD WINNERS.

Award winners in comparison to nonaward winners are longer, have fewer scene changes, major events and minor events per film minute; fewer number of actor behaviors per minute; less actor interaction; longer openings and closings; and more introductions and summaries.

Award winners have a rate of development slow enough for the viewer to grasp the material as it was shown and slow at points when it was necessary for the viewer to change attention from one source of information to another.

Conclusions by Hoban (1946), Wagner (1953) and Schmidt (1978) support this finding.

19. AWARD WINNERS USE FEWER OPTICAL EFFECTS THAN NONAWARD WINNERS AND EMPLOY THEM MORE SELECTIVELY.

Award winners use optical effects to simplify, amplify or reinforce the main idea. Nonaward winners employ optical effects more as attention-gaining gimmicks.

Viewers may fail to understand the intent of the average optical effect. Inappropriate use of such effects may retard or interrupt the visual flow and detract from the message. Evidence discourages unmotivated use of optical effects.
20. AWARD WINNERS ARE CHARACTERIZED BY ANIMATED GRAPHICS WHILE NONAWARD WINNERS ARE CHARACTERIZED BY THE USE OF STILL GRAPHICS AND STATIC IMAGES.

Award winners make better use of the most obvious attribute of film – motion. A major power of the educational film lies in its capacity to present concepts involving motion. Award winners' graphics employ motion, while nonaward winners' graphics are usually static images.

21. AWARD WINNERS EMPHASIZE THE USE OF REAL AND CONTRIVED COGNITIVE SOUND EFFECTS AND CONTRIVED AFFECTIVE SOUND EFFECTS.

The award winning producers have taken advantage of sound as a creative and descriptive production element. Award winners display more thought and planning in the details in the soundtrack, the importance of which is described by Mantell (1978).

22. AWARD WINNERS PRESENT A MORE ARTISTIC INTERPRETATION OF REALITY THAN NONAWARD WINNERS.

Award winners are more aesthetically pleasing, creative, entertaining, and interesting than nonaward winners. Carefully contrived soundtracks, affective color and music, and fewer but more colorful actors contribute to this artistic difference.

Nonaward winners are characterized by less creative illustrations, use of cognitive color, and less affective use of sound.

Recommendations for Future Research

The following questions may be productive for future research:
1. ARE AWARD WINNING FILMS INSTRUCTIONALLY MORE EFFECTIVE THAN NONAWARD WINNING FILMS AS MEASURED BY CLASSROOM OR AUDIENCE PERFORMANCE AS WELL AS BY EXPERT OR JURIED OPINION?

Cardiopulmonary Resuscitation (CPR) would be ideal subject matter with which to analyze possible differences in cognitive and psychomotor learning. There is a proliferation of films produced every year on CPR. In the past four years there has been one Columbus Film Festival Chris award winner on CPR, two Chris bronze plaque runner-up winners on CPR and two nonaward winners on CPR.

2. WHAT COMPARISONS MIGHT BE MADE BETWEEN MOST-REQUESTED FILMS, TEACHER-SELECTED FILMS, AND AWARD WINNERS IN COMPETITIVE JUDGING?

Future film researchers should consider the instructional intent of films in their samples.

3. ARE THERE SIMILAR INSTRUCTIONAL DIFFERENCES IN AWARD WINNERS AND NONAWARD WINNERS IN THE CHRIS FESTIVAL IN CONTENT CATEGORIES OTHER THAN "HEALTH, MEDICINE, AND SAFETY" AS STUDIED HERE?

4. ARE INSTRUCTIONAL DIFFERENCES BETWEEN AWARD WINNERS AND NON-AWARD WINNERS ASSOCIATED WITH COGNITIVE, AFFECTIVE, OR PSYCHOMOTOR LEARNING?

5. ARE THERE SIMILAR DIFFERENCES IN AWARD WINNERS AND NONAWARD WINNERS IN OTHER FILM FESTIVALS?

6. IN WHAT WAY IS FILM CREATIVITY ASSOCIATED WITH LEARNING?

7. IN WHAT WAY DOES THE MODELING OF "UNDESIRABLE" BEHAVIORS ON FILM INFLUENCE LEARNING BASED ON THE REWARD OR PUNISHMENT OF THE SCREEN ROLE MODEL?

8. WHAT IS THE POTENTIAL FOR THE SUBLIMINAL INFLUENCE OF AFFECTIVE COLOR? IN WHAT WAYS MIGHT "COLOR LITERACY" BE IDENTIFIED IN FILM?
9. WHAT ARE OPTIMUM RATES OF DEVELOPMENT IN FILM?

OSIA IV provides a means for future researchers to measure the rate of development through the OSIA IV time-line display and subfunction analysis.

10. IN WHAT WAY CAN THE COLLART SUBFUNCTION AND SUBSCRIPT INSTRUCTIONAL FILM ANALYSIS TOOL BE REDESIGNED AND REFINED?

11. ARE THERE SIGNIFICANT COMBINATIONS OF INSTRUCTIONAL BEHAVIORS AND PRODUCTION ELEMENTS? ARE THERE, FOR EXAMPLE, ASSOCIATIONS, CHAINS, OR PATTERNS AMONG THE FOLLOWING VARIABLES:

a. actor eye contact/direct viewer communication.
b. dialogue/pauses/audiovisual dominance.
c. no talk on soundtrack/audiovisual dominance
d. affective music/affective color/affective sound effects
e. off-screen voice/communication
f. soliloquy/audience involvement
g. narration/poetic commentary/music/sound effects
h. graphics/optical effects/color
i. audience communication direction/introductions/summaries
j. audience communication direction/logos
k. initiation of facts/audiovisual dominance
l. initiation of facts/no talk
m. words to music/cognitive music/affective music
n. communication strategy/camera angle
o. music/visual dominance
12. WHAT ARE THE DESCRIPTIVE DIFFERENCES BETWEEN AWARD WINNERS AND NONAWARD WINNERS:

   a. in the way they gear the films to their audience?

   b. in obvious awareness of the film to persuade?

   c. in order of presentation in terms of agreement, believability, and complexity?

   d. in source/receiver discrepancies?

   e. in identification or modeling techniques? Is the model reinforced or punished?

   f. in the way in which credibility in the message is established? Source prestige? Expertise? Trustworthiness? Attractiveness?

   g. in use of repetition in the message design?

   h. in reinforcement of the message? Does a film reinforce needs and attitudes? Past experience? Existing beliefs? Future needs? A specific role?

Large differences between award winners and nonaward winners in the following categories of variables suggest that they are especially worthy of further investigation: (a) instructional behaviors; (b) climate, interaction and appraisal variables; (c)

1 these variables could be analyzed at a future time with the data from this study.

2 these questions were in the original research proposal before it was limited in scope; the data will be analyzed by the investigator as post-doctoral research.
affective attribute variables; (d) persuasive appeals drawn from social psychology, propaganda, and advertising literature; and (d) film rate of development and pacing variables.

13. IS THERE A WORKABLE CONCEPTUAL MODEL FOR INSTRUCTIONAL FILM DESIGN?

Instructional film design cannot be modeled as a one-dimensional concept when several dimensions are required to describe the process. This study suggests a triangulated approach to instructional film design by manipulating three complex sets of variables: (1) instructional behaviors, (2) motion picture production elements, and (3) persuasive message strategies.

The investigator sought a model to relate the OSIA IV methodology in a three-dimensional perspective. The analogy of a holographic model of three-dimensional photographs (holograms) seems relevant (Edelson, 1979).

Four physical laws of the behavior of light are fundamental to the production of holograms and analogous to OSIA IV.

1. Light travels in waves; instructional behaviors occur in patterns.

2. When two waves of light encounter one another they "interfere" with each other so that if two wave crests coincide, visible light is produced; when the interaction of instructional behaviors occur in desirable patterns the teaching/learning process occurs.

3. If a crest and a trough coincide they "cancel" each other and no light results; when the interaction of instructional behaviors occurs in negating ways, learning ceases.
4. A wave of light reflects in all directions from any point it hits; the infinite combinations of subscripted instructional behaviors are multi-dimensional.

The key to the production of holograms is a single beam of very bright (coherent) light. OSIA IV offers options of observational foci which intensify data collection.

The holographic light beam is passed through a special "beam splitting" mirror so that it is divided into two beams. One (the reference beam) shines directly onto the film; the other (the illuminating beam) is projected onto the surface of the object being recorded. In the OSIA IV analogy the reference beam is the encoded instructional behaviors and the illuminating beam is the computer generated instructional patterns.

As the light waves of the illuminating beam strike the object they interfere with the waves of the reference beam. This produces a pattern of exposed (light) and unexposed (dark) areas which in no way resembles the original object. The pattern of holes on the data cards and the OSIA IV data analysis computer printouts in no way resemble a 16 mm film.

In both the holographic process and the OSIA IV data analysis process the question then becomes how to manipulate elements back into a meaningful whole.

The key to reconstructing the three dimensional holographic image is viewing the hologram with the same kind of light as that used in the original recording process.
Analogously, in order to recreate the totality of the analyzed film, the data must be viewed with a rich understanding of: the sources of OSIA IV categories, the focus of observation, the setting of observation, and the variables specific to film analysis. Without this rich and coherent source, the data are meaningless.

In the one-dimensional model, the film-maker considers production elements and their selective contribution to the instructional film.

A two-dimensional model adds the complexity and richness of instructional behaviors to the film-maker's palette.

The three-dimensional model which the investigator proposes synthesizes the further requirement of persuasive message and affective considerations with the other two dimensions.

Guilford's "Structure of Intellect" model, defined by a conjunction of three categories provides an excellent prototype (1967; 1971). Each small cube or cell in the Guilford model stands for one particular intellectual ability or function and is denoted by a trigram symbol.

A "Structure of Instructional Film Design" model is proposed with three dimensions: (1) production elements (40 components); (2) instructional behaviors (13 components); and (3) persuasive message characteristics (7 components). A cell is formed by the intersection of one component from each of the
three dimensions. Therefore, each cell is a unique combination: 40 x 13 x 7 yielding 3650 possible tri-variable combinations. The model is conceptualized in Figure 2.

The present model defines critical areas where decisions must be made by the film-maker; the present study contributes detailed information toward understanding the range of film characteristics and their influence on learning.

The three-dimensional cubic design suggests that all three dimensions of the "Structure of Instructional Film Design" be considered by the film-maker as part of the creative process.

The model suggested not only brings into focus the numerous shortcomings of existing approaches to instructional film design, but also presents the possibility of a richer and more comprehensive design in a multiple-factored medium based both on the art and science of good teaching and good film-making.

This model needs further research and testing in practice.

Implications for Film-Makers

Criteria for judging film festivals do distinguish meaningful differences between films entered in a given category. Professional and non-professional film-makers alike can learn from critiques of their works by qualified judging panels especially when such panels include other film-makers as well as subject matter specialists.
Instructional Behaviors (13): thinks, senses, manipulates artifacts, initiates, responds, solicits clarification, solicits, judges correctness, personal positive judgment, acknowledges, judges incorrectness, personal negative judgment, instructionally nonfunctional.
Production Elements (40):

Soundtrack: narration, soliloquy, dialogue, silence, cognitive music, affective music, general background music, real cognitive sound effects, contrived cognitive sound effects, general background sound effects, real affective sound effects, contrived affective sound effects.

Graphics: symbols, charts, numbers/letters, arrows/direction indicators, cartoons, realistic drawings, stills, animation.

Optical Effects: dissolves, freeze-frames, still images, fades, double exposures, superimpositions, slow motion, fast motion.

Color: cognitive, affective, general.

Titles, credits, disclaimers.

Dominance: audio, visual, audiovisual

Communication Direction to Viewer: overt, covert, none.

Persuasive Message Characteristics (7): ethos, logos, pathos, threat appeal, explicit conclusion, introductions, summary.
The present study clearly identifies certain key differences between award winners and nonaward winners in a given festival in a given category.

Award winners in this study have clearly identified central characters and relatively few secondary characters. By contrast, nonaward winners usually have several central characters and feature secondary characters.

While award winners use third person narration they also have a considerable use of soliloquy of first person narration. Nonaward winners often have persons off-screen in dialogue with persons on-screen.

Award winners display visual dominance over audio in film bodies. Nonaward winners have both audio and visual dominance in equal proportions.

Award winners use strong story lines or plots, while nonaward winners do not.

Award winners use music selectively for both cognitive (i.e., informational) and affective (i.e., attitudinal) purposes and generally use small group ensembles for performance on the sound track. Nonaward winners often use general background music with solo instrumentation.

Award winners use color selectively, typically for affective (i.e., attitudinal) purposes. Nonaward winners use color for cognitive (i.e., informational) purposes and generally are not as selective in their use of color.
Award winners have covert (low key) communication with the viewer, while nonaward winners use more persuasive often covert appeals associated with testimonials, threat, logical argument and emotional appeals.

Award winners employ more subjective or first person camera angles than nonaward winners.

Award winners use introductions and summaries directed to the viewer. Nonaward winners use fewer and less strong introductions and summaries.

Award winners use real and contrived sound effects selectively for both informational and attitudinal purposes. Nonaward winners use sound effects primarily for background purposes, with less selectivity than award winners.

Award winners use animated graphics more selectively than nonaward winners.

Award winners use relatively few optical effects selectively, while nonaward winners employ optical effects throughout the films.

While there are some similarities between the design elements of the award winners and nonaward winners, the differences are notable. Selectivity seems to be the key in the use of specific production elements in the award winning films compared with the nonaward winning films. The careful and conscious manipulation
of the elements of film design used by the film-maker appears to enhance the message in the judgment of the evaluators in this festival. This calculated and deliberate selection of elements is well documented in the literature and is consistent with other research findings on good instructional film design.

The elegance of simplicity and selectivity are exemplified by award winning films. The introduction of too many elements into a single film design may simply result in "noise".

Finally, experienced educational film-makers will agree that successful classroom behavior cannot be directly translated to film. Effective behavior in instructional film is not the same as effective instructional behavior in the classroom. While teacher-learner interaction, indirectness, and acknowledging/non-personal judgmental behaviors are associated with classroom learning, film is successful as a direct teaching medium. Direct viewer communication, appraisal clarity, and the experience of verisimilitude are more appropriate for the instructional film.

In conclusion, the multiple variables within a film interact with the multiple unique and changing variables within an individual viewer. Instructional film design is a product of many factors and contains many elements. Films successful with festival juries and more importantly with the intended audience
depends upon the thoughtful, selective, creative, and well-researched design to meet the objectives and the audience for which the message is intended.
APPENDIX A
DEFINITIONS OF PERTINENT TERMS
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Affective Domain Variables

Attitudes

McGuire (1969, p. 142) acknowledged more than forty-six existing definitions of attitudes in the literature. After examining their different aspects, he personally subscribed to Allport's characteristics of an attitude, as cited in 1935. An attitude in Allport's 1935 definition, has at least five aspects: "(1) it is mental and neural state, (2) of readiness to respond, (3) organized, (4) through experience, (5) exerting a directive and/or dynamic influence on behavior".

McGuire (1969) defines an attitude as "a composite of the perceived instrumentality of that object to the person's goals, weighted by his evaluation of those goals" (p. 153).
Madsen (1973, p. 19) defines an attitude as "the tendency to react in a favorable or unfavorable way to events which impinge upon politics, religion, or economics, or any other subject producing a gut reaction". Madsen elaborates, "a basic attitude is very resistant to change because it is rooted in a person's whole outlook, conditioned by a lifetime of experiences".

Gagné (1974, pp. 65-66) describes attitudes as a distinct class of learning outcomes. Gagne (1977, p. 232) recognizes that most of our attitudes are learned incidentally, rather than as a result of preplanned instruction. Attitudes, as learned capabilities, are often coupled in thought with values. Gagné states that values are generally considered to be more general, whereas attitudes are more specifically oriented toward particular preferences. Gagné comments that Krathwohl, Bloom, and Masia in 1964 refer to attitudes as the affective domain, a phrase which emphasizes the emotional component. Gagné questions whether the "feeling" character of attitudes should be emphasized to the exclusion of cognitive and behavioral components. He believes that it is unduly restrictive to treat the learning of attitudes as 'training of the emotions'. Gagné (1974, p. 66) defines attitudes as "an acquired internal state that influences the choice of personal action towards some class of things, persons, or events". An attitude therefore is a learned capability that affects the learner's choice of personal action.

Gagné states that attitudes do not determine particular actions but rather make certain classes of individual action more
or less probable. Therefore, attitudes can be described as "response to tendencies" or states characterized by "readiness to respond" (1977, p. 231).

McGuire (1969, pp. 155-156) concurs with Gagné's views. He says, "Philosophers at diverse times and places have arrived at the same conclusion, that there are basically three existential stances that man can take with respect to the human condition: knowing; feeling; and acting. Throughout the classical tradition, from Plato and Aristotle, theorists repeatedly proposed the same three components of attitude under their Latinized names of cognitive, affective, and conative". Gagné (1977, p. 234) identifies that the three different aspects may be investigated separately or together.

The cognitive component of attitudes is also called the perceptual, informational, or stereotypic component. It refers to how the attitude object is perceived in its conceptual connotation; the "stereotype" the person has of the attitude object.

The affective component of attitude refers to the person's emotions, or feelings of like or dislike about the object of the attitude. Some theorists consider this component the core of attitudes, as the purely evaluative component.

The conative component of attitude is the action or behavioral component and refers to a person's gross behavioral tendencies regarding the object.
McGuire observes that the three components appear to be quite highly intercorrelated (1969, p. 156).

McGuire relies heavily on many theorists to distinguish four types of functions performed by attitudes: (1) the utilitarian (adaptive) function; (2) the econom (knowledge function; (3) the expressive (self-realizing) function; and (4) the ego-defensive function. He lists them in order of increasing subtlety (1969), p. 158).

Social Attitudes

Hoban and van Ormer (1950, p. 5-2) suggest that the term "attitude" is usually reserved for tendencies aroused by social situations, and are therefore "social attitudes". They define an attitude as, "a tendency to feel (and often act) consistently in a certain positive or negative way toward a certain class of events, objects, or persons". The tendency is attributed largely to experience. The arousal of the tendency reportedly is accompanied by an emotional response of a varying degree. The attitude may involve understanding and appreciation. Compared to interests, desires, and other motivations, attitudes are more passive. When aroused, an attitude functions as a "set" to facilitate associated activities, and inhibit unrelated activities.

Attitudes and Knowledge Distinctions

McGuire (1969, p. 150) cites Dobb in 1947 as distinguishing between attitudes and knowledge as follows:
Dobb viewed attitudes as intervening responses, evoked by antecedent stimuli, and themselves producing stimulus feedback that evoked further response. As such, the attitude constituted the response term of one habit and the stimulus term of another. Knowledge, a closely related construct, was distinguished from attitude in that the stimulus feedback of knowledge had only cue value, while that of attitude had both cue and drive aspects. Similarly, Allport in 1935 had proposed that habits be regarded as attitudes without the evaluative components. Dobb and Allport were proposing that attitudes exert both directive and dynamic influence on behavior, while knowledge exerts only a directive influence. Later theorists argue, however, that all stimuli have both cue and drive value.

Attitude and Persuasion Distinctions

McGuire states, "Some theorists propose to distinguish attitude change, produced by what is called 'propaganda' or 'persuasion' from knowledge change, produced by what is called 'education' or 'instruction'" (p. 150). McGuire (1969) cites Dobb and Campbell as suggesting that instruction is involved when "content" responses being taught are mainly directive versus dynamic; while persuasion is pronouncedly more dynamic in drive. Other schools of thought focus on extrinsic criteria of social significance such as whether the source of communication has vested interest for gain. Some suggest we are dealing with education when arguments are true and propaganda, when false (p. 150). McGuire (1969) concludes, "In general, in 'educational' situations the independent variable affects attitude change mainly through its relationship to the attention and comprehension mediators, and in 'persuasion' situations, mainly via the yielding mediators" (p. 151).
Attitudes and Values Distinction

One school of thought, such as Allport in 1937 cited by McGuire (1969, p. 151) defines values on a successive single continuum of opinion, attitude, interest, and value. Another proposal reported by McGuire regards values as components of attitudes. McGuire reports, "An attitude toward some state of affairs is defined as a composite of the balance (positive or negative) of all the values or goals to which that state of affairs is perceived to have positive or negative instrumentality" (1969, p. 151).

Garry and Kingsley (1970, p. 506) identify two differences between attitudes and values. They suggest that attitudes are response oriented affective sets to respond positively or negatively to certain kinds of experiences, objects, persons, or events. Values and ideals are goal and action oriented, representing something an individual seeks or will strive for. Values are goals to which there is an emotional commitment. A second difference is the cognitive dimension of values; they represent certain convictions that are a basis for making decisions about actions.

Gagné (1977, p. 240) states that attitudes may be arranged on a continuum that represents increasing degrees of internalization ranging from those lightly held to those that are strongly valued and highly resistant to change.

Attitudes and Opinions Distinction

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Attitudes and Opinions Distinction

McGuire (1969, p. 152) suggests that perhaps more effort has been expended to distinguish between attitudes and opinions than any
other construct. He cites Jones and Kelly in 1953 as differentiating attitude as the general orientation, and opinion, as the more specific manifestation of the broader attitude.

Madsen (1973, p. 19) says, "Opinions, while related to attitudes are concerned with specific localized issues and do not necessarily produce reactions which are favorable or unfavorable. Opinions are, for the most part, concerned with changes of belief which do not affect an attitude and are readily subject to modification by film and television programming. Only by careful research can the producer determine whether the subject and interpretation of this film will impinge upon an attitude or an opinion held by his target audience and thereby anticipate the possibility of "boomerang effect". Most ostensibly 'individual' opinions and attitudes are actually the norms of groups to which the individual belongs or wishes to belong".

It seems to Hoban and van Ormer (1950, p. 5-3) that opinions used in the sense of "specific beliefs and notions about which one is none too confident" do differ from attitudes. Such opinions are more probable to be more transient, more easily modified, and less intimately related to basic motivations.

McGuire (1969) concludes "... distinctions agree in depicting opinion as the more observable entity, while attitude is tendered a more precarious empirical status as existing within the private consciousness of the believer (or within some deep recess of his being not accessible to his own consciousness), or perhaps only as a figment
within the conceptual framework of some theory about attitude change or measurement" (p. 152).

**Motivation**

Hoban and van Ormer (1950, p. 5-1) define the concept of motivation as a pattern of personal activity which involves:

1. The desire, wage, or less conscious need of the individual for a condition or state, physical or psychological, which will result in at least temporary satisfaction, adjustment, or relief of the need (or needs) aroused.
2. The identification of a course of action, precise or vague, as a possible means of achieving or of eliminating a threat to the achievement of satisfaction of the aroused need.
3. The release of energy into channels of behavior patterned in accordance with the course of action chosen as the means of satisfying the need.

Hoban and van Ormer recognize and define four basic motivations of human conduct: self-preservation, self-realization, self-identification, and self-regard (1950, p. 5-1).

**Motives**

Motives, as defined by Hoban and van Ormer (1950, p. 5-1) are the starting point of the need-means-goal chain of activity. They say, "Motives include any state or event in the individual which initiates and regulates his activity in relation to a goal. Such terms as psychological drive, wage, need, impulse, desire, wish, interest, attitude, purpose and ideal are frequently used to describe types of motives".
Propaganda

Education and Propaganda - Doob (1935, p. 80) distinguishes between education and propaganda. Doob states, "If individuals' attitudes are controlled through the use of suggestion, as this term has been defined, then the process may be called propaganda, regardless of whether or not the propagandist intends to exercise the control. On the other hand, if individuals are affected in such a way that the same result would be obtained with or without the aid of suggestion, then this process may be called education, regardless of the intention of the educator. It follows, therefore, that the imparting of knowledge or skill which has reached the scientific stage or of scientific procedures is education and not propaganda".

Intentional Propaganda - The intentional propagandist has the psychological advantage of working out tactics skillfully designed to accomplish his aim. Intentional propaganda is a systematic attempt by an interested individual (or individuals) to control the attitudes of groups of individuals through the use of suggestion, and consequently to control their actions (Doob, 1935, p. 89).

Unintentional Propaganda - Unintentional propaganda is the control of the attitudes and, consequently, the actions of groups of individuals through the use of suggestion. The unintentional propagandist has a social advantage and is usually able to control almost completely the media of communication within a society; he does not appreciate the social effect of his own actions (Doob, 1935, p. 89).
Suggestion

The spoken or written word is the chief stimulus -
situation employed by the propagandist in his role as a suggestor
to change or direct the action of an individual.

Direct Suggestion - In direct suggestion, an individual
perceives as part of the stimulus-situation at the suggestor's imme-
diate aim and, in addition, there are aroused within him auxiliary
and related attitudes. If the suggestion is successful, then the
new integration within the mental field will include the comprehen-
sion of the aim and the related attitudes, and it may or may not
lead to the action which the suggestor desires (Doob, 1935, pp. 56-
57).

Indirect Suggestion - In indirect suggestion the individual
is not able to perceive the suggestor's immediate aim in the stimu-
lus-situation. The situation, however, arouses both auxiliary and
related attitudes, the integration of the latter of which within the
mental field, if the suggestion is successful, is, nevertheless, the
one sought by the suggestor (Doob, 1935, p. 59).

16 MM FILM VARIABLES

Instructional Film

In a broad sense, education refers to both planned and inci-
dental experiences which contribute to growth and change of knowledge,
abilities, and attitudes. Education encompasses the more specific
term instruction which implies a preplanned, deliberate arrangement
of personal, temporal and material resources to facilitate learning. According to Hoban and van Ormer (1950, p. 1-3) educational influence of films may occur independently and even contrary to the original intent of the film. Instructional film influence, therefore, requires a high degree of preplanning and directional intent in both its production and its use.

**Media and Message Distinctions**

McLuhan (1964, p. 284) defines media as any developments which extend man's senses. The "media" have content, or information conveyed literally by the words; as well as a "message" that is, "the change of scale or pace or pattern that they introduce into human affairs". McLuhan contends that this message, which is also characteristic of technology, is more important than the content. He argues, "The medium is the message".
APPENDIX B

THE PRINCIPLES OF PROPAGANDA
APPENDIX B

THE PRINCIPLES OF PROPAGANDA
(Doob, 1935, pp. 413-417)

1. **PRINCIPLE OF THE INTENTION OF THE PROPAGANDIST.** In intentional propaganda, the propagandist is aware of his interested aim; in unintentional propaganda, he does not appreciate the social effect of his own actions.

2. **PRINCIPLE OF PERCEPTION.** The propagandist makes his stimulus-situation stand out from its competing ground.

2a. Perceptual Principle of Auxiliary Attitudes. The propagandist makes his stimulus-situation outstanding through the arousal of auxiliary attitudes.

2b. Perceptual Principle of Repetition. The propagandist repeats his stimulus-situation to increase the probability that it will be perceived.

2c. Perceptual Principle of Simplification. The propagandist simplifies his stimulus-situation to bring it within the range of perception.

3. **PRINCIPLE OF THE TYPE OF PROPAGANDA.** The propagandist employs any one or all of the following types of propaganda: revealed, delayed revealed, and concealed propaganda.

3a. Principle of Revealed Propaganda. In revealed propaganda the propagandist enables people to perceive his aim through direct suggestion.

3b. Principle of Delayed Revealed Propaganda. In delayed revealed propaganda the propagandist reveals his aim only after he has aroused related attitudes.

3b1. Temporal Principle of Delayed Revealed Propaganda. In delayed revealed propaganda the propagandist enables people to perceive his aim at a moment when that aim can be integrated into the previously aroused related attitudes.

3c. Principle of Concealed Propaganda. In concealed propaganda the propagandist refrains from stating his aim and integrates through indirect suggestion the aroused related attitudes into a new attitude which predisposes people toward that aim.
4. **PRINCIPLE OF RELATED ATTITUDES.** In the process of suggestion, the propagandist arouses related attitudes that are instrumental in bringing about the desired integration.

4a. **Principle of Related Dominant Attitudes.** The propagandist employs attitudes that are already dominant as related attitudes or he arouses related attitudes that remain dominant over a period of time.

4b. **Principle of Related Central Attitudes.** The propagandist arouses related attitudes that are central attitudes.

4c. **Principle of Related Auxiliary Attitudes.** The propagandist arouses auxiliary attitudes that also function as related attitudes.

4d. **Principle of Variation.** The propagandist varies the content of his stimulus-situation, in order to arouse related attitudes in different people and, by changing their stereotypes, to construct new attitudes in others through positive suggestion.

5. **PRINCIPLE OF THE DESIRED INTEGRATION.** The propagandist secures a desired integration that predisposes people toward his aim.

5a. **Principle of the Type of Integration.** The desired integration is either a central or a segmental attitude.

5b. **Principle of Action.** The propagandist secures a desired integration that leads to action.

6. **PRINCIPLE OF THE SPHERE OF UNPREDICTABILITY.** Before the desired integration is achieved between the related attitudes and, except in the case of concealed propaganda, the comprehension of the propagandist's aim and before it leads to action, there is a sphere of unpredictability due to the temporal character of the propaganda, the presence of competing propagandists, and the complexity of the personalities in the group with which the propagandist must deal.

6a. **Principle of the Auxiliary Submissive Attitude.** The propagandist reduces the sphere of unpredictability by restricting the mental field through the arousal of a submissive attitude toward a stimulus-situation which has prestige and the effect of which is a tendency toward increased suggestibility.
6a1. Principle of Positive Social Value. The propagandist includes within his stimulus-situation objects and persons with positive social value.


6a3. Principle of Selection of Propaganda. When the prestige of the propagandist or of the stimulus-situation is not diminished by the revelation of his aim, revealed propaganda is employed; when the prestige is diminished by that revelation, concealed propaganda is employed; when it is diminished by an immediate but not by a subsequent revelation, delayed revealed propaganda is employed.

6b. Principle of Indicating the Paths of Action. In revealed and delayed revealed propaganda, the propagandist reduces the sphere of unpredictability by indicating the pathos of action to which the desired integration may lead.

6c. Principle of Reinforcing. The propagandist reduces the sphere of unpredictability by preventing the desired integration from remaining latent or from disintegrating.

6c1. Reinforcing Principle of Repetition. The propagandist repeats the same or similar stimulus-situations.

6c2. Principle of Additional Relating Pre-Existing Attitudes. The propagandist arouses other pre-existing related attitudes.


6d. Principle of Limitation. The propagandist reduces the sphere of unpredictability by limiting the stimulus-situation through distortion, suppression, and fabrication.

6e. Principle of Primacy. The propagandist reduces the sphere of unpredictability by producing the initial, relatively stable integration.
7. **PRINCIPLE OF COUNTER-PROPAGANDA.** The propagandist uses counter-propaganda when conflicting attitudes tend to prevent the desired integration from emerging.

7a. **Principle of Negative Suggestion in Counter-Propaganda.** In counter-propaganda, the propagandist uses negative suggestion to render conflicting attitudes ineffective.

7b. **Principle of Positive Suggestion in Counter-Propaganda.** In counter-propaganda, the propagandist uses positive suggestion to form new related attitudes that will counteract conflicting attitudes.

8. **PRINCIPLES OF PERSUASION.** The propagandist uses persuasion as a supplementary method.

8a. **Prestige Principle of Persuasion.** The propagandist employs persuasion on people with prestige toward whom later a submissive attitude is directed by other people.

8b. **Temporal Principle of Persuasion.** Persuasion supplements propaganda at a crucial moment to bring about the desired integration and action among certain people.
APPENDIX C
HISTORY AND PURPOSE OF COLUMBUS INTERNATIONAL FILM FESTIVAL
APPENDIX C

HISTORY AND PURPOSE OF COLUMBUS INTERNATIONAL FILM FESTIVAL

The Film Council of Greater Columbus (Ohio) was founded in 1950 by Dr. Edgar Dale, Professor Emeritus, Department of Curriculum Materials and Foundations, The Ohio State University and persons interested in promoting the use of 16 mm sound motion pictures. Two years later the Columbus International Film Festival was born and the following year the Columbus Area Chamber of Commerce became the Festival's co-sponsor.

Since its inception 27 years ago, the objective of the Film Council of Greater Columbus has been to encourage and promote the use of 16 mm motion pictures in every form, not only in the local community, but throughout the world.

The 1977 Columbus International Film Festival judged over 500 entries from the United States, Canada and West Germany. The Festival is one of the oldest festivals of its kind and is known as "the producer's showcase" festival.

The following categories are open for entries: Art and Culture, Business and Industry; Education; Education: Social Studies; Health, Medicine and Safety; Religion and Ethics; and Travel.

APPENDIX D

BASIS FOR JUDGING FILM ENTRIES
APPENDIX D

BASIS FOR JUDGING FILM ENTRIES*

All Festival Chairmen and their Jurors are carefully selected professionals in their respective fields of endeavor. As such they are well qualified to judge in their categories.

Whenever a Chairman feels that a film was entered in the wrong category he notifies the Film Council President and suggests that it be placed in the correct category. This has occurred frequently in past Festivals.

We are often asked for the points upon which a film is judged. The following points appear on the Official Rating Sheet:

ACTING: Are the characters convincing? Do they read or "live" their roles? Was there a good job of casting?

CLARITY: Does the film have a worthy message and does it get the message across? Or is the message obscured in an effort to cover too wide a scope in one film? Degree to which the film achieves its stated purpose.

TECHNICAL PROFICIENCY: Is the photography good? Are scene transitions smooth? Are the mood, musical and sound effects in keeping with the theme? Is the sound track sharp or distorted? Narration good? Organization and development of content effective?

INTEREST: Does the film have "human interest" appeal? If you were in the audience for which the film was made, would you be bored or on the edge of your seat? Freedom from undue bias should be considered.

VERITY: (Truthfulness of Presentation). Are facts presently overly exaggerated? Are episodes colored just to prove a point? Is fantasy clearly differentiated from fact? Is information accurate?

RATING CARD
(For Chairman and Juror)

1 through 4 - NO AWARD Poor ( ) Fair ( ) Good ( )
5 VERY GOOD - CHRIS BRONZE PLAQUE AWARD ( )
6 EXCELLENT - CHRIS BRONZE PLAQUE AWARD ( )
7 OUTSTANDING PRODUCTION - CHRIS STATUETTE AWARD ( )

The rating is: __________________________ Chairman __________________________
Category __________________________

*Courtesy of Columbus International Film Festival
APPENDIX E

PRODUCER/DISTRIBUTOR PARTICIPATION REQUEST
Dear Producer (or Distributor)

Your production has been selected from films entered in the Columbus International Film Festival during 1974-1977 for inclusion in a research project at The Ohio State University, the purpose of which is to analyze production elements in films in the field of health, medicine, and safety. The results, we hope, may be of use to producers of such films and to the field of health itself.

In order to collect the necessary data we need your assistance in: (1) the loan of the above named film for a period of one week; (2) your permission to videotape it in order to facilitate detailed coding of information and so your print will not be tied up; and (3) any promotional or descriptive literature which exists on your production, including any responses you may have had from users.

Your film will be used for research purposes only and, as stated in the attached form, the videotape will be used only by the investigator and will be erased immediately following the collection of necessary information. Your print will be returned within one week of receipt.

Contributors to the study will receive a complete report of the findings. Future publications referring to the study will also acknowledge your participation or that of your organization and/or institution.

Please indicate your decision regarding participation on the enclosed postal card.
Films should be sent along with the enclosed permission form to:

Dr. Robert Potts, Director
The Ohio State University
College of Medicine
Audiovisual Television Center
1583 Perry Street
2434 Allied Medicine Building
Columbus, OH 43210

Thank you for your cooperation.

Sincerely,

Marie E. Collart, R.N., M.S.
Principal Investigator

Robert W. Wagner, Ph.D., Professor
Department of Photography and Cinema
Department of Curriculum and Foundations
Project Advisor

bj
enclosures
APPENDIX F

DESCRIPTIONS OF FILMS IN STUDY
APPENDIX F
DESCRIPTION OF FILMS IN STUDY ¹

AWARD WINNERS

Film #1 - a creative story - plot to demonstrate the emergency care performance differences between registered emergency medical technicians and untrained ambulance drivers; general public and emergency medical health care professionals.

Film #2 - a creative film with puppetry to present fire prevention information and facts regarding responses to grease, electrical, and other fires; primary grade school children.

Film #3 - an animated film to present the widespread conflict of people who want to preserve their individuality and yet satisfy their need for group identification; general public (adult and teenagers).

Film #4 - a creative satire to identify the chemical additives, non-nourishing or harmful ingredients, and exorbitant price by the pound of several brand name foods; general public (intermediate-adult).

Film #5 - a dramatic film which presents the common essential features of experimental psychological research through the logic in two specific experimental examples; general public (high school-adult).

¹The descriptions are the "announced purpose" of the film and "intended audience" as identified by the film distributor.
Film #6 - a story plot character study of a young paraplegic and his transition from the initial pain and self-pity of his physical handicap to a meaningful career and happy home life; general public (children-adult).

Film #7 - a didactic film with realistic anatomical animation to depict the entire rehabilitative process following a myocardial infarction; general public and health care professionals (foreign film).

Film #8 - a creative, dramatic film which presents the current progress and future challenges in mental health ... care, treatment, attitudes, understanding, concern, acceptance; general public and health care professionals.

NONAWARD WINNERS

Film #1 - a nonverbal montage of images in a home for the aged in a foreign country, reveals the older persons' past lives and encourages the viewer to examine personal attitudes toward life in the past, present, and future; general public (upper elementary - adult).

Film #2 - a didactic presentation of cardiopulmonary resuscitation concepts; general public (high school - adult).

Film #3 - a didactic presentation of features of a successful patient care hospital audit program; health care professionals and hospital administrators.

Film #4 - an animated demonstration of the ionic basis of the action potential of a permeable membrane; high school science students and health care professionals.

Film #5 - a "cinema verite-like" story film of a young woman's reaction to her rape; general public.

Film #6 - a dramatic open-ended story film which poses the values question "Should I Drink?"; junior and senior high students.
Film #7 - a creative, dramatic film on the medical treatments for acne; junior and senior high students.

Film #8 - a story plot to create concern among young people about the serious consequences of venereal disease infection and to encourage discussion about venereal disease spread, infection, early investigation, treatment and responsibility toward self and contact; junior and senior high students.
APPENDIX G
PRODUCERS/DISTRIBUTORS WHO PARTICIPATED IN THE STUDY
APPENDIX G

PRODUCERS/DISTRIBUTORS WHO PARTICIPATED IN THE STUDY

1. AIMS Instructional Media Services, Inc.
3. Ayerst Laboratories
4. Benchmark Films, Inc.
5. Michael Block, Independent Film Maker, Los Angeles, California
6. Chasma Productions, Inc.
7. Children's Hospital, Chicago, Illinois
8. CRM Educational Films
9. Film Communicators
10. Walter J. Klein Co., Ltd.
11. Leonaris Films — Dr. GeorgMunck, West Germany
12. National Audiovisual Center, General Services Administration
13. National Medical-Audiovisual Center
14. National Mental Health Association
15. Paramount Communications, Inc.
16. Pyramid Films
17. QED Productions
18. Rediscovery Productions
20. Wexler Productions
21. Wombat Productions, Inc.
APPENDIX H

PERMISSION FORM
APPENDIX H

PERMISSION FORM

Permission is granted to The Ohio State University to duplicate the 16 mm film onto videotape for research purposes as described under the conditions herein stated.

Name

Title

Date

The Principal Investigator assures the above individual and his organization that the 16 mm film to be transferred to videotape is for non-profit, non-broadcast research purposes only. Only one videotape will be made of the film and it will be erased immediately following data collection.

Marie E. Collart, R.N., M.S., Principal Investigator
(614) 228-3851

Date
APPENDIX I
THE OBSERVATIONAL SYSTEM FOR INSTRUCTIONAL ANALYSIS
APPENDIX I

THE OBSERVATIONAL SYSTEM FOR INSTRUCTIONAL ANALYSIS*

The Observational System for Instructional Analysis (OSIA) is a categorical observation system to study instructional behavior related to teaching styles during the instructional process in the classroom. In using OSIA, seven dimensions may be collected simultaneously.

In the first dimension of the instructional events in the observation process, one can develop a description with a focus on instruction from the point of view of the teacher or from a particular student or from the overall instructional setting or any other focus that the observer may wish to describe. This setting may be a teacher aide, a student aide, a computer terminal, a film and so forth.

If the focus of observation is an individual, the observation procedure is simplified because the observer needs only to record what that individual is doing, and who is communicating with that individual without paying attention to anything else that is happening in the instructional setting (Paper No. 5, p. 9). However, if the instructional setting is chosen as the focus, the ground rule is "to record the paramount event at any moment in time." (Paper No. 5, p. 8). The instructional setting is complex and involves the teacher, any of the students and whatever is happening in the classroom. Recording only the paramount event at any moment in time allows the

observer to capture only some of the data. The researcher has to make decisions regarding aspects to observe when the instructional setting is the focus of observation.

To use the different focus symbols is important in encoding because the symbols are necessary in decoding the data for interpretation. The focus symbols used in collective data are FT for focus on instructional setting, FT for focus on the teacher, FS for focus on the student, and FO for focus on some other element in the instructional setting. (Paper No. 5, pp. 10-11).

The second dimension of the instructional events is to identify the instructional setting or situation. The setting may be a class, a group, a tutorial or a dyad, an independent or other setting to be described by the observed. (Paper No. 5, p. 11).

A class setting is the one where all or a significant portion of individuals (teacher and students) are actively or passively involved in an instructional activity. A group setting is a situation where only a few students with or without a teacher are involved in an instructional activity. A tutorial setting is the one where a teacher and a student or two students are involved. An independent setting is a situation where an individual is working in "psychological detachment" from others. "Psychological detachment" merely indicates a personal state of independence and not necessarily physical isolation (Paper No. 5, p. 13) and any other setting which is, not a class, not a group, not a tutorial, and not an independent
may be noted by an observer. The symbols used to indicate instruc-
tional setting are C for Class, G for group, D for dyad, I for inde-
dependent, and O for other (paper No. 5, p. 14).

The third dimension of events is the source of instructional
events, and the source can be the teacher, a student or other. The
code symbols used are T for teacher, S for student and O for other.
Other can be a computer terminal (Paper No. 5, p. 15).

The fourth dimension of instructional events, which can be observed, include the instructional functions and categories of
OSIA. The three instructionally functional behaviors are substan-
tive, managerial, and appraisal. Under both substantive and mana-
gerial behaviors are three major groupings, and within these sub-
groups are seven subclasses - appraisal behaviors have five sub-
classes.

To further delineate these categories, some descriptions and
definitions will be included in this section. Three major groupings
of substantive and managerial behaviors are called independent, ini-
tiations, and interactive behaviors. Independent behaviors are those
activities engaged in by an individual. The subclasses of behaviors
under this major grouping are thinking, sensing and manipulating
artifacts. These subclasses are defined as:

Thinking: any non-appraisal behavior in which a person
is apparently reflecting some substantive or managerial
aspect of classroom instruction (Paper No. 4, p. 23).

Sensing: any non-appraisal behavior in which a person
uses one's senses (seeing, hearing, feeling, tasting,
smelling) to take in information from an external source (Paper No. 4, p. 26).

Manipulating Artifacts: any non-appraisal behavior in which one works with curricular instructional materials (Paper No. 4, p. 29).

Initiation behavior is what an individual manifest when he/she is telling another individual something. This behavior is often referred to as the lecture. This is the only subclass of behavior under this major grouping and is defined as:

any spoken, unspoken or mediated non-appraisal behavior that present substantive or managerial information to another or others. The initiating behavior may be an expression of feeling status or value preferences (Paper No. 4, p. 32).

Interactive behaviors involve two or more individuals in reciprocal communication. Responding, soliciting classification and solicitation are the three subclasses under this major grouping. These three are defined as:

Responding: any spoken, unspoken or mediated behavior that responds substantively or managerially to an element in the instructional situation. The responding behavior may be an expression of knowledge, demonstration of a skill and/or an expression of a feeling skill or value preference (Paper No. 4, p. 35).

Soliciting classification: any manifest non-appraisal behavior, spoken, unspoken or mediated, that evoke or is intended to evoke from another person the fuller meaning of an antecedent behavior of that other person or a product of his behavior . . . may be in the form of a question, direction, or suggestion (Paper No. 4, pp. 38-39).

Solicitation: any manifest non-appraisal behavior, spoken, unspoken, or mediated that evokes or is clearly intended to evoke substantive and/or managerial behavior from another person in the instructional situation (Paper No. 4, p. 41).
Appraisal behaviors have five subclasses, four of which require that the individual manifesting the behavior exercise judgment about a person, a behavior or a product of behavior of one's self or another person in an instructional setting. The fifth subclass doesn't require the use of judgment, however, a form of acknowledgment of a person, a behavior or a product of self or another person in the instructional situation is evident (Paper No. 4, p. 1).

These five subclasses are judging correctness, personal positive judgment, acknowledgment, judging incorrectness, and personal negative judgment. These five subclasses are defined as:

**Judging correctness:** any manifest behavior, spoken, unspoken, or mediated, that responds or reacts to an antecedent behavior of the self or another or to a product of such behavior appearing in the instructional situation by judging the behavior or the product of behavior to have been logically, empirically or normatively correct in some degree. Publicly accepted criteria are invoked or could be invoked to support the judgment (Paper No. 4, pp. 4-5).

**Personal positive judgment:** any manifest behavior, spoken, unspoken or mediated, that responds to a person, self or another, an antecedent behavior of the self or another, or to a product of such behavior appearing in the instructional situation by expressing a personal, positive judgment about the person, behavior or product of behavior. The criteria for making the judgment are personal and arise from the feeling states or value preferences of the person doing the judging (Paper No. 4, p. 7).

**Acknowledging:** any manifest behavior, spoken, unspoken or mediated, that responds or reacts to a person, self or other or to a product of such behavior appearing in the instructional situation by acknowledging the person, behavior, or product of such behavior in ways that indicate that the person, behavior or product has been perceived. No judgment is explicitly expressed (Paper No. 4, p. 9).
Judging incorrectness: any manifest behavior, spoken, unspoken, or mediated, that responds or reacts is an antecedent behavior of the self or another or to a product of such behavior to have been logically, empirically, or normatively incorrect in some degree. Publicly accepted criteria are invoked or could be invoked to support the judgment (Paper No. 4, p. 13).

Personal negative judgment: any manifest behavior, spoken, unspoken or mediated, that responds or reacts to a person, self or other, an antecedent behavior of the self or to a product of such behavior by expressing a personal, negative judgment about the person, behavior or product of behavior. The criteria for making the judgment and are personal and arise from the feeling states or value preference of the person doing the judging (Paper No. 4, p. 16).

The fifth dimension of instructional events which can be observed include the sub-types of substantive, managerial and appraisal functions. Substantive behaviors can be subclassified into explicating and arranging; managerial into structuring and admonishing; and appraisal behaviors into expressed and accentuated. These are defined as:

Explicating: instructive in such a way that they or the self may, by means of the techniques employed, create conditions supportive of or directly promote learning. This may be accomplished by telling others, answering the questions of others, seeking clarification of the meaning of others or engaging in independent study that performs similar functions in an individualized setting (Paper No. 3, p. 12).

Arranging: instructing in such a way that, in part at least, others or the self may do things that are related to subject matter under study — primarily characterized by structuring conditions in such a way as to facilitate, sustain or extinguish substantive learning without engaging in substantive expliciation (Paper No. 3, p. 12).
Structuring: instructing that makes use of non-substantive and non-appraisal behaviors with the intent of creating non-substantive conditions that are supportive of or directly promote learning (Paper No. 3, p. 13).

Expressed: the ordinary (conventional) pattern of appraisal used by persons in the instructional setting (Paper No. 4, p. 6)

Accentuated: judgment of correctness or incorrectness characterized by its vivid departure from the ordinary — accentuated gestures, voice inflection or choice of words (Paper No. 4, pp. 6-15).

The subfunction classification is optional and can be used in any or all the three functions, or not at all. Subfunction coding is done by adding an A to the code symbol when the behavior is deciphered to be substantive - arrange, managerial - admonish, or appraisal - accentuated. The absence of A indicates the other behaviors, substantive - explicate, managerial - structure, or appraisal - express (Paper No. 5, pp. 22-23).

The sixth dimension of instruction events is the modes of communication. These modes are spoken, unspoken and mediated. The absence of a symbol to the code symbol indicates that the mode of the communication behavior is spoken. The symbol U is used to indicate unspoken behaviors, while M is the symbol to indicate mediated mode. Both spoken and unspoken behaviors may be associated with the use of some kind of media, and thus, a combination of symbols may be used (Paper 5, p. 24).

The seventh dimension of instruction events is the communication strategy. This system provides for coding direct (expository), interactive (reciprocal) or independent (private) communication.
The eighth dimension of instruction events which can be observed by coding with specific subscripts. Subscripting is an optional feature of OSIA. These subscripts could be varied to suit a particular descriptive or research need or could be standardized. This system allows up to 20 subscripts for each of the basic categories. Letters or numbers may be used, provided every letter or number has one and only one meaning. To code with a subscript, the symbol $ is used before the subscript code.
APPENDIX J

REVISED OBSERVATIONAL SYSTEM FOR INSTRUCTIONAL ANALYSIS
APPENDIX J

REVISED OBSERVATION SYSTEM FOR INSTRUCTIONAL ANALYSIS IV

*Focus
FI - Film Opening/Closing
FT - Film Body

*Communication Strategy
P - independent (private)
R - interactive (reciprocal)
E - direct (expository)

*Camera Angle
G - Subjective camera - viewer experiences the film in the "first-person"; zero camera angle
C - Objective camera - viewer observes the interaction rather than participates in the "first person".

Source
T - Central Character(s): main actor(s)
S - Secondary Characters: supporting actor(s)
Q - Other

Instructional Behaviors

<table>
<thead>
<tr>
<th>Substantive</th>
<th>Unison</th>
<th>Behaviors</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>01</td>
<td>thinks</td>
</tr>
<tr>
<td>2</td>
<td>02</td>
<td>senses</td>
</tr>
<tr>
<td>3</td>
<td>03</td>
<td>manipulates artifacts</td>
</tr>
<tr>
<td>4</td>
<td>04</td>
<td>initiates</td>
</tr>
<tr>
<td>5</td>
<td>05</td>
<td>responds</td>
</tr>
<tr>
<td>6</td>
<td>06</td>
<td>solicits clarification</td>
</tr>
<tr>
<td>7</td>
<td>07</td>
<td>solicits</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>judges correctness</td>
</tr>
<tr>
<td>9</td>
<td></td>
<td>personal positive judgment</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>acknowledges</td>
</tr>
<tr>
<td>11</td>
<td></td>
<td>judges incorrectness</td>
</tr>
<tr>
<td>12</td>
<td></td>
<td>personal negative judgment</td>
</tr>
</tbody>
</table>

X$S - change of scene - change in a unit of action to a different time or place
X$M - major event - change in an idea or major direction within a scene change
X$P - minor event - significant or noticeable change within a scene that does not alter the idea or direction
Y - interaction separator
*The first event is coded and operates on all behaviors that follow until a change is observed.
APPENDIX K
COLLART SUBFUNCTION AND SUBSCRIPT FILM ANALYSIS TOOL
COLLART SUBFUNCTION AND SUBSCRIPT FILM ANALYSIS TOOL

AM Audio Decision

Talk on Sound Track

$A$ - narration - third person narration explaining the events depicted on the screen; "voice-over"

$B$ - first person - introspective communication

$C$ - dialogue - interactive communication

$D$ - none - silence

$R$ - voice off screen talking to a person visibly on the screen

$S$ - voice off screen talking to a person off screen

$T$ - person on screen talking to voice off screen

Music

$E$ - cognitive - music transmits content as a principal cue; title theme music to establish set; contributes to illusion of reality; bridge or transition between sequences; supports and parallels the visual image.

$F$ - affective - music is a stimulus for the emotions; reinforces emotional scenes; represents, underscores, and reinforces visual impact.

$G$ - general - continuous music blending into the background without meaning.

Sound Effects

Cognitive - represents, underscores and reinforces the visual impact, providing the principal cue for meaning.

$M$ - real cognitive - lifelike or actual cognitive sound effects

$N$ - contrived cognitive - producer created or simulated cognitive sound effects.

Affective - stimulates feelings symbolically; gives an emotional depth to the representation; expresses mood and establishes an affective tone.

$O$ - real affective - lifelike or actual affective sound effects.

$P$ - contrived affective - producer created or simulated affective sound effects.

Background - general sound effects insignificant to the meaning of the scene.

$Q$ - general background sound effects
A Visual Decisions

Graphics - visual messages that transmit content by writing or drawing

$A - symbols - a visual graphic that stands for or suggests something else by reason of relationship, association, or convention.

$B - graph or chart - a graphic that diagrams a relation by visual points using lines, numbers and/or letters.

$C - numbers or letters - printed arithmetic units or alphabetic letters.

$D - arrows or direction indicators - a mark to draw attention to a specific printed visual segment.

$E - cartoon - an animated drawing symbolizing an abbreviated aspect of reality.

$F - realistic illustration - a drawing that is natural with as close a resemblance to the live subject or object as possible.

$G - still graphic - any of the above graphics that have no motion or movement.

$H - animated graphic - any of the above graphics that have motion or movement.

Optical Effects - visual effects made in the optical printer

$I - dissolve - the gradual transition, or melting, of one scene into another; accomplished by overlapping a fade-out with a fade-in.

$J - freeze frame - a form of stopped motion; all movement suddenly halts and the image "freezes" as it turns into a still photograph.

$K - still image - resembles a still photograph; like a freeze-frame but not proceeded by the image in motion.

$L - fade - the beginning of a scene gradually comes from complete black (fade-in); the end of the scene gradually disappears to complete black (fade-out).

$M - double exposure - a composite picture made by exposing the same piece of film twice.

$N - superimposition - animated graphics and/or visuals placed one over another.

$O - slow motion - movement at a speed less than normal; obtained by speed up the camera beyond 24 frames per second.

$P - fast motion - movement at a speed faster than normal; obtained by slowing the camera below 24 frames per second.

---

1 The fades were recorded in a notebook as fade-in or fade-out; the OSIA IV subscript capacity could not accommodate a separate subscript for each.
Attention Directing Real Image

$\text{Q} - \text{attention - directing image - a real or live moving image that has a significant or unusual characteristic that focuses the viewer's observation.}$

Color

$\text{R} - \text{cognitive - color shows that an object looks like as a discrimination cue for knowledge clarification.}$

$\text{S} - \text{affective - color shows what an object or message means as an affective cue; creates a filling or psychological impact about the subject.}$

$\text{T} - \text{general - color that is neither cognitive or affective.}$

M Titles/Credits

Titles - printed material to introduce the name of a film or sub-part; explain an action; or represent a dialogue

$\text{A} - \text{beginning - the film opening}$

$\text{B} - \text{body - the film middle}$

$\text{C} - \text{end - the film closing}$

Credits - a list of the names of the various artists and craftsmen who contributed to the film.

$\text{D} - \text{beginning - the film opening}$

$\text{E} - \text{body - the film middle}$

$\text{F} - \text{end - the film closing}$

Disclaimer - a statement of denial or disavowal

$\text{G} - \text{disclaimer}$

AUM - Dominance - predominance of action

$\text{A} - \text{audio dominance - primary use of audio elements to communicate the message.}$

$\text{B} - \text{visual dominance - primary use of visual elements to communicate the message.}$

$\text{C} - \text{audiovisual dominance - audio and visual elements function equally to communicate the message without either being attention-directing or attention-gaining.}$

Communication Direction - the focus of the message in terms of the viewer.

U - Overt Communication to Viewer - open communication obviously directed to the viewer.

Content Decision

$\text{A} - \text{ethos - persuasive appeal that concentrates on attractiveness and credibility of the source.}$

$\text{B} - \text{logos - persuasive appeal that uses logical argument and deduction.}$

$\text{C} - \text{pathos - persuasive appeal to feelings, values, emotions, puts receiver in an intended mood while receiving the message.}$

$\text{D} - \text{threat appeal - persuasive communication appeal which alludes to or describes unfavorable consequences that are alleged to result from failure to adopt and adhere to the communicator's conclusions.}$
$E$ - explicit conclusions - persuasive appeal whereby an explicit statement of the cognitive, affective, or behavioral change resulting from the communication is presented.

**Other**

$F$ - introduction - clear, succinct communication of the problem to orient the audience and establish a "set" or condition of readiness of the presentation.

$G$ - summary - a recapitulation of the important points made in a film.

$H$ - pause - the period of time immediately following a major event on the screen which allows for a mentally "settling-down" or time to reflect on previous action.

$I$ - other - any content decisions that are not $A - H$ (above).

**UA** - Covert Communication to Viewer - communication directed to the viewer in hidden, subtle and unobvious ways.

**$A - I$** - same subscripts as above.

**UM** - Communication NOT directed to the Viewer - the communication is entirely between the actors on the screen.

**$A - I$** - same subscripts as above.
APPENDIX L

PARTICIPATION RECOGNITION RESPONSE
Dear

Thank you for your participation in the film research study at The Ohio State University. Your film has been transferred to videotape and returned to you. As promised, only one copy was duplicated and the copy will be erased following data collection.

At this time, analyses tools are being pilot-tested. Data will be collected throughout the summer and analyzed in the Fall. The final report will be written during the Winter. You will receive a copy of the results, as soon as available.

Your cooperation and support enables this project to be implemented. Again, our sincere thanks.

Sincerely,

Marie E. Collart, R.N., M.S.
Principal Investigator
APPENDIX M

FREQUENCIES FOR OSIA IV CODING DIFFERENCES BETWEEN THE FIRST CODING AND SECOND CODING OF FOUR FILMS
APPENDIX M

FREQUENCIES FOR OSIA IV CODING DIFFERENCES BETWEEN THE FIRST CODING AND SECOND CODING OF FOUR FILMS

<table>
<thead>
<tr>
<th>Instructional Missed Behavior Frequency Differences Counts</th>
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<th>Sub-script Differences</th>
<th>Missed Variable Combinations</th>
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<tr>
<td>Film #4 1 (11 minutes)</td>
<td>4</td>
<td>-</td>
<td>1 1</td>
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<tr>
<td>Film #8 - (10 minutes)</td>
<td>2</td>
<td>4</td>
<td>- 6</td>
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<tr>
<td>Film #12 7 ( minutes)</td>
<td>7</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Film #16 3 (36 minutes)</td>
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<td>2</td>
<td>2 9</td>
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### Table N

<table>
<thead>
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<th>Direct</th>
<th>Interactivity</th>
<th>Independent</th>
<th>Private</th>
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<tr>
<td>Teacher</td>
<td>8.6%</td>
<td>31.8%</td>
<td>0.0%</td>
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<tr>
<td>Student</td>
<td>6.0%</td>
<td>1.8%</td>
<td>0.0%</td>
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<tr>
<td>Other</td>
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<td>0.0%</td>
<td>0.0%</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Direct</th>
<th>Interactivity</th>
<th>Independent</th>
<th>Private</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher</td>
<td>11.4%</td>
<td>1.8%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Student</td>
<td>3.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Other</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Direct</th>
<th>Interactivity</th>
<th>Independent</th>
<th>Private</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher</td>
<td>5.4%</td>
<td>2.4%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Student</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Other</td>
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### Setting

- **Observation**
- **Tutoring**
- **Appraisal**
### APPENDIX N

**TABLE 95** OSIA IV COMPUTER DISPLAY:

<table>
<thead>
<tr>
<th>ITEM</th>
<th>VARIABLE</th>
<th>ANALYSIS</th>
<th>TEACHER</th>
<th>NUMERATOR</th>
<th>STUDENT</th>
<th>STUDENT</th>
<th>NUMERATOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>INDIVIDUAL IDENTITY 1 (20/11, 11, 12)</td>
<td>102/125</td>
<td>0.342</td>
<td>0.422</td>
<td>1125</td>
<td>1.194</td>
<td>0.354</td>
<td></td>
</tr>
<tr>
<td>INDIVIDUAL IDENTITY 2 (20/11, 11, 12)</td>
<td>102/125</td>
<td>0.342</td>
<td>0.422</td>
<td>1125</td>
<td>1.194</td>
<td>0.354</td>
<td></td>
</tr>
<tr>
<td>INDIVIDUAL IDENTITY 3 (20/11, 11, 12)</td>
<td>102/125</td>
<td>0.342</td>
<td>0.422</td>
<td>1125</td>
<td>1.194</td>
<td>0.354</td>
<td></td>
</tr>
<tr>
<td>INDIVIDUAL IDENTITY 4 (20/11, 11, 12)</td>
<td>102/125</td>
<td>0.342</td>
<td>0.422</td>
<td>1125</td>
<td>1.194</td>
<td>0.354</td>
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</tr>
<tr>
<td>INDIVIDUAL IDENTITY 5 (20/11, 11, 12)</td>
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<td>0.342</td>
<td>0.422</td>
<td>1125</td>
<td>1.194</td>
<td>0.354</td>
<td></td>
</tr>
<tr>
<td>INDIVIDUAL IDENTITY 6 (20/11, 11, 12)</td>
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<td>1125</td>
<td>1.194</td>
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</table>

**APPENDIX VARIABLES**

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<th>ITEM</th>
<th>VARIABLE</th>
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<th>TEACHER</th>
<th>NUMERATOR</th>
<th>STUDENT</th>
<th>STUDENT</th>
<th>NUMERATOR</th>
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<tr>
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<td>1.194</td>
<td>0.354</td>
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<tr>
<td>INDIVIDUAL IDENTITY 2 (20/11, 11, 12)</td>
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<td>0.342</td>
<td>0.422</td>
<td>1125</td>
<td>1.194</td>
<td>0.354</td>
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<tr>
<td>INDIVIDUAL IDENTITY 3 (20/11, 11, 12)</td>
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<td>0.354</td>
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<td>0.342</td>
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<td>0.354</td>
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APPENDIX O
SNOBOL PROGRAM
# APPENDIX 0

## TABLE 0

|    | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | G | B |
|----|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|---|---|
| AM  | 3 | 7 | 3 | 12 | 31 | 19 | 22 | 20 | 22 | 11 | 7 | 10 | 15 | 16 | 3 | 19 | 20 |
| AS  | 1 | 5 | 14 | 10 | 12 | 13 | 11 | 21 | 22 | 9 | 2 | 2 | 20 | 22 | 3 | 19 | 20 |
| IM  | 11 | 4 | 3 | 28 | 17 | 11 | 7 | 3 | 2 | 1 | 7 | 5 | 12 | 1 | 1 | 2 | 36 |
| AM  | 1 | 4 | 3 | 1 | 1 | 2 | 5 | 6 | 4 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| AM  | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| AM  | 15 | 16 | 10 | 65 | 18 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 |
| AM  | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| AM  | 12 | 16 | 5 | 7 | 32 | 17 | 3 | 12 | 7 | 15 | 12 | 7 | 12 | 12 | 12 | 12 | 12 |
| AM  | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| AM  | 4 | 1 | 7 | 2 | 17 | 18 | 3 | 14 | 6 | 16 | 6 | 16 | 6 | 16 | 6 | 16 | 6 |
| AM  | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
### Table 87 - SNHOM Normalized Data

|   | 1  | 2  | 3  | 4  | 5  | 6  | 7  | 8  | 9  | 10 | 11 | 12 | 13 | 14 | 15 | 16 | G | B | T |
|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| TOTAL | 17 | 11 | 12 | 12 | 13 | 10 | 11 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 17 | 17 | 17 | 17 |
| AMEO | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 |
| ASHE | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 | 300 |
| AITE | 647 | 647 | 647 | 647 | 647 | 647 | 647 | 647 | 647 | 647 | 647 | 647 | 647 | 647 | 647 | 647 | 647 | 647 | 647 |
| HSD | 647 | 647 | 647 | 647 | 647 | 647 | 647 | 647 | 647 | 647 | 647 | 647 | 647 | 647 | 647 | 647 | 647 | 647 | 647 |
| AUMHC | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 |
| AHS | 705 | 705 | 705 | 705 | 705 | 705 | 705 | 705 | 705 | 705 | 705 | 705 | 705 | 705 | 705 | 705 | 705 | 705 | 705 |
| ASHE | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 |
| ATEC | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 |
| ASHE | 705 | 705 | 705 | 705 | 705 | 705 | 705 | 705 | 705 | 705 | 705 | 705 | 705 | 705 | 705 | 705 | 705 | 705 | 705 |
| ASHE | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 |
| ATEC | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 |
| ASHE | 705 | 705 | 705 | 705 | 705 | 705 | 705 | 705 | 705 | 705 | 705 | 705 | 705 | 705 | 705 | 705 | 705 | 705 | 705 |
| ASHE | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 | 117 |
| ATEC | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 |

**APPENDIX O**
APPENDIX P

FIVE MOST FREQUENTLY OCCURRING INSTRUCTIONAL BEHAVIOR MOVES BY ACTORS
## APPENDIX P

**FIVE MOST FREQUENTLY OCCURRING INSTRUCTIONAL BEHAVIOR MOVES BY ACTORS**

<table>
<thead>
<tr>
<th>Central Characters</th>
<th>Secondary Characters</th>
<th>Other</th>
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<tbody>
<tr>
<td><strong>Award Winners</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>moves</td>
<td>frequency</td>
<td>moves</td>
</tr>
<tr>
<td>T4→Q4</td>
<td>20</td>
<td>S4→Q4</td>
</tr>
<tr>
<td>T4→T3</td>
<td>11</td>
<td>S4→T2</td>
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<td>T4→S4</td>
<td>9</td>
<td>S7→T4</td>
</tr>
<tr>
<td>T7→T4</td>
<td>8</td>
<td>S7→S4</td>
</tr>
<tr>
<td>Q4→T4</td>
<td>18</td>
<td>Q4→S4</td>
</tr>
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<td>Q4→S6</td>
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<tr>
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<tr>
<td><strong>Nonaward Winners</strong></td>
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<td></td>
</tr>
<tr>
<td>moves</td>
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APPENDIX Q

AWARD WINNERS AND NONAWARD WINNERS RATINGS BY OTHER JUDGES

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# APPENDIX Q

AWARD WINNERS' AND NONAWARD WINNERS' RATINGS BY OTHER JUDGES

<table>
<thead>
<tr>
<th>Films</th>
<th>EFLA(^1) Entry Award</th>
<th>CINE(^2) Entry Award</th>
<th>LANDERS(^3) Review Recommendations</th>
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1. The Educational Film Library Association evaluates what the film is about, who could use it, for what purpose, and the value for the suggested audience(s). Films are rated on a scale of 0 (poor) to 5 (excellent) on: structure (organization, editing, continuity, etc.); picture quality (clarity, framing, color, etc.); sound quality (audibility, voice fidelity, music, effects); and overall value. Refer to Jones (1974).

2. The purpose of the Council on International Nontheatrical Events is to select films that will represent the American Filmmakers and the United States best at foreign film festivals. Therefore, a film which might be very useful in this country might not be selected by CINE, particularly if it relied heavily on narration and interviews. 30 preliminary juries around the country have a choice of rating sheet formats which include judging of creativeness, unusual appeal, technical quality, accuracy, good taste, and foreign film festival suitability. A final jury of CINE board members makes the decisions.
Landers Associates publish "Landers Film Reviews". As an independent film review service, Landers is contracted to review films and publish synopses of recommended films to those who subscribe to the service. The criteria for judging were not available to the investigator.
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