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SCHOOL-COMMUNITY RELATIONS: THE EFFECTIVENESS OF FOUR
TECHNIQUES OF DISSEMINATING INFORMATION ABOUT
A SCHOOL'S INDUSTRIAL ARTS PROGRAM
TO ITS COMMUNITY

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

By
Ronald LeChard Hoenes, B.A., M.A.

The Ohio State University
1970

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CHAPTER I

INTRODUCTION

Orientation To The Problem

Industrial arts is a common element of the public school curriculum. Three-quarters of American public secondary schools have industrial arts programs (Schmitt, 1967), and in many junior high schools industrial arts is a requirement for all males. However, Marshall L. Schmitt (1967, 45-7), specialist for industrial arts in the United States Office of Education, concluded from a national survey in 1963 that the industrial arts profession needs to communicate more effectively to the American public. This conclusion was supported by John L. Feirer (1965, 27) (1966, 11) in editorials in Industrial Arts and Vocational Education. He wrote that there was a poor public understanding of industrial arts and that those who knew of it still thought of it as "manual training." Like Schmitt, he too felt that a strong communications program was needed.

In a radio interview, Earl M. Weber (1966, 41-3), then President of the American Industrial Arts Association, also stated that communicating effectively with the public was the biggest problem confronting industrial arts.

Publicity about industrial arts is growing, but much of this growth is through professional publications which limits most of the
publicity to industrial arts personnel. What about businessmen, school administrators, parents of school children, and the rest of the members of the community whose votes are needed to secure necessary funds for industrial arts programs? Is a sound public relations program the answer? A research study by Karl Manger (1965) concluded that although educational programs can advance without a public relations program, they tend to advance more rapidly with a planned program of school-community relations.

Communication studies have shown that people tend to think of things as they themselves experienced them; consequently effective communication techniques are essential if the content of industrial arts curriculum innovations are to be effectively presented to and supported by the public. These curriculum innovations potentially offer the technologies which can make one's life more meaningful through a better understanding of occupations, operations, and products in our complex society. But good communication is necessary if the public is to realize the full potential of the "new" industrial arts.

Statement Of The Problem

It is generally accepted that good communication is a necessity which should be continuous between the public school and its community. But since communication in its broad meaning covers a
vast area of practices, feasibility criteria requires that this study
deal with a small part of it. An examination of the literature shows
that a few techniques are used much more than others to communicate
industrial arts to the public. Two of these popular techniques as
well as two techniques which are used sparingly will be investigated
in this study.

The purpose of this research is to determine the relative ef­
fectiveness of four techniques for disseminating information about a
school's industrial arts program to the parents of a school's entire
student body. These four techniques are: 1) a coordinated tape­
slide program about industrial arts, 2) an exhibit of industrial arts
work, 3) a newspaper article about industrial arts, and 4) an article
about industrial arts in the school newsletter.

The problem then, is to learn how effective are each of these
four techniques for informing parents about industrial arts, and
what is their order of effectiveness.

Statement Of The Objective

The ultimate objective of this research endeavor is to provide
sound methods of presenting industrial arts information to a school's
public. To accomplish this, reliable techniques of communication
must be devised, tested, and evaluated. The objective of this study
is to devise, present, and evaluate four techniques of presenting
information about industrial arts to a school's public.
Significance Of The Problem

A wealth of information in the literature stresses the importance of schools keeping their public informed regarding school matters. Recent evidence of the need for communicating the school's program was brought forth by a national survey of the public's attitudes toward the public schools (Gallup, 1969). This survey concluded that although the public wants information about schools, they are ill-informed about education.

A school-community relations specialist, Leslie W. Kindred (1957, 8), writes that the way citizens think and act in regard to plant, curricular offerings, supplies, equipment, and the like, not only establishes the limits of school functioning, but also influences the outcomes of the school. Regarding the curriculum, a research study by Clarence Bloom (1965) concluded that members of the community are more concerned about the curriculum of the school than any other specific phase of the school's operations. After performing research on school-community communications practices, Richard Anderson (1967) concluded that schools are continuously faced with the problem of effectively communicating with the public. One of the prominent industrial arts organizations, The American Council on Industrial Arts Teacher Education (1960), supported Anderson's conclusion when it stated that there is a need for research into techniques of presenting industrial arts to the community. The literature leads to one conclusion --
people want to know about their local school's curriculum, and school personnel must meet this need for information.

The immediate significance of this study will be to determine the communications value of four techniques used to present an industrial arts program to the public. The ordered effectiveness of the four techniques will also be determined. From the evidence obtained, industrial arts personnel may be encouraged to: 1) use all four techniques to communicate their program to the public, 2) use one, two, or three of the techniques to communicate their program to the public, or 3) use none of the techniques to communicate their program to the public.

In addition, this study can help fill a research void in data on the effectiveness of these four techniques of communicating a school program to the school's public.

**Definition Of Terms**

Because of the terminological problem in communication, terms which have special or frequent use must be defined. Any deviation from the definition of terms given below will be specifically noted within the context of this study.

*Communication.* -- Communication as used in this study means to successfully transmit that which is meant to be transmitted -- one-way transmission school to community.
**Coordinated Tape-slide Series.** -- A coordinated tape-slide series is the harmonious presenting of pictures on slides and their accompanying narration on tape.

**Disseminate.** -- Disseminate as used in this study is to distribute information about industrial arts to people outside of the industrial arts profession.

**Effectiveness.** -- Effectiveness as used in this study is the perception and understanding of industrial arts material, by the public, after this material has been made available to them.

**Exhibit.** -- An exhibit as used in this study is a presentation of industrial arts materials in a business center for public inspection.

**Industrial Arts.** -- Industrial arts is a study of industry that presents an understanding of the industrial environment to students, so that they can make wise decisions affecting their occupational goals and be wise consumers of industrial products.

**Information Program.** -- Information program as used in this study is the manner in which a school presents school information to the public.

**Newsletter Article.** -- Newsletter article as used in this study is a printed communication about a school's industrial arts program from the school to the residents of an entire community.

**Newspaper Article.** -- Newspaper article as used in this study is a printed communication about a school's industrial arts program appearing in a local newspaper.
Perception. -- Perception as used in this study is a positive mental state about a school information program, or the industrial arts program.

Professional Publication. -- A professional publication is a publication whose circulation usually reaches only those within a specific profession, in this case industrial arts.

Public. -- Public as used in this study is the people collectively of a particular locality, in this case Reynoldsburg, Ohio.

Public Relations. -- Public relations as used in this study is the management function which evaluates public attitudes and opinions, identifies the policies and procedures of an organization with the public interest, and executes a program of action and communication to earn public understanding and acceptance.

School Community Relations. -- School community relations as used in this study is the successful one-way communication between a school and its school district population dealing with industrial arts activities. Implications for making this a two-way communication are presented in Chapter V.

Technique. -- Technique as used in this study is the method employed to present information about industrial arts to the public.

Understanding. -- Understanding as used in this study is the comprehension of certain aspects of a school's industrial arts program.
Delimitations Of The Study

Delimitations were purposely chosen to keep the study within workable limits and to increase the value of the findings.

1. The essence of the problem is that although a successful information campaign uses many techniques, because of limited time and resources, not all possible techniques of information dissemination could be examined. Therefore, the information-dissemination techniques chosen were limited to: 1) a coordinated tape-slide series, 2) an exhibit, 3) a newspaper article, and 4) a newsletter article. These techniques were selected because they are commonly available to most school districts; they represent a mix of general public and targeted public dissemination techniques, and because they represent both common and uncommon techniques in past school public relations programs.

2. The content of the communications campaign was limited to a single curriculum program (industrial arts) because industrial arts is an uncommon subject for information campaigns, and a single curriculum element is also explored to prevent conflicts or complementary inter-actions created by information regarding several curriculum elements in which students and families might be directly involved.
3. A single community was chosen to provide a common basis for comparing the four techniques. Current information (1970 Census) regarding the community is not available at this time; therefore, the community cannot be accepted as a representative suburban city when interpreting the data.

**Limitations Of The Study**

Limitations are those aspects of the study which can be identified but not controlled. The identified limitations are:

1. The possibility exists that all parents making up the population for this study might not be eligible for inclusion in the sample for the coordinated-tape-slide program since it will be shown only to groups that will permit the author to make the presentation. However, this same limitation exists when this technique is employed in any information campaign.

2. In using the questionnaire as the data collection instrument, the following must be considered as limitations:

   a. There is no opportunity, other than by printed communication, to establish rapport with the respondent.

   b. The data is limited to written responses of respondents to prearranged questions. However, there will be provisions for the respondent to express his or
her opinions.

c. Possible misinterpretation of a question or directions for responding.

d. Possible misrecording of the answer by the respondent.

e. Possibility of low sample yield on the returns.

f. Biased sample representation on the returns.

g. Possibility of more than one individual completing one questionnaire. "A pooling of resources situation."

**Assumptions**

In order to design this study, certain assumptions were necessary. They are:

1. The opinion of the entire population (parents of the entire student body of Reynoldsburg High School) may be estimated with accuracy by appraising the opinion of a properly selected sample of parents.

2. The covering letter will adequately explain the purpose of and the procedure for completing the questionnaire.

3. The construction of every item on the questionnaire will be sound and accomplish its intended purpose.
4. The questions used in each of the questionnaires necessary to test the effectiveness of the four dissemination techniques will have the same meaning to each of the respondents within each sample.

5. The questionnaire format will encourage each person in the sample to complete and return it.

6. A preliminary tryout will eliminate poor questions and strengthen the questions to be used.

7. The time for conducting the poll will not cause a hardship on the respondents and, therefore, will encourage reliable answers and a high percentage of returns.

8. There is a need for this type of research and the findings will be of value in publicizing industrial arts programs.

Design Of The Study

In brief, the design of the study is as follows:

Design

1. Identify the population from which the samples will be drawn.

2. Select a random sample of parents for each of the five required samples -- one pretest and four post-tests.
3. Contact the school personnel to secure agreement for their participation in the study.

4. Develop the four techniques to be investigated.

5. Develop, through an extensive search of the literature and with the aid of experts, the survey procedures and instruments.


7. On the basis of the experienced gained in the pilot study, revise the survey instruments and survey procedures.

8. Proceed to conduct the study by:
   a. performing the pretest,
   b. exposing each of the four information dissemination techniques to the population,
   c. performing the post-test with each randomly selected sample.

9. Prepare, treat, analyze, and present the data.

Procedure

The universe of parents used in this study was acquired by using the roster of the entire student body at Reynoldsburg High School,
Reynoldsburg, Ohio. The universe represented parents of 1025 students in the high school which includes grades nine through twelve. The samples were drawn from the roster of 1025 students. The following procedure was used to obtain the five random samples required for this study:

**Pretest.** -- The first number was randomly drawn from thirty-five numbers, one through thirty-five, and every tenth number thereafter was then drawn to a total of one hundred.

**Exhibit.** -- The first number was randomly drawn from thirty-five numbers, one through thirty-five excluding the number which had already been drawn for the previous sample, and every twentieth number was then drawn to a total of fifty.

**Newspaper Article.** -- The first number was randomly drawn from thirty-five numbers, one through thirty-five excluding the numbers which had already been drawn for the previous samples, and every twentieth number was then drawn to a total of fifty.

**Newsletter Article.** -- The first number was randomly drawn from thirty-five numbers, one through thirty-five excluding the numbers which had already been drawn for the previous samples, and every twentieth number thereafter was then drawn to a total of fifty.

**Coordinated Tape-slide Series.** -- The coordinated tape-slide series was presented to groups of people in Reynoldsburg, Ohio. Each person who viewed the program and was a parent of a student
at Reynoldsburg High School became a member of the sample for this information dissemination technique. The only exception was to reject a parent as a member of this sample if he had been chosen in a previous sample.

The pretest was carried out before exposure of any information dissemination techniques to the universe. After exposure of each information dissemination technique to the universe, the survey was conducted for the respective samples of each technique according to a prearranged schedule.

**Chapter Summary**

Chapter I presented the orientation to the problem, the statement of the problem, the statement of the objective, the significance of the problem, the definition of terms, the delimitations of the study, the limitations of the study, the assumptions which might limit the study, and a brief explanation of the design of the study.

The problem of this study was to investigate the effectiveness of four techniques of presenting industrial arts to the parents of a school's student body. The study employed the survey approach using questionnaires to collect data from parents of a school's student body. The data collected represented parents' knowledge about what they had seen or read in a particular information dissemination technique about industrial arts in their community's high school.
The scope of the study involved surveying parents in five samples -- 1) pretest; 2) coordinated tape-slide series; 3) exhibit; 4) newspaper article, and 5) newsletter article. All respondents were drawn from Reynoldsburg, Ohio (Franklin County).

Organization of the Remaining Chapters

Chapter II will present a selected review of the literature in the areas which are considered by the investigator to be pertinent to the study. Chapter III will present a description of the procedures and the instrumentation utilized in the study. Chapter IV will present the results of the study and describe the treatment of the data. Chapter V will present the summary, conclusions, and the recommendations derived from the study.
CHAPTER II

REVIEW OF THE LITERATURE

The quantity of literature related to educational public relations has noticeably increased in recent years, reflecting the awareness of educators concerning the importance of informing the public about what is happening in their schools. Besides reviewing what has been written and researched in conjunction with educational public relations, this chapter briefly reviews its counterpart, the public relations profession and its influence upon educational public relations. A review of communications literature is also undertaken because of its important role in forming public opinion, the backbone of public relations.

The review of the literature presented here is concerned with reporting the pertinent theoretical literature and empirical research pertaining to:

1. the public relations profession
2. educational public relations
3. what the public knows about the schools
4. who the public is
5. characteristics of the public
6. surveying public opinion
7. communicating the message to the public
8. techniques which can be used to inform the public
9. techniques which are used to inform the public
10. techniques which industrial arts is applying to inform the public
11. characteristics of the four information dissemination techniques used in this study.

1. The Public Relations Profession

The origins of American public relations practice can be traced back to early colonial days, when one of the first such practices could very well have been the systematic effort to raise funds for Harvard College in 1641 (Morison, 1935, 303).

The tools and techniques of public relations have long been an important part of the weaponry in political warfare. In America, there were sustained efforts to move and manipulate public opinion about the Revolutionary War and the work of men such as Samuel Adams and Benjamin Franklin was often public relations motivated (Davidson, 1941, 3).

Allen Nevins (1962, 10), a historian, describes the propaganda efforts of Alexander Hamilton, James Madison, and John Jay as "history's finest public relations job." He believes, "Obtaining national acceptance of the Constitution was essentially a public relations exercise, and Hamilton, with his keen instinct for public relations, took thought not only to the product but to the ready acquiescence of thoughtful people; and he imparted his views to others... Once the Constitution came before the country, the rapidity with which Hamilton moved was a striking exemplification
of good public relations. He knew that if a vacuum develops in popular opinion, ignorant and foolish views will fill it. No time must be lost in providing accurate facts and sound ideas."

The importance of public relations received more support from its use by President Jackson. Writing about this particular historical aspect of public relations, public relations specialists Scott Cutlip and Allen Center (1964, 22-3) also emphasize the role of understanding public opinion.

Jackson, an unlettered man inarticulate in political or social philosophy, could not get his ideas across with ease. He, like many a modern executive, needed (Amos) Kendall, the specialist, to convey his ideas to Congress and the country. . . . Kendall sensed the increased impact of the press on opinion. He possessed a sure sense of mass psychology and an ability to communicate complex ideas in the plain language of the frontier. He also shrewdly polled public opinion.

Cutlip and Center (1964, 24-6) also write that good public relations was responsible for a backwoodsman by the name of Davy Crockett becoming famous, and that Phineas Taylor (P. T.) Barnum, the showman of showmen, used public relations to "make" his big show.

Between 1875 to 1900, during the ruthless development of industry, railroads, and utilities, the mass media of press and magazine had its impact upon the public relations profession. During this era "the public be damned" phrase was attributed to big business. This was a time when big business controlled the people, and there was no need for public relations to gain the people's favor as there was to be in the 1900's. This does not
mean that there were no public relations minded individuals before the 1900's. There were, and one of them was Jay Cooke, "the first to understand the psychology of mass salesmanship," (Cutlip and Center, 1964, 31). He applied this psychology during the Civil War when he sold war bonds for the Union by first selling patriotism and building a militant public opinion. According to Cutlip and Center, many of his techniques reappeared in the bond drives of World Wars I and II.

From the literature it appears as though the first organized practices of public relations occurred during the early 1900's when big business began to feel the need for public relations specialists to "get them in good with the public." This was the era of muckraking journalism. Big businesses such as Standard Oil Company, American Telephone & Telegraph Co., and the nation's railroads found it necessary to hire public relations firms to counteract the bad publicity they were receiving in the newspapers and magazines.

In 1904, Ivy Lee, considered by many to be the father of public relations, joined George F. Parker to organize in New York City one of the first public relations firms. The publicity for Grover Cleveland's three campaigns for the Presidency was directed from this office. In 1908, Ivy Lee became the Pennsylvania Railroad's first publicity agent. Lee's philosophy was that big business secrecy was the cause of suspicion; therefore secrecy must cease. An outcome of this was the following statement released to the newspapers by Lee explaining his philosophy of public
relations (Morse, 1906, 460).

This is not a secret press bureau. All our work is done in the open. We aim to supply news. This is not an advertising agency; if you think any of our matter ought properly to go to your business office, do not use it. Our matter is accurate. Further details on any subject treated will be supplied promptly, and any editor will be assisted most cheerfully in verifying directly any statement of fact. In brief, our plan is, frankly and openly, on behalf of business concerns and public institutions, to supply to the press and public of the United States prompt and accurate information concerning subjects which it is of value and interest to the public to know about.

Lee's career included being a public relations advisor to John D. Rockefeller Jr. and his Colorado Fuel and Iron Company; he advised the Guggenheims and their many interests, and many other famous family names.

Henry Ford also pioneered in public relations as well as in making and selling automobiles. He was quick to see the value of product publicity in selling mass consumer goods. Public relations specialists Cutlip and Center, write that "From 1908 on, Ford and his associates sought publicity, in sharp contrast to their shy business contemporaries of that era."

Another impact on the development of public relations occurred in 1917 with World War I, an event which brought out the talents of another famous public relations expert, George Creel. Creel, to support President Wilson, organized and operated an information campaign that kept the American opinion strongly against the Germans and in favor of American war policies.

Shortly after World War I in 1919, another famous public relations counselor began to influence the profession. Edward
L. Bernays worked under George Creel during World War I, and is given credit for coining the term "public relations counsel," which appeared in his book, *Crystallizing Public Opinion* published in 1923. Bernays, referred to as the dean of public relations, has the following to say about the profession (1955, 3-5):

> Public relations is the attempt, by information, persuasion, and adjustment, to engineer public support for an activity, cause, movement, or institution. Evidences of the power of public opinion prove to every man the necessity of understanding the public, of adjusting to it, of informing it, of winning it over. The ability to do so is the test of leadership.

> Competition for attention of the public has been continually broadened and intensified because the public decides whether an enterprise is to succeed or fail.

> The situation has become so complicated that leaders in most fields find that they need expert advice in dealing with their publics.

The increased emphasis being placed on public opinion and public relations is pointed out by Cutlip and Center (1964, 46) when they write about publications on the subject:

> There were some 18 books on public opinion, publicity, and public relations printed in all the years prior to 1917, but at least 28 titles were published between 1917 and 1925.

> A 1965 publication by Cutlip, *A Public Relations Bibliography*, lists over 5,938 publications directly related to public relations from the 1920's to 1964. Of this number, only 203 are in any way connected with education, and only two deal with industrial arts.

> This poverty of information on educational and specifically industrial arts public relations will be discussed later in this literature review.

> During the 1920's social scientists began to study the
nature of public opinion and the role of communications in its formation. Also during the 1920's, education first began to realize the importance of informing people about the schools and what they were doing. However, this realization was forced upon educators because the people were beginning to vote down funds needed to support educational institutions. This is also discussed in a later section of this literature review.

A new era in the development of public relations began in the 1930's when Franklin D. Roosevelt used a new communications medium, the radio, in his political success. The Office of War Information with public relations specialist Elmer Davis as its director set the stage for gaining public acceptance of United States War policies. This was a greatly expanded version of that used in World War I. Public relations was used by industry to promote productivity and to combat absenteeism, and by the government to sell war bonds once again.

The latest uses of public relations to form public opinion include the presidential campaigns of Eisenhower, Kennedy, Johnson, and Nixon. It includes large fund raising efforts by the United Fund, Red Cross, and others each year. The competition for the public's dollar by business and industry has never been greater than it is now. Colleges and universities across the country now offer courses in public relations, the first of which was offered in 1926. Four out of five big businesses and industries have their own public relations department or contract to an outside firm. Public relations is everywhere the public looks--on television,
radio, newspapers, highways, etc. From the literature, it is evident that today business and industry consider public relations a necessity for successful operations.

The purpose of this brief literature review of public relations has been to provide some reference points for the reader as the evolution and current status of school public relations is discussed as the literature presents it. The importance big business and industry have placed on understanding and forming public opinion has been presented; the next section of the literature review will discuss how education has fared in its attempts to understand and form public opinion in its favor.

Summary

1 A. The literature reveals a lack of research performed under the heading of public relations. However, for the most part, business and industry have financially supported research under the headings of "public opinion," "communication," "persuasion," and other such topics, each of which plays an important role in successful public relations. What the literature reports for these topics will be discussed later in this chapter.

1 B. The public relations profession in the United States can be traced back to early colonial days. However, the first signs of organized public relations practice occurred in the early 1900's.

1 C. Some reasons for the establishment of organized public relations practice were the pressure on the railroad industry to
inform the public about its practices in the late 1800's and early 1900's, the necessity of publicity for presidential campaigns in the twentieth century, the desire of big business to inform the public about its practices in order to win their support for its products, and the need for public support of the United States government's policies during World War I and II.

2. Educational Public Relations

Public relations is a comparative newcomer to the tasks realized by educators in general, and educational administrators in particular. It was shortly after the end of World War I in 1919 that publications on the need for educational publicity began to appear on the scene. The major reason for this "appearance" was the public's clamoring for a reduction in school expenditures, while the educators wanted an increase in expenditures to support needed school building programs because of the population explosion.

By far the most productive author on school publicity at this time was Carter Alexander, considered by many to be an educational authority. His book, *School Statistics and Publicity* (1919) was one of first educational publications on the topic of school publicity. Two years later in 1921, he coauthored with W. W. Theisen a book entitled, *Publicity Campaigns For Better School Support*. A review of the bibliographies in both of these publications, as well as a "Selected Biography on School Publicity," (Vogelin, 1924), shows that there was a limited amount of information available in the early 1920's on school publicity.
Both of Carter's publications concerned "selling" the school to the public rather than "informing" the public about what was happening in the school. The early attempts at school public relations activities as outlined by Cubberly (1929, 238-9) emphasized the one-way direction school administrators followed in publicizing education.

By conferences, public and private, with leading citizens; by talks to parents at meetings at the schools; by taking the leaders among the teachers into his confidence; by dealing frankly and honestly with the press and the public; by his own written and spoken word, especially in his annual printed reports, and by inciting others to write and speak; and by tact and diplomacy mold such a public opinion that the recommendations which he makes will go without serious question, and be readily accepted by the people of the community.

It is evident from the literature that this same one-way direction is occurring even today. Writing as the editorial advisor to Nation's Schools, Rice (1965, 14) states:

One reason for this (poor public relations) is the evolution of the wrong theory of public relations--i.e., the PR sales pitch that is getting us deeper into trouble.

Another example of the type of school publicity material published in the 1920's is a monograph by P. R. Stevenson (1926) entitled, Manual of Campaign Publicity For Schools. Working in the Bureau of Educational Research at The Ohio State University, Dr. Stevenson compiled materials from Ohio school districts and some outside of the state and explained what these districts were doing for publicity. This material in turn was then given to other school districts as "good" publicity material. Stevenson evidently functioned under the theory of "what works for one,
will work for all," a misconception that is still being applied today as will be seen in the latter stages of this literature review.

One of the more complete annotated bibliographies of research concerning school public relations was compiled by Pearson (1956) for the period 1927 through 1954. He analyzed fifty-one periodicals, twenty-seven research reports for books and yearbooks, two mimeographed reports, and 120 unpublished dissertation studies. From these he drew significant comparisons and contrasts.

Pearson reported that in the ten years preceding 1927 the few studies which he located were conducted under the terminology of "educational publicity." From 1940 to the end of his study in 1954, he traced a trend in which research studies emphasized the determination of public opinion, lay participation, education planning, and the role of specific agents in school public relations. A major weakness in most of these studies pointed out by Pearson is that the research was mainly with what was being done, rather than with the effectiveness of what was done in school public relations. The reader should consult Stevenson (1926) and Pearson (1956) for a comparison of research techniques.

Charters' (1969, 1030) analysis in the Encyclopedia of Educational Research, reinforces and updates Pearson's comments on research in school public relations.

From the 1920's on, the flow of articles, reports, yearbooks, texts, and books of readings on school public relations has continued unabated until the volume of writings has now assumed monumental proportions. Education Index, since its inception in 1929 has covered the literature regularly under the entries of "Publicity," "Public Relations," and "School-Community Relations."
Much of the literature consists of recommendations of practices, reports of "successful" techniques, instructions on such matters as preparing newspaper copy or conducting American Education Week, and general encouragements of school personnel to become "public relations-minded." Only a fractional part of the literature is devoted to reports of empirical research in even the loosest sense of the term.

This paucity of basic research to guide the educator in school public relations has not slowed the output of publications on the subject. For the most part, these publications, accepted and used by educators, are written by educators, usually administrators. If one accepts the writings of such public relations specialists as Cutlip and Center (1964), Bernays (1955), and others mentioned in the first stages of this literature review, then one must also raise the question, "Is the educational administrator the best person to tell others how to publicize education?"

Project Public Information (Stiles, 1968), a federally supported effort administered by the Wisconsin Department of Public Instruction, questions the qualifications of school administrators to be public relations agents. Pearson's research, mentioned earlier, disclosed that it is educational administrators who are the leading agents of school public relations. One of the national studies conducted by the Project Public Information staff resulted in the conclusions that school administrators are not qualified as public relations agents because they do not receive adequate training in the subject, and what they do receive is from professors of school administration rather than specialists in communications. A second conclusion was that colleges are negligent
in offering adequate training programs for school public relations, and nothing documents better the neglect of educational public information than the dearth of research on problems in this field.

A review of the literature seems to point out that there are questions to be raised regarding the qualifications of those supply information which is not only being accepted by many educators, but followed by them as they attempt to present their schools to the public.

Further support is given to this question of qualifications by Gross (1958, 104), who spent a year at Harvard University studying school systems in Massachusetts. He found that public relations is the one task area where fewest school board members think that their superintendent is doing "excellent." Superintendents themselves admitted to doing only a "fair" or "poor" job of public relations. Gross feels that this finding alone could account for much of the criticism of the public schools, and for many of their perceived inadequacies. He states (Gross, 1958, 104):

It does not matter how good a job a superintendent is doing in other areas, or how far the education his school system provides excels that of other systems, if he keeps it a secret from the public, either because he does not have the time or because he does not have the skill to carry out an effective public relations program. The public is going to be at the very least suspicious and more likely quite dissatisfied. It seems to us that public relations is the one area of school administration in which the school superintendent cannot be less than excellent and hope to provide his community with an educational system with which it will be satisfied.

Based on evidence gathered in his study, Gross (1958, 141) forms a serious indictment of the superintendent's ability to
provide the leadership necessary for an effective public relations program.

Too few superintendents have been able to get the educational story across to the people. Too few of them have been able to demonstrate and to convince parents of the negative consequences for their children of the inadequacies of existing school programs. Too few of them have been able to fire the imagination of the school board and the community with the great benefits that would accrue from a first-rate educational program. Too few of them have tried to build strong bonds between the schools and the community.

A study by Fountain (1958) reinforced the conclusions of Gross. He found that, "North Carolina school superintendents generally accept as a fact that the quality of the public schools depends upon the level of understanding and support given the schools by the citizens of the respective communities." He also found however, that, "most local administrators do not use all the available techniques for interpreting the schools to the public, probably because of insufficient training and lack of time and other resources."

The use of many techniques to flood a community with information is not the answer either, according to Simpson, (1964, 5), who questions the effectiveness of extensive public relations programs. Reporting on a study comparing ten public relations practices with voter responses to school elections, Simpson concluded that, "there was no statistically significant relationship between publicity and success in school elections." He added that, "... a comprehensive publicity program beamed toward lay groups leads educators into a feeling of complacency—a sense of false
security which may be harmful to the educational program itself.

A national study conducted at the Institute For Communication Research at Stanford University supports the theory that increasing the volume of information released to the public does not necessarily mean that the effectiveness is increased. The director of the study, Richard Carter (1960, 238), reporting on a nationwide study dealing with the understanding that exists between communities and their schools, states:

In conclusion, we feel that little is to be gained from any simple attempt to increase the informational output of schools. Specific questions can, and should, be answered. Schools should be receptive to enquiries and attempts to understand. But the more effective use of communications requires a pair of necessary conditions: values in the audience that turn constructive attention toward the schools, and a social environment that facilitates participation—if not directly in school affairs, then in active response to the need for understanding between schools and community.

In order to reach this conclusion, Carter and his staff interviewed and had questionnaires completed by thousands of people across the nation. Essentially, the survey asked the people where they got their information about the schools and their perception of the schools. Further questioning revealed that most of the respondents had very little or no information about their schools.

Summary

2 A. There is a paucity of empirical research to guide the educator in the area of school public relations. Most of the research that does exist in this area consists of nothing more
than surveys of what is taking place.

2 B. For the most part, the literature available about school public relations has been written by school administrators, who are some of the first to admit their limitations in this area because of lack of time and educational preparation. But even with their limitations, these authors are accepted as "authorities" on school public relations by most educators.

2 C. School public relations practices had their organized beginnings in the early 1920's, where these practices consisted, for the most part, of a few publications by Carter Alexander and one or two other "influential" educators.

2 D. The theme for the publicity programs in the 1920's was "to sell" the school program to the public, rather than to "inform" the public and seek their support. This is still the case in many school public relations programs today.

2 E. Studies have shown that the most successful school public relations program is carefully planned and carried out. Flooding a community with information does not necessarily mean that communication is taking place between the school and community.

3. What The Public Knows About The Schools

The literature has accused educators of keeping things from the public on one extreme, and loading them up with information on the other. To discover just what the public does know about
education, this investigator reviewed the literature on public opinion about education. The majority of that which was reviewed made a sad case for school public relations programs.

Writing in the Administrator's Notebook, Haak (1956) discussed a number of research findings about the public's opinion of the schools. A few of the findings pertinent to this study are: 1) there is considerable ignorance on the part of the public about their schools; 2) educators feel that the more the public knows about the schools the more favorable its opinion of them will be; and 3) the opinion which the general public has of the schools is more important than its knowledge of public education.

The solution to finding one above, seems to involve doing a better job with findings two and three. However, the caliber of the job being undertaken along these lines is reported in a doctoral dissertation by Colon (1961). His investigation revealed that only a few of the schools studies were utilizing in any comprehensive manner the recommended devices and techniques to interpret the school to the community. The majority of the public relations programs examined were unorganized or casually organized, sporadic, poorly planned, and equally poorly executed. No mention is made by Colon of what he means by "recommended devices and techniques."

In 1966, a Gallup Poll surveyed parents' attitudes toward education in their child's school. According to the poll, well over half of the parents were familiar with one or more new educational practices being undertaken in public schools across
the country. Some of the innovations they had read or heard about were: new math, nongraded schools, new reading systems, teaching machines, films, visual aids, and team teaching. However, many of the parents who had read or heard about these practices did not know whether they were being tried in their child's school. In fact, forty-two percent of those responding checked "no answer" for the question concerning knowledge of educational practices, which would include those in their child's school.

A more comprehensive version of the poll conducted by Gallup in 1969 arrived at basically the same conclusions. The people knew little about their schools, but the poll also found that the people wanted to know more about what was happening in the schools, particularly in the different curriculums.

This desire by parents to know more about the schools is typical of that found in many studies. Banfield et al. (1966) studied two communities to discover what parents knew about modern trends in education. From this study they concluded:

From the results obtained, the majority of parents are concerned about their children's education. However, there was much to indicate that not enough information is being given to the parents—on school matters . . .

The majority of the parents involved in the surveys appeared to want closer contact with the schools where their children are being taught.

As with many of the other areas of school public relations, there is little research relevant to what the people know about the schools. The research which has been undertaken deals for the most part with "surveying" what is being done to inform the
public, rather than testing the effectiveness of what is being done. The studies mentioned earlier by Simpson and Carter point up the problems created by this lack of statistical information.

Since it is evident from the literature that school public relations programs are not getting their message across to the public, it would be appropriate to consider just who this public is.

Summary

3 A. There is a scarcity of empirical research relevant to what people know about the schools. What is being done has been abundantly surveyed, but little research has been geared towards finding out whether the techniques being used are effective.

3 B. Some studies conclude that the opinion the public has about the schools is more important than its knowledge of public education.

3 C. The public is uninformed regarding educational programs in the schools; however, studies and surveys have shown that they desire information about curriculum content, teaching methods, and other areas of their school's program.

3 D. A large number of school public relations programs seem to be doing a poor job of communicating their school activities and purposes to the citizens of their communities.
4. Who The Public Is

Writing in *The American School Board Journal*, Penk (1965, 20), raises an interesting point about the school's public:

Contrary to popular thought, there is no single community audience or public. Instead there are many publics. They are 1) Faculty and staff, 2) Student body, 3) Former students, 4) Prospective students, 5) Parents, 6) Business community, and 7) Taxpayers.

In light of Penk's information, the literature was reviewed to cover all phases of audience characteristics.

Gross' (1958) study in Massachusetts provided some information about the potential characteristics of a school's audience. The following types of people were named by superintendents as possible blockers of educational advancement in their schools. Thirty-eight percent felt it was community officials; thirty-six percent expressed the view that it was businessmen, with taxpayer groups running a close third. Other people mentioned were, older residents of the community, individuals with grudges, religious groups, newspapermen, and the "private school crowd."

When asked to name those who support their schools, the superintendents named the following: sixty-nine percent named the PTA; forty-seven percent named community officials; thirty-nine percent named businessmen, and twenty-seven percent named housewives. Others named were service clubs, school boards, professional men, and Protestant clergymen.

Some of the rationale as to why members of the same group of people (audience) in a community might be both for and against the educational program is provided by Mayer (1953) in his discussion...
on the theory of social classes. He expresses the view that an individual's vested interests will play an important role in his support of education. Examples of the vested interests named by Mayer are the financial costs of education, and the economic and social benefits of the school system to himself and his family.

This information provided by Gross and Mayer suggests that for the most part, it would not be an easy task to determine whether community officials, businessmen, or some other people in the community would readily accept school information or reject it. Because of this, it is quite possible that the school public relations agent (school administrator or others) would benefit most from having available information on what audiences, (school public, communities) consist of. But once again there is little research in school public relations to guide the educator. However, social science and communication provide abundant information on audience characteristics, and it is to these areas that this investigator has turned for the next phase of the literature review.

In communicating an idea or information to others there exists a strong possibility of not having direct contact with everyone who should receive the message, as is the case with three of the four information dissemination techniques being studied here. When this lack of direct contact is a possibility, Katz and Lazarsfeld (1955, 15-30), present a number of guidelines which they arrived at after reviewing numerous studies.
1. Each social stratum generates its own opinion leaders—the individuals who are likely to influence other persons in their immediate environment.

2. In each social stratum the opinion leaders are more likely to expose themselves to information especially tuned to their level of education and interest.

3. There are exceptions where younger people look to older people for answers and opinions.

4. Opinions and attitudes are often generated and/or reinforced in small intimate groups of family, friends, and co-workers.

5. Families, friendships, work-groups and the like are interpersonal communication networks through which influences flow in patterned ways. The leader is a strategic element in the formation of group opinions.

6. It has been found that educational programs are very unlikely to reach the uneducated.

Katz and Lazarsfeld (1955, 32-4), also present the two-step flow of communication concept for consideration. They report that studies have shown that the media tend to influence opinion leaders on every social and economic level. These people in turn influence the less active sections of the population within their same social and economic levels. Therefore, it is important to know who these opinion leaders are, and to know how to reach them.

Summary

4 A. While educational research is lacking on audience characteristics, the social sciences have an abundance of empirical data available, some of which is presented in the next sections of this literature review.

4 B. The school's public is composed of people of varied
interests, abilities, social levels, and professions. Each of these groups has their own opinion leaders who will interpret the educational message and pass on their interpretation of it to "their" followers. It is important to know who these "opinion leaders" are.

4 C. It is not a simple task to know who will and who will not support the school and its operations. Some of the public's characteristics mentioned in 4 B will be responsible for an individual supporting or not supporting the school and its program. Communication characteristics discussed later in this chapter will also have a strong bearing on the public's level of support they give to education.

5. Characteristics Of The Public

Writing about the psychology of communication as it applies to the receiver (in the case of this study, the receiver is the public), Stewart (1968, 13-4) states:

Communication is concerned with the deliberate, intentional use of physical symbol complexes for the very purpose of eliciting specific meanings in the mind of another human being.

The purpose of school public relations is to present information to the public (receiver) that is both acceptable and informative. However, it is the "specific meanings" interpreted by the public as mentioned by Stewart, which studies show seem to require sound information if the public is to form desirable opinions of the school. Communications specialist Berlo (1960, 175), feels
that this necessary meaning cannot be determined by the message sender, educational administrator, public relations agent, etc.

Communication does not consist of the transmission of meaning. Meanings are not transmittable, not transferable. Only messages are transmittable, and meanings are not in the message, they are in the message users (audience).

In a later publication, Berlo (1963, 376) once again emphasizes the importance of understanding meanings as they relate to symbols in communicating a message to the public.

The communication position is that meanings are not contained in the symbols used but are found in the people who produce and receive these symbols. There are no right meanings for a symbol. There only are whatever meanings the people have.

A number of studies have produced evidence that there are many reasons why a message can be interpreted differently by different people. Katz (1960, 320), has found in some of his studies that, "Because language is symbolic in nature, it can only evoke meaning in the recipient if the recipient has experiences corresponding to the symbol." The ethnic group to which an individual is a member of will have some effect upon the experiences mentioned by Katz. In studying ethnic terms, Stedman (1969) found that certain terms used in communication will vary in meaning according to the ethnic group receiving the message.

Regardless of the ethnic group, community interest group, or other groups or individuals, studies have shown that very few people are receptive to an entire message. Typical of the reports in these studies is Dale's statement (1969, 17):
Messages are also distorted by the receivers. They "screen out dissonant features—features which are apt to disturb preconceived images." Receivers see what they want to see, hear what they want to hear, distory messages unintentionally. There is selective perception.

A study by Hyman and Sheatsley (1947, 412-23) of why information campaigns fail, revealed that people interpret a message according to their attitudes toward the subject being communicated, as well as their immediate need for what the message offers. This is the selective perception Dale spoke of.

Attitudes of people is a popular topic in studies which have been conducted. Reporting on some of the studies dealing with audiences and their attitudes, Becker (1969, 42-3) writes:

Research indicates pretty clearly that if those who are exposed to media messages which alter their attitudes do not find support for these new attitudes in their interpersonal contacts or among their reference groups (the groups to which all of us look for cues as to how to behave or for support in our attitudes), they will quickly discount the messages.

The importance an individual places upon his reference group will have a strong bearing on how he interprets and reacts to a message, is one conclusion drawn by Back (1951, 9-24), in his study on influence of messages. This, and other studies about communication, message design, and audiences indicate that a message is rarely interpreted the same by a number of people. In fact, Hyman and Sheatsley (1947, 412-23) question whether some people even receive the message. They state that a certain proportion of the population is "not aware of anything" and there is something about these people that makes them hard to reach. The study does show
that interested people acquire the most information; however, this information must be geared to their interest. These people will select material in accord with their own taste and bias, and exposure to the material does not necessarily mean that all people will interpret it the same.

From the literature reviewed so far, it can be seen that people often receive messages differently; if they receive it at all. Schramm (1948, 2) notes some of the reasons why these differences exist. "The typical community has become heterogeneous and massive. Industrialization and fast transportation have made more changes in social patterns in one lifetime than were formerly made in centuries."

For the most part, the literature stresses that it is essential to "know your audience" in order to successfully communicate information to them. One way of knowing the audience is through feedback. Dale (1969, 10) writes, "... communication involves interaction—the give-and-take that provides feedback to persons involved in exchanging ideas."

The methods of obtaining this feedback vary, but the most successful seem to be opinion surveys, which are discussed in the next section of this literature review.

Summary

5 A. It is important to remember that the meaning of a message will vary according to the group or individual who receives it.
5 B. Studies have found that the following characteristics play an important role in message interpretation by the receiver: ethnic group membership, educational background, prior experiences, and current feelings about the content and source of the message.

5 C. In many cases the public only "receive" those parts of a message they want to receive.

5 D. The public will refuse to "receive" a message which does not support their current attitudes in some manner.

5 E. There are some people who do not receive even parts of a communication.

5 F. To communicate effectively, the communicator must know his audience. One way of accomplishing this is "feedback," or two-way communication.

6. Surveying Public Opinion

Reviewing the literature on surveying public opinion reveals a wealth of information on the topic. The nature of public opinion is best described by Lasswell and Kaplan (1954, 68), two men experienced in public opinion work.

Public opinion comprises all of the opinions maintained by various parts of the public in question, as well as a specification of the parts having no opinion. When "public opinion" is spoken of in the singular, some one dominate opinion is referred to. The indices by which dominance has been determined must be specified. The dominant opinion is not necessarily the majority opinion; the opinion of an influential minority may be that which is actually effective.
Lasswell and Kaplan warn that the majority opinion is not necessarily the dominant opinion; public opinion specialist Dobb (1948, 3) expresses it differently when he says that, "Some information about people is worse than no information at all only when it is misleading information."

Misleading information is what another public opinion specialist, Childs (1965, 160-1), is talking about when he cautions those who interpret opinions of people in authoritative positions.

In general, the basic views of men and women in positions of responsibility and authority are often those acquired by them twenty to thirty years previously.

Although they each offer cautions about interpreting public opinion, none of the researchers mentioned above says anything to lead one to believe that knowing public opinion has little value. In fact, throughout the literature, understanding public opinion is stressed for individuals or groups who must constantly deal with the public, as is the case with the schools.

Shosteck (1967) found that a survey is not always necessary to determine the public's attitude towards education in their schools. After studying the role of socio-economic conditions in supporting public education, he concluded that community sentiment supporting public education will be expressed in the economic resources which they provide (by vote, etc.) to the functioning of the educational program.

Two publications, *School-Community Attitude Analysis for Educational Administrators* by Bullock (1959), and *What People Think*
About Their Schools by Hand (1948), are typical of the limited number of publications which deal strictly with community analysis for school use.

Bullock reports on a study performed by The Ohio State University School-Community Development Study in which measuring instruments for analyzing community feelings were developed. The need for such an instrument, as expressed by many educators, is stated by Bullock (1959, 11) as:

Few people in a school-community are able to evaluate the manifold aspects of an education institution objectively and summarize their judgments in a single estimate of merit. School patrons and community members do, however, become aware of, and render judgments about, certain specific aspects of the school: its personnel, its policies, and its program.

Bullock goes on to stress the importance of knowing what these opinions are in order for the educational program of a school to function in a meaningful manner for everyone.

Hand expounds on Bullock's statement by saying that when operating a school public relations program it is vital to know what the public is thinking, as well as how they might react to different kinds of information releases. He expressed the view that guessing should be eliminated from any good school public relations program (Hand, 1948, 6).

If trouble is to be avoided, the head of the school must maintain some sort of workable equilibrium among the forces generated by the divergent desires and expectations of the pupils, the parents, and the teachers. Consequently, he must know in what respects and to what degree the pupils and the parents, the pupils and the teachers, and the parents and the teachers, respectively, agree or disagree as to 'what ought to be' and 'what should be' done.
Throughout his study, Hand discusses how to conduct the survey, analyze the findings, and report the findings. Charters (1969, 1031), in the Encyclopedia of Educational Research, expresses the view that the survey instruments used by Bullock and Hand are inadequate because, "These instruments, however, have not been subjected to the extensive and critical methodological analysis that are required to justify widespread use."

A survey of the literature shows strong agreement with Charter's thinking that educators design, at the best, survey instruments adequate only for limited use. The feeling seems to be that the social scientists are best qualified in this area.

Two sociologists, Oppenheim (1966) and Phillips (1966), provide information typical of that available in the literature for application in performing a survey. Whereas Phillips' publication discusses the entire survey process from start—research methods—to finish—analysis of data, Oppenheim deals strictly with the design of the survey instrument. To arrive at their conclusions both authors draw from tested research in the area of surveying the public.

Specific information about sampling procedures is provided in detail by Kish (1965), Cochran (1953), and Hanson (1953); and practical examples of conducting a survey are discussed by Lazarsfeld et al. (1948), Stouffer (1955), and Gallup (1969).

In The People's Choice, Lazarsfeld, Berelson, and Gaudet discuss the empirical data and collection techniques which they applied in their study of voters' habits in Erie County, Pennsylvania.
They also warn of the dangers of applying the results of a survey conducted in one area to predictions about another area. The importance of replication is stressed, before any general judgments can be made from the analyzed data.

Stouffer's study dealt with examining the reactions of a national sample of the American public to the threat of Communism thought to exist in 1955. Whereas the sample was only one county within a state for Lazarsfeld, Berelson, and Gaudet's study, this one involved the entire United States. Stouffer presents in detail all aspects of the survey and emphasizes his findings by comparing them with similar studies performed before this one.

These studies, and many more like them, are presented in the literature as examples of practical experiences of public opinion surveying. One of the latest and most closely related ones to the study being performed here, is that of Gallup (1969). The study, How The Nation Views the Public Schools, used trained interviewers to interview a modified probability sample of the nation on their attitudes toward the public schools. A similar study was conducted by Gallup in 1966 on parental attitudes of their child's school. The "Communication With The Public" phase of the 1969 study asked a series of questions about different media and the kinds of information received and the kind of information the public would like to have. Thirty-five percent of those polled replied "yes" when asked whether they had received a newsletter, pamphlet, or any other material during the past year telling what the local schools were doing. Sixty percent of those polled
reported that they had read articles in the local newspapers during the past month about the local schools. When asked whether they would like more information about the schools in their community, nearly two-thirds (65%) said "yes." The public most desired information about curriculum. Both studies concluded that the public is uninformed as to the educational practices in their local schools and that they would like to receive more information about the schools.

The studies which have been presented in this phase of the literature review are typical of the many which are available. The literature always assumed that to communicate with the public, it must be understood. How to acquire the necessary information about the public so that it can be understood and communication can take place, was the reason for becoming familiar with opinion surveys. It is now necessary to acquire an understanding of the principles of good communication that would enable the school public relations agent to successfully communicate with the public.

**Summary**

6 A. The dominant opinion is not necessarily the majority opinion; the opinion of an influential minority may be that which is actually effective.

6 B. Individuals or groups who constantly deal with the public must understand public opinion.
6 C. The support—economic, physical, verbal—the public gives their schools is one indication of their opinion about it.

6 D. School public relations programs should not depend upon guessing about what the public is thinking.

6 E. Educators are not adequately trained to perform effective community surveys. This is a job for the social science personnel.

6 F. The results of surveys undertaken in one area should not be generalized to other areas without sufficient evidence that the generalizations are true.

6 G. An opinion survey by Gallup found parents to be uninformed about their children's schools. However, the parents did want to know more about the schools, especially about curriculum, teaching methods, and discipline.

6 H. To communicate with the public, the communicator must understand the public.

7. Communicating The Message To The Public

In order for information to successfully pass from the school to the community it is necessary to have good communication. Writing about the communication process in the Journal of Communication, Cartier and Harwood (1953, 74) state, "Communication is a process of conducting the attention of another person for the purpose of
replicating memories." They add:

The important thing to remember is that the replica-
making process is performed by the listener (audience)
and not by the speaker (school). The speaker can
only use language to conduct the wanderings of the
listener's attention to memories and/or stimuli in
a planned sequence so that the listener may discover
relationships between them of which he was not
previously aware.

There is more to communication than just "conducting the
wanderings" of an audience. In any school public relations program
communication should have a favorable effect on the public.
Berelson (1960, 531-2), who has been involved in numerous public
opinion studies, has the following to say about communication and
its effectiveness on influencing public opinion.

The effectiveness of communications as an
influence upon public opinion varies with the nature
of the communication.

First let us deal with the effect of certain
media characteristics. The more personal the media,
the more effective it is in converting opinions.
This means (other things being equal) that personal
conversation is more effective than a radio speech,
and that a radio speech is more effective than a
newspaper account of it. The greater the amount of
"personalism" the communication act contains, the
more effective it presumably is. Recent analysis
have confirmed the critical importance in opinion
formation of personal contact between the individual
and his fellows.

There is more to an effective communication than just the
media. After a number of studies in this area, Hovland (1957, 1)
at Yale University arrived at these conclusions: "Many factors
influence the effectiveness of a communication: the reputation of
the communicator and of the medium which he employs, the receptivity
and predispositions of the audience, the actual content of the
message, and importantly, matters of organization and procedure."

The process of communication has been supplied with an abundance of models, one of the earliest and simplest of which is Lasswell's, who concludes that to communicate one must ask (1948, 37):

Who
Says What
In Which Channel
To Whom
With What Effect?

A later communication model was designed by Schramm (1954, 3), who feels that when people communicate they are trying to share information, an idea, or an attitude. He expresses the view that communication requires at least three elements, 1) a source, 2) a message (signal), and 3) a destination. The following model is provided to clarify his viewpoint (Schramm, 1954, 4):

![Fig. 1. Schramm's model of the human communication system.](image)

In explaining the model, Schramm writes (1954, 4), "Consider that the 'source' and 'encoder' are one person, 'decoder' and 'destination' are another, and the signal is language, and you are talking about human communication." For communication to be successful he lists four conditions which must be fulfilled (1954, 13):

1. The message must be so designed and delivered as to gain the attention of the intended destination.

2. The message must employ signs which refer to experiences common to source and destination, so as to "get the meaning across."
3. The message must arouse personality needs in the destination and suggest some ways to meet those needs.

4. The message must suggest a way to meet those needs which is appropriate to the group situation in which the destination finds himself at the time when he is moved to make the desired response.

Along with the source of message, encoder, channel, decoder, and destination which make up many communication models, Shannon (1949, 5), includes the element of noise.

![Shannon's diagram of a general communication system.](image)

This noise represents possible interference that the communicator should be aware of if successful communication is to occur. What this noise could consist of is best explained by Kemp (1968, 11-2), who writes:

Noise is any disturbance that interferes with or distorts transmission of the message. The factor of noise can have serious impact on the success or failure of communication. Static on a radio broadcast is a simple example of noise. A flashing light can be a distracting "noise" when a person is reading a book. Ambiguous or misleading material in a film can be deemed noise. Noise can be created internally, within the receiver, to upset satisfactory communication—for example, a lack of attention. Even conflicting past experience can be an inhibiting noise source. Recall the importance of an individual's background experience in affecting perception. Noise clouds and masks information transmission to varying degrees and must be recognized as an obstacle to be overcome.
The relationship of communication with message, channel, and receiver is explained in detail by Berlo, who developed one of the most widely used communication models, often referred to as the S-M-C-R Model (1960, 72):

![Diagram of S-M-C-R Model](image)

Writing about the model, Berlo states (1960, 73):

The Source-Message-Channel-Receiver model of the communication process emphasizes the importance of a thorough understanding of human behavior as a prerequisite to communication analysis. If communication is intended to affect behavior, we need to understand the variables and processes underlying behavior and behavior change. Although we separate the source from the receiver in our communication model, anything we learn about one applies to the other—the source and receiver are corresponding systems. Both are human organisms who exist in similar states. An analysis of behavior from a communication point of view applies equally to communication sources and receiver.

The early publication of Berlo's model did not include the "feedback" loop shown here. Berlo added it later, and its importance
is stressed from a study by Leavitt and Mueller (1951, 410), who write, "A completion of the circuit between sender (source) and receiver increases the accuracy with which information is transmitted."

The role of feedback, which could be in the form of an opinion survey, is further explained by Kemp (1968, 11):

Effective communication depends upon the receiver being active. He reacts by answering, questioning, or performing, mentally or physically. There is then a return or response loop of (the) cycle, from receiver to sender. It is termed feedback. Feedback enables the originator to correct omissions and errors in the transmitted message, or to improve the encoding and transmission process, or even to assist the recipient in decoding the message.

In order to make effective use of the feedback information there are certain communication characteristics which the communicator should be aware of. Hovland and Weiss (1951, 635-50), point out the importance of having a trustworthy communicator present information. In their study, people discounted material from "untrustworthy" sources although the amount of factual information acquired was the same from both sources. The subjects also changed their opinions in the direction of the "trustworthy" communicator. A replication of this study by Schwietzer (1967) produced the same conclusions. Besides being trustworthy, Berscheid (1966, 670-80), found that the more a communicator is similar to his audience, the greater will be the acceptance of the message by the audience.

To facilitate acceptance of a message, Hovland and Mendell (1952, 581-8), found that the communicator should draw the conclusions for the audience. Their study produced evidence that people are much more likely to accept the communicator's message
when he draws the conclusion for them than when he provides the
information and lets the audience decide what to do.

The use of visuals in a communication can create problems
the communicator may be unaware of. McFee (1969, 199, 202), a
person experienced in the uses of visual materials, writes:

. . . an individual responds cognitively with conscious
awareness to only a small part of the visual information
that is reflected on the retina of the eye.

People need to make order; to group or pattern
visual information so they may see objects.

In essence, she is saying that just as much care must be
given to the design of visual materials, as verbal or written
materials, when sending a message. Her theory is supported by a
number of studies in visual communication.

Hovland, Janis, and Kelley (1957), discuss many communication
studies which they as well as others have performed. The conclusions
they draw are numerous. Some that would apply when communicating
with a school's public are:

1. The effectiveness of a communication is commonly assumed
to depend to a considerable extent upon who delivers it.

2. Fear-arousing appeals tend to decrease the over-all
success of communication.

3. The higher the individual's social rank in the group,
the lesser the pressure on him to follow group opinions.

4. Persons with high intelligence will tend—mainly because
of their ability to draw valid inferences—to be more
influenced than those with low intellectual ability when
exposed to persuasive communications which rely primarily
on impressive logical arguments.
5. Persons with high intelligence will tend—mainly because of their superior critical ability—to be less influenced than those with low intelligence when exposed to persuasive communications which rely primarily on unsupported generalities or false, illogical, irrelevant argumentation.

6. Extraneous rewards can influence the acceptance of a communication.

7. Changes in opinion induced by direct personal experience are thought to be even more lasting than those produced by mass media.

8. Most studies indicate that there is an initial period of rapid forgetting of verbal material, followed by a more gradual decrease until an asymptote is reached where little further loss occurs.

9. Some of the factors effecting retention of different content are the degree of meaning the communication has for the listener, its vividness, and its emotional overtone.

10. Remembering something to the point of being able to recognize that you have seen or heard it before is much easier than remembering the message verbatim.

11. The extent to which communications will be retained would be expected to be affected to a significant extent by the motivations and interests of the audience. These will affect not only the quantity of material which will be retained but also certain qualitative features of what is retained.

12. In addition to the forgetting of the content of the communication, there are changes over time in the degree to which the communicator's message is accepted.

13. One of the most important factors effecting the extent to which a message in a communication is accepted is the attitude of the audience toward the communicator.

14. Depending on how other individuals react who are told about the material, the original acceptance may be either augmented or diminished.

15. A person soon forgets the ideas he has learned which are not consonant with those of the socio-economic and educational group to which he belongs.
There seems to be some question of the effectiveness of single as opposed to multiple exposures of a message. Klapper (1963, 67) expresses the view that a message should be designed for multiple exposure. He writes that a single communication is unlikely to create any change in the established opinions and values of the people. Even more important is the fact that this communication might reinforce these opinions and values because most people select the exposure of information that favors their way of thinking. Disagreement comes from a study by Horowitz (1969, 34–7), which reveals that increasing the number of exposures to a persuasive communication did not change the respondents attitudes.

Empirical research is not reviewed without receiving a caution that social conditions can very easily vary from conditions established to conduct an experiment. While reporting on a number of research studies, Klapper (1954, 104), writes:

Laboratory experiments, which due to their rigid conditions of control differ markedly from social situations, indicate

a. that combined use of aural and visual presentation elicits better retention of simple and brief material than does the use of either method of appeal alone;

b. that aural presentation of whatever sort elicits better retention of simple and brief material than does visual presentation;

c. conflicting findings regarding the relative effectiveness of visual and aural presentation in eliciting retention of lengthy or complex material. Other, extra-laboratory researches suggest that the reading skill of the audience may be a major criterion. It is possible that for the highly educated or for those with high reading skills, print may be the more effective medium while radio may be more effective for those
of lesser reading skill;
d. that face-to-face discourse is a more effective persuasive agent than is transmitted voice, which in turn is more effective than print.

When information is to be presented to a mixed group, as is the case with most school public relations material, the initiator of the message must consider the various ability levels of the audience. According to Schramm (1954, 21), a message designed for group audiences must be geared to fall slightly below the understanding ability of the estimated average of the audience. This will permit some of those below the average to understand and will raise the power of the message. But Schramm warns that one should be cautious not to insult the intelligence of those above the average.

The area of communications is not lacking in empirical research as was shown in this section of the literature review. Should the school public relations agent apply the findings of these studies, there is little doubt that his program would be productive. The next step in the literature review is to see which techniques a school public relations agent can use to inform the public.

Summary

7 A. The meaning of the message being communicated is determined by the receiver according to his prior experiences and emotional feelings.
The more personal the media characteristics, the more effective will be the message in converting opinions.

Factors influencing the effectiveness of a communication are: 1) reputation of the communicator and the medium he employs, 2) receptivity and predispositions of the audience, 3) content of the message, 4) similarity of communicator with the audience, 5) communicator should draw conclusions for the audience, 6) use of good visuals, 7) comprehension ability level of the audience, and 8) audience level the message is geared to.

Communication is comprised of four basic parts—sender, message, channel, and receiver. Two additional elements the communicator must be aware of are noise or disturbance and feedback.

Feedback is necessary if the communicator is to know whether and/or how his message has been received.

Intelligence level of the audience will have a bearing on how the message is received and interpreted.

There is disagreement about whether multiple exposures of a message are any more effective than single exposures.

Techniques Which Can Be Used To Inform The Public

For the most part, the empirical research available on how to inform the public—techniques of informing rather than
communication aspects discussed earlier—is nothing more than a
survey of what is being done, rather than research on what can
be done. The research available on what is done to inform the
public will be presented in the next section of this chapter.

The discussion here shall revolve around the literature
accepted by educators as being written by authorities in the area
of informing the public. With the exception of that written by
public relations and communications specialists, the reader is
reminded of an earlier caution about accepting educators as
authorities in the area of informing the public. Most of the
literature available in this area was written by these educational
"authorities."

An indepth review of material by "authorities" in the area
of school public relations reveals a listing of just about every
information dissemination technique imaginable. Refer to Figure 4
for a list of the techniques. These "authorities" make it a point
to recommend that a school employ as many of these techniques as
possible to convey information and increase the potential of the
information program.

According to a home-school communications study by Anderson
(1967), schools are continuously faced with the problem of
communicating with the public. In support of the idea of using
many information dissemination techniques mentioned above, Anderson
concluded that: 1) all types of information about the schools is
desired by the parents, and 2) no single source of communication
can adequately serve the community needs from school to home.
The two studies by Gallup mentioned earlier in this chapter arrived at the same conclusions.

The use of as many mediums as possible is strongly recommended. One of the educational public relations "authorities," McCloskey (1967, 134), in a few words presents a strong argument on the use of all available media to inform the public on school matters.

This principle (use of all available media) grows from the previously stated facts that many stimuli constantly compete for people's attention, that no one media reaches all people, and that repetition of a message by various media gives it more prestige and increases public discussion.

In support of McCloskey, Kline (1969), found that changes in life style and ecological-demographic location create changes in the medium people use to acquire information. The survey by Lazarsfeld, Berelson, and Gaudet mentioned earlier in this chapter pointed out that the educational and social background of people will have a bearing on the medium they are susceptible to.

Throughout his publication, Education And Public Understanding, McCloskey makes constant reference to numerous conclusions drawn form studies in the social sciences, i.e., communication, persuasion, etc. He is one of the few educational public relations authors who demonstrates that he is writing with an understanding of the communication process.

Other "influential" educators whose publications were reviewed, but who showed little evidence of using the findings of social science research in their writing are: Arthur Moehlman (1927), Public School Relations; Ward Reeder (1937), An Introduction To Public-School Relations; American Association of School Administrators
(1950), Public Relations for America's Schools; Roald Campbell and John Ramseyer (1955), The Dynamics of School-Community Relationships. Leslie Kindred (1957), School Public Relations; Leslie Kindred (1960), How To Tell The School Story; and James Jones (1966), School Public Relations.

The authors of these publications are educators whose influence in the area of school public relations seems to be generally accepted, possibly because of the limited amount of literature available in this area.

The publications were reviewed in depth for recommended information dissemination techniques. A result of this review may be viewed in Figure 4, where X's have been placed next to each technique presented in each publication.

From Figure 4, it can be noted that only two information practices are presented by every author, and one of them is the use of newspapers. This is typical of the literature which offers an abundance of information about newspaper studies. The other practice is the use of teachers as public relations agents. A study by Armitage (1960) questions the effectiveness of teachers in this capacity. He studied the community participation of teachers, and concluded that teacher participation has no effect on the community's acceptance of the educational program. It is quite possible that both practices receive widespread use because of their accessibility to school news and the school's accessibility to them as information disseminators.
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Figure 4. Information dissemination practices discussed in selected sources.

NOTE: The numbers across the top of figure 4 represent the publication with the corresponding number below.

1. Arthur Moehlman (1927), *Public School Relations*
2. Ward Reeder (1937), *An Introduction To Public-School Relations*
3. American Association of School Administrators (1950), *Public Relations For America's Schools*
4. Roald Campbell and John Ramsayer (1955), *The Dynamics of School-Community Relationships*
5. Leslie Kindred (1957), *School Public Relations*
6. Leslie Kindred (1960), *How To Tell The School Story*
7. Scott Cutlip and Allen Center (1964), *Effective Public Relations*
8. James Jones (1966), *School Public Relations*
9. Gordon McCloskey (1967), *Education And Public Understanding*
Armitage's study is only one of a number of studies that contradict the uses of techniques for presenting information to the public as the educational "authorities" present them.

Empirical research which provides strength at varying levels for some of the practices listed in Figure 4 has been presented in previous sections of this chapter. Some studies pertinent to these practices will be reviewed in the next section which will discuss the literature pertaining to what is being done to inform the public.

A thorough review of the literature did not discover any information dissemination practices which were different from those presented in Figure 4.

The purpose of this study is to determine the effectiveness of four of the practices listed in Figure 4. They are slides, exhibit, newspaper, and newsletter. Each will be discussed in greater detail in a later section of this chapter.

Summary

8 A. Information about techniques which can be used to inform the public has been accumulated through surveys moreso than empirical studies.

8 B. Much of the literature on how to inform the public, which is accepted and applied by educators has been written by other educators whose qualifications in the area of public relations are questionable.
8 C. Schools have a major problem of how to communicate school information to the public effectively.

8 D. Many mediums should be employed to present school information to the public.

8 E. Educators must apply results of studies in the social sciences in order to communicate effectively with the public. Few educational public relations "authorities" show that they are aware of such studies.

8 F. The newspaper and the teacher are the two most popular practices employed by the schools to inform the public. A study by Armitage questions the effectiveness of teachers in this role.

9. Techniques Which Are Used To Inform The Public

Descriptive studies have covered various matters related to school public relations, such as medium most often used by schools to communicate with the public, forms used to report pupil progress to the parents, percentage of space in newspapers devoted to educational matters, citizens interest in particular school affairs, and so on.

Figure 4 in the preceding section of this literature review presented a list of twenty-five practices that could be employed to inform the public. A list of practices which have been used to inform the public would appear much the same as Figure 4. However, the order of occurrence in this case would place only a few practices
at the top and a large number near the bottom with only a few applications.

One of the most commonly used mediums is newspapers, which are also responsible for much of the research on information dissemination. Gordon (1966), investigated readers' interests in school news in the local newspaper and found that parents of school children were most interested in school news dealing with pupil health, curriculum, and business management and finance. Empirical studies that would provide sound evidence on how to effectively provide this information to the parents are missing from the literature.

Testing for communication between citizens and schools regarding financial support for education, Carter (1966) found that newspapers were most successful, followed by television, radio, school board, parent organizations, and citizens committees. A 1969 Gallup poll found that people cite newspapers as their most likely source of information about the schools. Pupils were the second most likely source. But Anderson (1967) concluded that parents prefer to receive their information from sources other than their son or daughter.

A possible reason why pupils, instead of the schools provide the information to the parents is given by Wickham (1967) who surveyed school public relations practices and offered the following order of occurrence for those exposed to information dissemination practices: 1) teachers, 2) pupils, 3) service staffs, 4) parents, and 5) general school community. Even though teachers
are first in line to receive school information, their effectiveness as public relations agents is questionable (Armitage, 1960).

With the pupils second in line to receive information, and parents and other community people fourth and fifth respectively, there is every indication that pupils will be the better informed because of the time element for public relations purposes spelled out by Campbell, Cunningham, and McPhee (1965, 211). From a national survey of superintendents, they reported that eight percent of the school administrator's time is spent on school-community services, including public relations work. However, a study by Burke (1963), shows that not much attention was being given to the problem of communication with the citizens about their schools. He, as well as Wickham, reported that school administrators gave "lack of time" as the reason for this problem of poor communication. This could also provide support for the heavy use of newspapers and teachers in this role since it would require little time on the administrator's part. Besides Wickham, the Gallup poll cited earlier also found that pupils are second to newspapers in providing school news to the parents.

The role of the teacher has been stressed in a number of theory publications. Dean (1966), who analyzed commercial and educational public relations techniques for schools, concluded that the teacher is the most important public relations contact employed by the schools. Whereas Dean's study was of the survey type, Armitage's (1960) was empirical. Armitage found that the teacher's effect on the community's acceptance of the educational
program is negligible. The few empirical studies available on the topic of informing the public, for the most part, contradict in part of wholly the information provided by the descriptive studies.

Pinnfe (1965) reviewed over 595 studies related to printed mass media of communication and arrived at a number of implications for school-community relations programs. Many of the studies as well as findings have already been discussed. He presented such implications as: 1) communicator image, 2) audience understanding, 3) persuasive techniques, 4) level of the message, and 5) knowledge of opinion leaders. For the most part, his findings and recommendations for application in school public relations programs are the same as those aspects of good communication recommended by Berlo, Hovland, and other prominent communication specialists.

Another indepth review of the literature was performed by Winfield (1965). He reviewed more than 500 articles, books, bulletins, journals, pamphlets, and yearbooks, for research studies dealing with the use of the mass media for communication purposes. In part, he concluded that radio, television, and school-made motion pictures should be used in a school-community relations program, and that school-produced programs should be designed for "target-audience appeal."

Although the studies and administrators agree that they are "too busy" to function properly as public relations agents, administrators seem to find time to operate an information program when they want something from the public. The most popular reason for operating a comprehensive school-community information campaign
is to gain support for bond issues to operate the schools and to build new ones.

This "one-shot" information program is not recommended by the "authorities." McCloskey (1967, 120) writes:

Make information accessible. Plan for a constant transmission of facts and concepts that help people perceive and value educational potentials, services, benefits, and needs. People need information to make choices and decisions congruent with their real needs or interests. Only enlightened people can implement their motives in rational fashion.

Studies in the 1960's have produced a few instruments for evaluating the strengths of school public relation programs. One of these instruments developed by Walton (1962) has been used by a number of researchers to evaluate public relations programs.

Walton developed his instrument by surveying the literature to see which public relations practices were used, and how often. He listed the practices, had a jury of "experts" rate them, and then checked them against successful--in his judgment--public relations programs. Opinion, not statistical data, was used to develop the instrument.

This is typical of much of the research in the area of school public relations practices; the higher the percentage of use, the higher the recommendation is for its application as a "good" communication device.

Summary

9 A. Of the more than twenty-five practices available to present school information to the public, only a few—newspaper,
pupils, and teachers—are used extensively.

9 B. Newspapers are the most popular means of schools providing information to the public, while the effectiveness of teachers as public relations agents is questioned. Parents would prefer to receive their school information from a source other than pupils (sons, daughters).

9 C. Data from empirical studies regarding the effectiveness of practices being employed by the schools is limited. One such study (Carter, 1960) found the most successful in gaining financial support to be newspapers, followed by television, radio, school board, parent organizations, and citizens committees.

9 D. Administrators claim "lack of time" as their reason for poor communications between the school and community. However, they do find time to conduct "campaigns" for school bond issues.

9 E. School public relations program evaluation instruments consist, for the most part, of surveys of what is being done, with these practices in turn rated by a "jury" of "experts."

10. Techniques Which Industrial Arts Is Using To Inform The Public

Industrial arts personnel have employed a number of techniques over the years to present their programs to the public. However, little empirical research deals with how well these techniques disseminate information. This is pointed out by Hutchcroft (1960, 693), when he writes about industrial arts in the Encyclopedia of
Public relations activities have become a real problem for industrial arts teachers in recent years. . . . additional research is needed. . . .

A review of two publications by the American Council on Industrial Arts Teacher Education, Classroom Research in Industrial Arts, and Research in Industrial Arts Education, failed to provide any evidence of research in the area of informing others about industrial arts. The National Conference on Research in Industrial Arts met in 1969, and the result was a publication by the same name. But this publication too does not indicate studies in the information dissemination realm.

In March of 1970, the American Council of Industrial Arts Teacher Education provided abstracts of 880 dissertations in industrial arts and vocational education to its members. Nowhere in the 880 studies could any information be located that would relate to dissemination of information.

Even with the lack of supporting research, industrial arts personnel have been active in promoting their programs. A review of the literature for the past ten years shows that the most popular practices have been exhibits, newspaper articles, and open houses. Some typical examples of those appearing in the literature are discussed below.

Giller and Sasson (1966, 24-5), have been presenting industrial arts to the city of New York for the past six years. This is accomplished through the cooperation of 1,200 industrial
arts teachers who exhibit the work of their schools and the students by whom the work is done. One of the prime objectives of this program is the establishment of better community understanding of the program.

In 1964, a committee was formed under the sponsorship of the American Industrial Arts Association. The purpose of this committee was to develop the proper image of industrial arts and the industrial arts teacher to the public. But the output of information by the committee has been negligible.

In 1959, the editorial staff of an industrial arts publication, School Shop (1960, 26-7, 112), conducted a national survey polling students' opinions as to why they choose to take industrial arts courses. One of the areas polled was parents' interest in industrial arts. The results showed that parents in general were interested in their children's progress in school, but this did not necessarily mean that they were interested in or knew anything about industrial arts. Two sample answers provide factual information for this thinking. "Yes, my parents are interested in anything I do," and "They don't know I have it (industrial arts)."

During this investigator's five years as a teacher of industrial arts at the secondary level, he organized programs aimed at better public understanding. These consisted of 1) exhibits, 2) newspaper articles, 3) laboratory visitations, 4) open houses, 5) adult programs, and 6) a coordinated tape-slide program used for presentations to community organizations. In an attempt to encourage others to publicize their programs the
investigator has outlined the procedures for making and presenting a coordinated tape-slide program about industrial arts activities (Hoenes, 1970, 30-1).

These examples of how industrial arts personnel are presenting their programs to the public are typical of the many presented in the literature. However, at no time in any empirical study or theoretical literature was there evidence presented on how effective any one of these practices were. The individual who would like to know the information dissemination potential of his public relations practice would be stymied for lack of data.

Summary

10 A. A review of the literature related to industrial arts reveals that more research is needed on how to effectively present industrial arts programs to the public.

10 B. Industrial arts personnel have employed a number of techniques over the years to publicize their programs. However, empirical research is lacking on how effectively these techniques are communicating the programs to the public.

10 C. The most popular techniques of presenting industrial arts to the public seem to be exhibits, newspaper articles, and open houses.

10 D. Results of a national poll showed that parents lacked information about the purpose and practices of industrial arts programs in their children's school.
11. Characteristics Of The Four Information Dissemination Techniques Used In This Study

The four information dissemination techniques used in this study--coordinated tape-slide series, exhibit, newspaper article, and newsletter article--were selected because they are commonly available to most school districts; they represent a mix of general public and targeted public dissemination techniques, and because they represent both common and uncommon techniques in past school public relations programs. Newspapers are the most commonly used school public relations technique, possibly because of their easy accessibility to the administrator who lacks sufficient time to create a good coordinated tape-slide series. However, the seldom used slide series could be employed many times in presenting the school program--in this case industrial arts--to the various "publics" the school must reach. A "captive audience" situation would exist, and two-way communication would be possible. The newsletter can be used to place school information directly in the hands of the parents, instead of having them receive it from a teacher or administrator through their child. While exhibits are used sparingly by administrators to publicize school programs, industrial arts personnel make wide use of them to display the accomplishments of students in their programs.

Coordinated Tape-Slide Series

Specific research on the "power" of slides accompanied by a tape narration is limited. However, a number of studies have
compared and contrasted the combined use of two or more mediums to present a message.

While reviewing a number of research studies, Klapper (1954, 104), concluded "that combined use of aural and visual presentation elicits better retention of simple and brief material than does the use of either method of appeal alone."

The conclusions from some studies reported by Kemp (1968, 15-8), expand upon Klapper's conclusion and provide sound reasoning for using narration with pictures.

1. . . . narration increases the learning of information presented by pictures.

2. . . . the meaning of a visual message is often ambiguous and subject to personal interpretation. The use of works to direct attention is essential.

3. special effects (music, etc.) used as attention-getting devices have no positive influence on learning.

Kemp (1968, 31-2), adds that, "... slides are a form of projected audiovisual materials which are easy to prepare."

Literature is plentiful on "how to make slides." Some examples are Kemp (1968), Eastman Kodak (1961), Eastman Kodak (1963), and others.

According to deKieffer (1965, 36), the 35-millimeter camera necessary for making slides is a tool which the teacher can use to capture many daily classroom experiences. The Gallup surveys in 1966 and 1969 provide evidence that the public wants to know about these daily experiences, and Klapper and Kemp have reported on research which shows that information can be gained and retained
from narration of pictures.

It is important to have people and action in the pictures, unless there is a specific reason for not doing so (Fuhring, 1962), (McCombs, 1951), (McCoy, 1959). These people and their actions should be scanned for any nonverbal meaning they might communicate to those viewing the pictures. Galloway (1968, 172) states that, "Nonverbal cues and clues represent elegant signs for conveying ... information, for actions do speak as loud as words—perhaps louder."

However, the narration should not be forced to overcome poor communication received from the accompanying pictures.

Presenting the program is just as important as creating it. Such items as room arrangement, introduction of program, and a summary must be planned for, according to Mambert (1968, 136-7). He adds that the number of slides held without changing the tray and remote control features of the projector must also be considered in order for the presentation to run smoothly. This will avoid the "noise" Shannon meant when he created his communication model.

The value of a coordinated tape-slide program as a public relations instrument is invaluable. School public relations "authority" Kindred (1960, 175, 188), expresses a view typical of those involved in public relations activities.

A fine set of photographic slides, accompanied by a carefully planned and well-recorded commentary, is an excellent public relations tool for use with large or small groups ... Through the reproduction of information on a screen they can acquire an accurate and realistic understanding of the system, its conditions, needs, and practices. And when reproduction is accompanied by interesting and
pertinent commentary, the chances are better than even that members of an audience gain as much, if not more, from this experience than from a personal visit to the system.

Moreover, good audio-visual productions bring numerous invitations from community groups that want to see them. Not only do they regard these productions as fine entertainment but also as a means to learn something more of the schools for which their taxes pay.

Industrial arts educators, Wilber and Pendered (1967) and Silvius and Curry (1967), stress the value of using slides and tape narration for presenting industrial arts to the public. Wilber and Pendered (1967, 303) write:

Because the values, objectives, and methods of industrial arts are less widely known and understood than is the case with some other school subjects, every opportunity should be accepted to present this information to service organizations . . .

Summary

II A. A coordinated tape-slide series can be used repeatedly to present industrial arts to the public. It will also "open doors" to group meetings where two-way communication can take place.

II B. Combined use of aural and visual presentation elicits better retention of simple and brief material than does the use of either method of appeal alone.

II C. Literature is plentiful on "how to prepare slides," which can be applied by the novice photographer.

II D. Viewers want to see people, preferably some they know, and action in pictures.
E. Avoid the "noise" Shannon speaks of in his communication model by preparing in detail the entire presentation.

Exhibit

Means (1968, 74) defines a school exhibit as, "... a display of materials which has as its purpose informing the observer about a subject of educational significance." Among the types of school exhibits that have been used are classroom, corridor, all-school, system wide, museum, store window, and fair. The store window exhibit was used for this study.

The store window exhibit or "... out-of-school exhibit is a further opportunity for bringing the public into contact with the work of the school," according to Kindred (1957, 341). He adds that (1957, 342):

The ... exhibit may be constructed around any subject or topic, ... which people ... should know about in order to better understand their schools. There are many different places in the community where the exhibits may be shown. A local store is a suitable location, and one that has been used as widely as any. The exhibit may be arranged either in a section of the store or else in the show windows where it can be seen from the street.

Studies dealing with the effectiveness of exhibits are lacking, but information discussed previously would apply in many instances. The sponsor of the exhibit should be trustworthy (Hovland and Weiss, 1951); written materials in the exhibit should be geared to fall slightly below the estimated average of the audience (Schramm, 1954); combined use of visual and aural material is more effective
than the use of either method of appeal alone (Klapper, 1954).

The exhibit should be attractive and so ordered that it does not appear awkward to the viewers. McFee (1969, 199, 202), writes that people seek order in objects so they can acquire information. Should this order be difficult to obtain, the benefits of the information aspects of the exhibit could be lost.

Good exhibits should be well-planned in advance. Dale (1969, 329-30), offers a set of standards for successful school-made exhibits. The headings for each standard are: "Use only one central idea." "Place your exhibit or poster where it can be easily seen." "Exhibits . . . are to be seen, not carefully read or studied." "Labels should be uniform and legible from a distance." "Lighting is an important factor." "Color may add interest and attractiveness." "Where appropriate, opportunities for participation should be provided." "Good organization promotes learning."

The evaluation of an exhibit is important for continued success or improvements to be made. An example of evaluation criteria is offered by deKieffer (1965, 32):

1. Is the exhibit
   A. Planned for a particular audience?
   B. Pleasing in appearance?
   C. Neat and well-organized?

2. Does the exhibit
   A. Accomplish its purpose?
   B. Draw attention?
   C. Arouse and hold interest?
   D. Make effective use of color, line and design?
   E. Include materials that are appropriate and carefully chosen?
F. Include well-chosen and legible letters and captions?
G. Provide for audience participation?
H. Promote decision and action?

deKieffer (1965, 32) concludes that:

The school exhibit can be of great value to teachers, students, and visitors because it visualizes and summarizes the learning experiences of a process or an idea. Furthermore, it can provide an outlet for the creative talents of students.

Exhibits play an important role in the public relation aspects of industrial arts. There is a wealth of information available from accepted leaders in the area of industrial arts which stresses the value of presenting class work to the public.

Summary

II F. An exhibit should inform the observer about a subject of educational significance.

II G. The "out-of-school" exhibit is an opportunity for bringing the public into contact with school activities.

II H. Communication characteristics such as trustworthy sponsor, level of written materials, and combined use of visual and aural materials apply to an exhibit just as much as to any written communication.

II I. The exhibit should be well-planned and use one central theme.

II J. As with any other public relations activity, exhibits should be evaluated to determine their effectiveness.
Newspaper Article

The information presented in a written newspaper article will not be interpreted the same by all readers. Hyman and Sheatsley (1947) found that the reader's attitude toward the subject being communicated will affect his interpretation of the message. Katz (1960) and Stedman (1969) report that certain terms will vary in meaning according to the readers past experiences and ethnic group membership. Hyman and Sheatsley also question whether some people will even receive the message.

Public relations specialists Cutlip and Center (1964, 285-9), express the importance of newspapers as instruments of public relations.

When a person thinks of publicity, he almost instinctively thinks of the newspaper. The American press--daily and Sunday newspapers . . . are read by virtually every literate person. Publicity in the press, day in and day out fifty-two weeks a year, forms the strong backbone of any informational program. A person who cannot be reached through a newspaper is not likely to count for much.

The strengths of the newspaper are many. Newspapers are produced in local communities and are indigenous to those communities. They have a first-hand intimacy with their local publics.

There are other advantages. Newspapers reach more people more often than any other medium. A person buys his newspaper as something he wants, not as something thrust upon him.

The average reader has great confidence in "his" newspaper. It makes a lot of difference to a lot of people "to see by the Journal" instead of "to see by the propaganda of Watzit's Institute."

Providing newspapers with news, pictures, and features of value and of timely interest to readers not only brings publicity but builds good press relations as well.
Articles accompanied with a good photograph are more effective than a straight story. Brown (1957, 7), reporting on a number of newspaper reading studies, writes that these studies reveal a high attention-attraction of photographs and drawings with articles. Cutlip and Center (1964, 289-90) add emphasis to Brown's conclusions:

Not to be minimized or overlooked in publicity is the photograph. This is an age of pictorial reporting. Reader-interest studies consistently show pictures as the top of the heap. Stories can be told dramatically and effectively in pictures. Good pictorial reporting will get a story in when a straight news story won't be accepted.

An understanding of reader habits is essential in order to communicate an important point to the public. Reporting on studies he reviewed, Brown (1957, 6), writes that the reader, "... may read the first paragraph of stories beneath (headlines), if his interest is aroused, or several paragraphs, if his interest is held. But he quickly passes on to other headlines and stories. Only occasionally does he hit upon a story that he reads all the way through."

For the most part, these studies have dealt with large daily newspapers. Writing about a few that have been performed on local newspapers, Cutlip and Center (1964, 287), make an important point to the public relations agent who will use the weekly newspaper. It is especially important to industrial arts personnel who have a wealth of activities in their laboratories that are news.
The weekly newspaper reader is a loyal reader who reads his paper through. Most experts agree that the weekly newspaper exerts a far greater impact on opinions in ratio to circulation than does the average daily newspaper.

Regarding the possibility of publishing school news in the newspaper, The National School Public Relations Association (1965, 10), says it best:

The schools . . . touch the heart, head, and pocketbook of all citizens. And as the community's "alter ego," the press feels that it is responsible for knowing all and telling all that is interesting, informative, or entertaining about the schools.

According to most of the literature, there is something that all school information agents must remember, and a quote by Cutlip and Center (1964, 288), is typical of this caution. "This vast array of newspapers wants one thing from the publicist—*NEWS!* The press is not interested in providing people and programs with publicity." They want to sell newspapers, and good school stories will help them in this endeavor. Good school stories would include student activities in the school.

**Summary**

Il K. The public's interpretation of a newspaper article will vary according to their attitude toward the content of the message, their past experiences, and their social background. Some people may never read the article.

Il L. Newspapers reach more people more often than do any other medium. Newspapers are regarded by the public as reliable
sources of information, more so than school personnel who might present only their side of the story.

II M. Articles accompanied by a good photograph are more effective than a straight story.

II N. People do not read more than the first paragraph of many articles. However, for the most part, people tend to read the local weekly newspaper thoroughly.

II O. Newspaper publishers want news from schools, and what the students are doing is news.

Newsletter Article

For the most part, the empirical research which has been discussed for the newspaper article also applies to the newsletter article.

The value of the newsletter itself to the school is unlimited because of its wide potential of readers. School public relations "authority" Kindred (1957, 141), writes:

(The newsletter is a) . . . publication used by many schools, . . . mailed to parents of school children and to selected community leaders. The purpose of the newsletter . . . is to keep citizens informed of instructional practices, outstanding professional activities, and problems facing the school system.

An important characteristic of newsletters is that they should follow an established publication schedule so the public will begin to "look forward to receiving it." They also should not be meant to compete with the mass media, newspapers, radio,
television, etc.; rather they should (McCloskey, 1967, 544) "merely supplement mass media communications."

The composition of the article must be carefully considered if it is to convey a message. Fine and Anderson (1957, 39-41) feel that the topic should be timely, accurate, and written for the school's public, since "Simple, everyday language will gain an appreciative audience for your publication . . . The general public won't wallow through cumbersome, verbose descriptions of school programs."

The use of illustrations, drawings, and pictures is just as important in the newsletter as was previously stated for a newspaper. Burke (1958, 30) states, "Even though the text is the most important element of the newsletter, pictorial materials have much to contribute."

**Summary**

11 P. Most of the information that applies to newspaper articles also applies to newsletter articles.

11 Q. Newsletters are a direct means of keeping the public informed about what is happening in their schools.

11 R. Newsletters should be scheduled and printed so that the public will anticipate receiving it. This means that the content must be interesting, the photographs professional, and the format easy to follow.
Chapter Summary

This chapter reviewed the theoretical literature and empirical research pertaining to the public relations profession and educational public relations. It presented information about the school's public, surveying the opinion of the public, and communicating with the public. Also, those techniques being used by schools in general, and industrial arts personnel in particular were reviewed, as were the four information dissemination techniques used in this study.

The survey of these research areas related to this study reveal:

1. Educational public relations is relatively new to the education profession, having its first organized beginnings in the 1920's. (Ref: 2 C)
2. There is a paucity of empirical research to guide the educator in the area of school public relations. That which is available is, for the most part, theoretical literature on what should be done, or surveys of what is being done. (Ref: 2 A, 2 B, 3 A, 8 A, 8 B, 9 C, 10 A)
3. The public is uninformed regarding school matters. However, the public wants information, and it is important for the success of the school's operations to see that they get it. (Ref: 2 E, 3 B, 3 C, 3 D, 6 G, 8 B, 8 C, 10 D)
4. The social sciences provide a wealth of data about communication, including the importance of message design, understanding the audience, and the communication process. (Ref: 4 A, 4 B, 4 C, 5 A, 5 B, 5 C, 5 D, 5 E, 5 F, 6 A, 6 B, 6 E, 7 A, 7 B, 7 C, 7 D, 7 E, 7 F, 7 G)
5. It is important to know what the public is thinking as well as who they are in order to communicate effectively. This usually involves surveying public opinion, an area where the qualifications of educators are questioned by those in the social sciences.
(Ref: 4 B, 5 B, 5 E, 5 F, 6 A, 6 B, 6 C, 6 D, 6 E, 6 F, 6 H)

6. The communication process is not simple, but requires careful study on the part of anyone who must communicate effectively with the public.
(Ref: 3 D, 5 A, 5 B, 5 C, 5 D, 5 E, 5 F, 6 H, 7 A, 7 B, 7 C, 7 D, 7 F, 7 G, 8 D, 8 E, 8 F)

7. The entire public, consisting of many different interests—educational and social—cannot be effectively communicated with using one method of communication.
(Ref: 4 B, 5 A, 5 B, 5 C, 5 D, 5 E, 5 F, 6 B, 6 H, 7 B, 7 C, 7 F, 7 G, 8 D)

8. The newspapers, pupils, and teachers are the most popular techniques employed by the schools to provide information to the public. However, the effectiveness of the pupils and teachers in this capacity is questionable.

9. Lack of time and insufficient background are given as the reasons why school personnel are failing to adequately inform the public about what is going on in their schools.
(Ref: 2 B, 6 D, 6 G, 8 B, 8 C, 9 D)

10. Research of any kind—normative surveys, descriptive studies, or empirical research—on how to publicize industrial arts to the public, is missing from the literature.
(Ref: 3 A, 8 C, 10 A, 10 D)

11. A coordinated tape-slide series, an exhibit, a newspaper article, and a newsletter article, are four techniques that can be employed to present the industrial arts program to the public.
CHAPTER III

DESIGN OF THE STUDY

In the preceding chapters, the general problem under consideration was introduced, a brief explanation of the design of the study was offered, and a body of literature and research pertinent to the problem was examined. This chapter presents a rationale for the use of the methodology for this study and records the specific methods and procedures developed and used by the investigator to collect and analyze the data.

The first section of this chapter presents the questions which led up to this specific study. The questions are followed by the hypotheses, null and alternate forms, which were derived from the questions and are to be statistically accepted or rejected at the conclusion of this study.

Next, sampling procedures are discussed. Guidelines are followed to establish the instrument for collecting the data. The data collection procedures are presented along with a brief report of the returns. The chapter concludes with a brief explanation of the techniques employed to analyze the data and a chapter summary.

Questions

In order to help identify the relevant school community objectives of this study, answers to the following questions were sought.
Coordinated Tape-slide Series

1. Will the parents of those students in a school learn anything about the school's industrial arts program by viewing a coordinated tape-slide series which depicts the school's industrial arts program?

2. Will the parents be subject to exposure to the tape-slide series?

3. Will the parents with children in the industrial arts program view the tape-slide series?

4. Will the parents without children in the industrial arts program view the tape-slide series?

Exhibit

1. Will the parents of those students in a school learn anything about the school's industrial arts program by viewing an exhibit which depicts the school's industrial arts program?

2. Will the parents be subject to exposure to the exhibit?

3. Will the parents with children in the industrial arts program view the exhibit?

4. Will the parents without children in the industrial arts program view the exhibit?

Newspaper Article

1. Will the parents of those students in a school learn anything about the school's industrial arts program by reading a newspaper article about the industrial arts program?
2. Will the parents be subject to exposure to the newspaper article?

3. Will the parents with children in the industrial arts program read the newspaper article?

4. Will the parents without children in the industrial arts program read the newspaper article?

**Newsletter Article**

1. Will the parents of those students in a school learn anything about the school's industrial arts program by reading an article about the industrial arts program in the school newsletter?

2. Will the parents be subject to exposure to the newsletter article?

3. Will the parents with children in the industrial arts program read the newsletter article?

4. Will the parents without children in the industrial arts program read the newsletter article?

**Hypotheses**

In order to answer the questions previously identified, the following hypotheses were tested in the null form, $H_0$. In instances where there was a statistically significant difference in a null hypotheses, $H_0$, the alternate hypothesis, $H_1$, shown here below its respective null hypothesis was accepted.
Hypothesis I

H₀ -- There will be no significant difference in parents' understanding of a school's industrial arts program before and after they view a coordinated tape-slide series about the program.

H₁ -- The parents' understanding of a school's industrial arts program will increase after they view a coordinated tape-slide series about the program.

Hypothesis II

H₀ -- There will be no significant difference in parents' understanding of a school's industrial arts program before and after an exhibit of student work is made available to them for viewing.

H₁ -- The parents' understanding of a school's industrial arts program will increase after an exhibit of student work is made available to them for viewing.

Hypothesis III

H₀ -- There will be no significant difference in parents' understanding of a school's industrial arts program before and after they view an exhibit of student work.

H₁ -- The parents' understanding of a school's industrial arts program will increase after they view an exhibit of student work.
Hypothesis IV

$H_0$ -- There will be no significant difference in parents' understanding of a school's industrial arts program before and after an article about the program appears in the community newspaper.

$H_1$ -- The parents' understanding of a school's industrial arts program will increase after an article about the program appears in the community newspaper.

Hypothesis V

$H_0$ -- There will be no significant difference in parents' understanding of a school's industrial arts program before and after they read an article about the program in the community newspaper.

$H_1$ -- The parents' understanding of a school's industrial arts program will increase after they read an article about the program in the community newspaper.

Hypothesis VI

$H_0$ -- There will be no significant difference in parents' understanding of a school's industrial arts program before and after an article about the program appears in the school newsletter.

$H_1$ -- The parents' understanding of a school's industrial arts program will increase after an article about the program appears in the school newsletter.
Hypothesis VII

$H_0$ -- There will be no significant difference in parents' understanding of a school's industrial arts program before and after they read an article about the program in the school newsletter.

$H_1$ -- The parents' understanding of a school's industrial arts program will increase after they read an article about the program in the school newsletter.

Hypothesis VIII

$H_0$ -- There will be no significant difference in effectiveness between and among the four techniques used to disseminate information about an industrial arts program to the parents.

$H_1$ -- There will be a significant difference in effectiveness between and among the four techniques used to disseminate information about an industrial arts program to the parents.

Method For Determining Sample

This study was conducted in the city of Reynoldsburg, Ohio, adjacent to and east of Columbus, Ohio, the state capital. The universe from which the sample for this research was taken consisted of all of the parents of the students in Reynoldsburg High School in Reynoldsburg, Ohio. The current 1969-70 student enrollment roster for the high school was used in alphabetical order to determine four of the five samples needed -- pretest, exhibit, newspaper
article, and newsletter article. The only exception in selecting a sample occurred for the coordinated tape-slide series and this is explained in depth below under coordinated tape-slide series.

For the remaining four samples -- pretest, exhibit, newspaper article, and newsletter article -- a random numbers table containing numbers one through thirty-five was employed. A number was chosen at random -- blind pointing -- and this became the starting point for selecting the remainder of the people who comprised each sample. This was a simple random sampling without replacement procedure in order to avoid having an individual appear in more than one sample. Reporting on research performed on this type of sampling, Hansen, Hurwitz, and Madow (1953, 18-21, 90-120), and Guilford (1965, 139) write that it is a reliable method of sampling for surveys. In the Encyclopedia of Educational Research, Francis G. Cornell (1960, 1182) states:

If a sample of size n is desired of this population... the sample may be drawn by proceeding through the list or sequence of individuals in the population and select-every kth individual \( (k = N/n) \). If the first item is selected randomly from among the first k items, then every item in the entire population has the same probabil-ity \( (1/k) \) of being selected. Under such circumstances it is a probability sample and its precision may be determined.

The actual selection of the samples for the pretest and each of the information dissemination techniques, with the exception of the coordinated tape-slide series sample, is supported by research by Hand (1948, 88), and Parten (1950, 106-23).

An operational model of the procedures followed in carrying out this study is shown in Figure 5 on the next page.
Fig. 5. Operational Model of Research Procedures
Pretest

After selecting the starting point as explained above, a parent of every tenth student in the high school was selected until one hundred parents had been chosen to comprise the sample for the pretest. The parents were alternated between mother and father throughout the selection process to provide equal distribution of sex. The pretest was then conducted before the population was subjected to exposure of any of the four information dissemination techniques.

Posttests

Coordinated Tape-slide Series

The coordinated tape-slide series was presented to groups of people in Reynoldsburg, Ohio—a list of which was available before the experiment began. Each person who viewed the series and met the sample criteria explained below comprise the sample for this information dissemination technique. A copy of the letter mailed to each group is shown in Appendix A.

1. A comparison was made between the list of persons viewing the series and the list of parents having children in Reynoldsburg High School. To assist in this task those persons viewing the series
were asked to write their name and address, and to check a statement as to whether they had a child in Reynoldsburg High School. Those giving a "yes" answer were asked to provide their child's name so that it could be checked against the school enrollment roster. A copy of the form each viewer filled out is included in Appendix B.

2. Only those individuals who had a son or daughter in Reynoldsburg High School received a questionnaire in the mail.

3. Those individuals who completed or received a questionnaire for any of the other three information dissemination techniques or for the pretest were not considered for inclusion in this sample.

4. Although these sample selection criteria vary from the other four samples, it can be justified in that all parents are rarely exposed to this type of information dissemination technique. Therefore, the results will be valid since one of the hypotheses being tested is parents' exposure to the technique. However, it is important that the reader be aware of the limitations on this particular technique.
Exhibit

After selecting the starting point as explained above, a parent of every twentieth student in the high school was selected until fifty parents had been chosen to comprise the sample for this information dissemination technique. The parents were alternated between mother and father throughout the selection process to provide equal distribution of sex.

Newspaper Article

After selecting the starting point as explained above, a parent of every twentieth student in the high school was selected until fifty parents had been chosen to comprise the sample for this information dissemination technique. The parents were alternated between mother and father throughout the selection process to provide equal distribution of sex.

Newsletter Article

After selecting the starting point as explained above, a parent of every twentieth student in the high school was selected until fifty parents had been chosen to comprise the sample for this information dissemination technique. The parents were alternated between mother and father throughout the selection process to provide equal distribution of sex.
Formulating the Survey Instrument

This study of the "effectiveness" of four information dissemination techniques required the development of a data collection instrument which would give parents of high school students an opportunity to show their understanding of an industrial arts program. Although the literature describes many methods of obtaining data, there are, in general, only modifications of four basic procedures. They have been listed by Schluter (1926, 78-9), as follows:

1. Personal observations of phenomena under actual or real conditions.
2. Personal observations of phenomena under artificial or arbitrarily created conditions.
3. Personal interviews.
4. Personal correspondence, which includes the use of letters and mailed questionnaires.

The nature of the study made it impractical to consider procedures one or two as possible data collection techniques. Because the study required the investigator to acquire information from a large number of people (300), spread over an entire city, feasibility factors -- expenses, personnel, and time -- required the investigator to eliminate the third procedure. Through this process of elimination it was finally decided to use the fourth procedure listed by Schluter.

Since students and researchers in education, sociology, and communication have conducted numerous studies of the perception and
knowledge of many different kinds of publics on a wide range of subjects, this investigator had an opportunity to examine a variety of survey instruments. Three sources -- Hand of the University of Illinois, Davis of The Ohio State University, and the National School Public Relations Association -- proved to be particularly helpful. Hand's (1948) work in *What People Think About Their Schools* and the National School Public Relations Association (1956) publication, *Feel Their Pulse*, provided valuable suggestions in the development of the items relating to parental understanding of the industrial arts program. Davis' (1968) study was especially useful in reviewing the format of questions as they should appear on a parental survey instrument.

The following topics were considered in depth before developing the final questionnaires necessary to conduct the study.

### Types of Questionnaire Items

Before composing the survey instrument it was necessary to select the types of items to employ which would be most beneficial to the study. Social surveyors Parten (1950) and Phillips (1966), along with educational researcher Rummel (1958) offer sound considerations for selecting types of items for composing a survey instrument. In general, they are modifications of three types.

1. Free-Response, Open-End, or Short-Answer form. This form is characterized by a blank in which the respondent writes the information asked for by the question.
2. Yes-No, Right-Wrong, or True-False form. This form consists of a statement to be answered categorically yes or no, right or wrong, or to be judged true or false. It is essentially a form in which only one of the possible alternates is agreed upon.

3. Multiple-Choice form. This form consists of an introductory question and two or more suggested answers with only one of the possible replies being agreed upon.

Three reasons led to the elimination of number one as a possible type of data collection question. The first was that problems would arise in tabulating the replies if the respondents gave a variety of different answers. Secondly, an authority on questionnaire design and use at The Ohio State University explained that people are discouraged from completing questionnaires which require them to write extensively. The third reason for eliminating form number one was the possibility that the respondent might not consider information which could be essential for the study. However, one statement on the data collection instrument was open-ended to permit the respondent to "let off steam" as per the suggestion of the authority at The Ohio State University as well as the authors of previously mentioned survey design material.

It was finally decided to employ a combination of forms two and three as the types of data collection items. Some of the
desired information could be received by a simple yes or no, while other information could provide more meaning to the study when the respondent had to select from a number of offerings.

**Structured Versus Unstructured Items**

After studying what experienced survey personnel said about structured and unstructured data collection items, the investigator decided to use structured items with the following supportive background information.

An unstructured item requires the respondent to do some hard, reflective thinking and could necessitate a lengthy discussion on his part. In the process he might inadvertently omit some information vital to the study because he did not happen to think of it at the time. Also, he probably would have nothing personal to gain immediately from answering the questions, and chances of his providing thoughtful answers could be very slight.

A structured item requires only a checking or the writing in of a scaled value judgment, and enabled the investigator to ask specific questions about the program. In the preliminary try-out of the survey instrument, a few blanks were provided for the respondent to list information which might not have occurred to others.

**Questions To Establish Favorable Respondent Rapport**

According to Hayman (1968, 71), the first questions on a survey instrument are usually rapport builders, that is, they may
serve no other purpose than to establish rapport with the respondent and motivate him to continue. Thus, the first questions are very important not only for their informational value, but for encouraging the respondent to complete and return the survey form so that its full value can be realized by the investigator and respondee.

Therefore, a prime consideration of the survey instrument was to construct the questions so as to establish and maintain favorable respondent rapport as well as gain the needed information. As stated by social psychologist, A. N. Oppenheim (1966, 65), the questionnaire "must strive . . . to meet the respondent halfway and to give and maintain the general feeling that he is being treated with respect and with consideration. By taking time and trouble to answer our questions, the respondent is doing us a favor, and we must never allow ourselves to forget this."

Some considerations which were applied to the construction of items on the survey instrument for this study are:

1. Get the respondent's mind on the topic.
2. Allow the respondent to "let off steam" (open-ended question).
3. Avoid having the respondent form the opinion that the questionnaire is inadequate.
Basic Guides to Item Construction

Before constructing the actual questions for the survey instrument, guides were established to strengthen those items considered for use and to eliminate weak items. The literature suggested many combinations of such guides, but after careful deliberation the investigator decided to use suggestions by J. Francis Rummel (1958, 97-8) and Mildred Parten (1950, 199-213) as a guide to item construction for the survey instrument. Each item used on the preliminary try-out, as well as on the final survey instrument, was tested against the item requirements suggested by Rummel and Parten and listed below:

1. Express the item as clearly as possible.
2. Choose words that have precise meanings whenever possible.
3. Avoid complex or awkward word arrangements.
4. Include all qualifications needed to provide a reasonable basis for response selection.
5. Avoid the inclusion of nonfunctional words in the item.
6. Avoid unessential specificity in the item question or in the responses.
7. Avoid the inclusion of trivial questions.
8. Make the suggested answers for selection as simple as possible.
9. Be sure the items apply to the situation from the standpoint of the respondent.
10. Refrain from asking questions of opinion unless opinion is what is specifically required.
11. Avoid items that are too suggestive or too un-stimulating. They should not lead a respondent to go beyond the facts, nor should they fail to enlist responses that would not, at the time, occur to him.

12. Phrase questions to avoid the academically or socially acceptable responses. Make it possible for the respondent to answer truthfully without embarrassment.

13. Avoid questions that may be checked with multiple responses when only one response is desired.

14. Whenever possible, questions should be worded in such a way that they can be answered simply by a check mark.

15. Ask questions in such a manner that they will relieve the respondent of as much complex thinking as possible.

16. Avoid the use of words which are susceptible to different interpretations: e.g., moral or immoral, good or bad, rich or poor, intelligent or ignorant, laborer or capitalist, etc.

17. Use simple words which are familiar to all potential informants.

18. Formulate the questions to yield exactly the information desired.

19. Avoid "double-barreled" or multiple-meaning questions.

20. Avoid leading questions, i.e., questions worded in such a way as to suggest the answers.

21. Avoid "danger words," catchwords, stereotypes, or words with emotional connotations.

22. Be cautious in the use of phrases which may reflect upon the prestige of the informant.

23. Decide on whether to personalize some of the questions.

24. Make the alternatives in multiple choice questions realistic.
25. Plan to include a few questions that will serve as checks on the accuracy and consistency of the questions as a whole.

26. Avoid questions that call out responses toward socially accepted norms or values. (Items 1 through 16 are from Rummel; items 17 through 26 are from Parten.)

**Questions Composing Survey Instrument**

Using the previously presented information as a guide, the investigator once again referred to the literature for assistance in composing the questions for the survey instrument. Survey items developed, field tested, refined, and employed by Hand (1948), the National School Public Relations Association (1956), and Davis (1968), were studied and reworked by the investigator to meet the requirements of the survey instrument for this study. It was felt that a stronger survey instrument would result from drawing upon the experience and expertise of these individuals and organization. The resulting instrument was drafted and redrafted four times.

After the first draft of twenty-eight items on the survey instrument, the investigator reviewed it with an authority on questionnaire design on The Ohio State University campus. The result of this meeting was a redraft of the original twenty-eight item instrument to a twenty item one. This draft was pilot-tested with a group of twenty parents in the Columbus, Ohio area who met the
same qualifications as the population to be used in the final application of the instrument. The pilot test led to a third draft of the instrument to eliminate or revise multi-meaning items, hard to understand items, and items which parents were inclined to skip over. Comments were also solicited on the pilot test and some received were beneficial in question refinement. Throughout the construction and refinement of the items, Stanley Payne's publication, *The Art of Asking Questions* (1951), was a valuable source of information for meaningfully organizing each item.

The third draft of the instrument was again reviewed with the questionnaire design authority at The Ohio State University who suggested minor changes in some of the items and approved of the instrument format. The fourth and final draft of the instrument contained fourteen items for the pretest and fifteen items for the post-test on each of the four information dissemination techniques. Copies of the two instruments may be examined in Appendix C.

**Survey Instrument Format**

The mechanical arrangement and appearance of the survey instrument is of prime importance in securing valid responses as well as a high percentage of returns. After reviewing many authoritative suggestions for construction of survey instruments, the investigator concluded that a combination of those suggested
by Carter V. Good (1966, 221) and Mildred Parten (1950, 157-62) would provide a sound basis for the format of the instrument used in this study. The suggested guides employed are:

1. It must be short enough so as not to take too much time and so that the respondent will not reject it completely.

2. It must be of sufficient interest and have enough face appeal so that the respondent will be inclined to respond to it and complete it.

3. The arrangement of the items should be such that the respondent can tell at a glance whether all questions are answered.

4. The size, color, and quality of the paper and printed material must be such that they encourage the respondent to complete and return the instrument.

Covering Letter

The covering letter also has an important role in encouraging valid returns, as well as a high percentage of returns. After careful consideration and review of other covering letters, the investigator decided to include the following information in the covering letter, a copy of which may be viewed in Appendix C.
1. Descriptive general title of the study.
2. Brief description of the purpose of the study.
3. Directions on how to complete the instrument.
4. Respondent's right of anonymity.
5. A list of endorsements of the study.
6. The name of the sponsor of the study.

In the covering letter, the respondents were told that they need not provide their names with the instrument they returned. This is suggested by numerous survey authorities who feel that respondent anonymity increases the honesty of each reply and assures a higher percentage of returns. Although no names were provided on the returns, each survey instrument was coded to enable the investigator to identify those who had returned the instrument as well as those who had not. This enabled the investigator to acquire information from school records which was pertinent to the study without having to ask the parents to provide it. Even though it was known who responded and how they responded, no names were attached to any data reported in this study or released elsewhere.

**Conducting the Survey**

While the literature on conducting a survey is plentiful, in general, each of them describes basically the same procedures for soliciting information from people. Because of this, the
Investigator elected to rely on Hand (1948), Parten (1950), and Phillips (1966) for guidance in conducting the survey for this study.

School-community surveyor, Harold C. Hand (1948, 88), suggests three good reasons why survey instruments used in school polls should be mailed instead of being sent home with the students.

1. If they are entrusted to the children, there can be no assurance that the questionnaire ever reaches the parents.

2. Far too large a proportion of those that do get through will be crumpled, torn, or dirty -- leading to rejection on the part of the parents.

3. The parents are likely to take much more seriously a crisp-looking communication which the sender has taken seriously enough to go to the trouble and expense of addressing and mailing.

Based on the soundness of Hand's suggestions, the investigator elected to mail all survey instruments to each sample with the necessary addresses acquired from the school file in the manner explained in this chapter under Method For Determining Sample.

Reporting on numerous studies, Parten (1950, 387-9) writes that the percentage of returns for survey instruments increases significantly when a self-addressed, stamped envelope is included for the respondent to use. For this reason, a self-addressed, stamped envelope was included with every survey instrument in original as well as follow-up mailings.
Time Of Conducting Survey

From the literature, the investigator concluded that while "how to conduct a survey" is important, "when to conduct a survey" is equally important for the success or failure of acquiring information from people. Information from research studies led the investigator to establish the following guidelines for conducting the survey for this study.

1. No surveying took place at least two weeks before or one week after a school holiday such as Thanksgiving, Christmas, New Year, and Easter.

2. The survey instruments were mailed on Thursdays in order for the respondents to receive them on Friday and have the weekend to complete them.

3. Follow-up procedures were established before the survey began.

The survey began on October 9, 1969 when the pretest survey instrument was mailed to the one hundred people comprising the sample. (Refer to Method For Determining Sample in this chapter for sample selection procedure.) In February, 1970, the first posttest survey instrument was mailed, and the final posttest survey concluded on June 11, 1970, with the mailing of the second follow-up on the school newsletter article. Some phone calls were conducted after this date as the concluding phase of the follow-up procedure.

Data for the pretest and each of the four posttests was acquired in the following manner.
Coordinated Tape-slide Series

A list of all organizations or groups in Reynoldsburg, Ohio who would be likely candidates for viewing the program was acquired from the superintendent of schools for Reynoldsburg. In early November, 1969, letters were mailed to the person in charge of each group asking for permission to present the program to his or her group. Those who did not reply by the second week in December were contacted by phone; and where possible, arrangements were made to present the program at their convenience. A copy of the correspondence mailed to the organizations or groups is given in Appendix A.

One week after the organization or group had viewed the program, the survey instrument was mailed to those individuals who met the sample requirements outlined in this chapter under Methods For Determining Sample.

Exhibit

An exhibit of projects along with a limited amount of written explanation about Reynoldsburg High School's industrial arts program appeared in a business establishment's show window in the Reynoldsburg Shopping Center for two weeks beginning February 13, 1970.
One week after the exhibit had been removed from the business establishment, the posttest survey instrument was mailed to the fifty people comprising the sample for this information dissemination technique. Refer to Methods For Determining Sample in this chapter for sample selection procedure.

**Newspaper Article**

An article with an accompanying photograph appeared in the two weekly newspapers in Reynoldsburg on Wednesday, April 1, 1970. A copy of the article may be viewed in Appendix E.

One week after the article appeared in the local newspapers, the posttest survey instrument was mailed to the fifty people comprising the sample for this information dissemination technique. Refer to Methods For Determining Sample in this chapter for sample selection procedure.

**Newsletter Article**

An article with an accompanying photograph appeared in the May issue of The Reynoldsburg School Report, a newsletter mailed to everyone in Reynoldsburg, Ohio at various times during the school year. A copy of the article may be viewed in Appendix F.

One week after the newsletter was mailed to the homes, the posttest survey instrument was mailed to the fifty people compris-
ing the sample for this information dissemination technique. Refer to Methods For Determining Sample in this chapter for sample selec­tion procedure.

Follow-up Efforts

The consensus of opinion from the literature reviewed is that an organized plan of follow-up is essential for acquiring a high percentage of returns on a mailed survey instrument. Katz and Cantril (1937), in discussing the returns received by public opinion polls conducted by mail, reported that usually less than one-fifth of the mailed ballots were returned. Effects and control of non-response as presented by Kish (1967, 532-62), was reviewed in depth by the investigator in an attempt to maintain a high percentage of returns.

Efforts to avoid a low return ratio for this study led the investigator to establish the following follow-up procedure which is a slight revision of those reported by Parten (1950, 391-402).

Form of Follow-up

The first follow-up took the form of a post card reminding the recipient that some questionnaires had not been received and that if his was one, would he please return it as soon as possible. A copy of the post card may be viewed in Appendix D.

The second follow-up included a copy of the original ques­tionnaire under the assumption that the original might have been
misplaced. A copy of the post card statement was included with the questionnaire on a 3 by 5 card.

The third follow-up consisted of a telephone call explaining the importance of the questionnaire and asking the respondent to return it as soon as possible if he had not already done so. A copy of the standard telephone statement may be viewed in Appendix D.

When Follow-ups Were Made

Studies reported by Parten (1950, 391-402) indicated that survey follow-ups vary according to the size of sample, type of survey, and distance the instrument must travel in the mail. After reviewing these characteristics, the investigator decided to employ the following follow-up schedule.

The first follow-up was made seven days after the original survey instrument had been mailed.

The second follow-up was made seven days after the first follow-up, or fourteen days after the original survey instrument had been placed in the mail.

The third follow-up was made seven days after the second follow-up, or twenty-one days after the original survey instrument had been mailed.

Returns

In connection with the responses, the pretest yielded 71%, while the four posttests yielded as follows: coordinated tape-slide
series 78%; exhibit 86%; newspaper article 82%, and newsletter article 84%. Table 1 provides more detailed information about the returns.

Table 1

DISTRIBUTION AND RETURNS ON PRETEST AND FOUR POSTTESTS

<table>
<thead>
<tr>
<th>Sample</th>
<th>Sample Size</th>
<th>Returned Number</th>
<th>Returned Percent</th>
<th>Useable Number</th>
<th>Useable Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest</td>
<td>100</td>
<td>71</td>
<td>71</td>
<td>71</td>
<td>71</td>
</tr>
<tr>
<td>Coordinated Tape-slide Series</td>
<td>54</td>
<td>42</td>
<td>78</td>
<td>42</td>
<td>78</td>
</tr>
<tr>
<td>Exhibit</td>
<td>50</td>
<td>43</td>
<td>86</td>
<td>43</td>
<td>86</td>
</tr>
<tr>
<td>Newspaper Article</td>
<td>50</td>
<td>41</td>
<td>82</td>
<td>41</td>
<td>82</td>
</tr>
<tr>
<td>Newsletter Article</td>
<td>50</td>
<td>42</td>
<td>84</td>
<td>41</td>
<td>82</td>
</tr>
</tbody>
</table>

Table 2 reveals that one hundred twenty-five of the respondents were males, and one hundred thirteen were females. This result was gratifying since it approaches the 50-50 split between sexes which existed for the total sample. This balance between the sexes should strengthen the statistical analysis by eliminating an overload of one sex as a respondent bias.
<table>
<thead>
<tr>
<th>Sample</th>
<th>Sex of Respondents</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Pretest</td>
<td>36</td>
<td>35</td>
</tr>
<tr>
<td>Slides</td>
<td>27</td>
<td>15</td>
</tr>
<tr>
<td>Exhibit</td>
<td>21</td>
<td>22</td>
</tr>
<tr>
<td>Newspaper</td>
<td>18</td>
<td>23</td>
</tr>
<tr>
<td>Newsletter</td>
<td>23</td>
<td>18</td>
</tr>
<tr>
<td>Totals</td>
<td>125</td>
<td>113</td>
</tr>
</tbody>
</table>

Of the two hundred thirty-eight respondents, one hundred seventeen were parents of sons, and one hundred twenty-one had daughters in Reynoldsburg High School. From Table 3 it can be seen that this even split of son and daughter is consistent throughout each sample. Once again, this is gratifying, as it should eliminate data bias from an unbalanced number of sons or daughters of respondents.
Table 3

COMPOSITION OF STUDY FOR SEX OF RESPONDENTS' CHILDREN

<table>
<thead>
<tr>
<th>Sample</th>
<th>Sex of Children</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Pretest</td>
<td>33</td>
<td>38</td>
</tr>
<tr>
<td>Slides</td>
<td>21</td>
<td>21</td>
</tr>
<tr>
<td>Exhibit</td>
<td>23</td>
<td>20</td>
</tr>
<tr>
<td>Newspaper</td>
<td>19</td>
<td>22</td>
</tr>
<tr>
<td>Newsletter</td>
<td>21</td>
<td>20</td>
</tr>
<tr>
<td>Totals</td>
<td>117</td>
<td>121</td>
</tr>
</tbody>
</table>

Table 4 reveals that twenty-eight of the two hundred thirty-eight respondents had children in the industrial arts program. It is felt that this 11.8% figure should not create any respondent bias in answering questions about the industrial arts program.
### Table 4

**Composition of Study for Respondents with Children in Industrial Arts Program**

<table>
<thead>
<tr>
<th>Sample</th>
<th>Have Industrial Arts</th>
<th>Do Not Have Industrial Arts</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pretest</td>
<td>11</td>
<td>60</td>
<td>71</td>
</tr>
<tr>
<td>Slides</td>
<td>0</td>
<td>42</td>
<td>42</td>
</tr>
<tr>
<td>Exhibit</td>
<td>7</td>
<td>36</td>
<td>43</td>
</tr>
<tr>
<td>Newspaper</td>
<td>7</td>
<td>34</td>
<td>41</td>
</tr>
<tr>
<td>Newsletter</td>
<td>3</td>
<td>38</td>
<td>41</td>
</tr>
<tr>
<td>Totals</td>
<td>28</td>
<td>210</td>
<td>238</td>
</tr>
</tbody>
</table>

**Analysis of Data**

Because of the importance of correctly tabulating the information from the survey instruments, tables were established to handle the data. A cross comparison of the tabulated data was then made between the pretest and each of the four posttests. The items were statistically analyzed using the Kolmogorov-Smirnov Two Sample Test (Siegel, 1956, 127-36). In the cases where percentages were used to compare items between the five samples -- pretest and four posttests -- a nomograph designed by Joseph Zubin (1939, 539-44) was employed as an aid to inspection of any differences.
Chapter Summary

This chapter on the design of the study discussed the procedures and methods formulated for data collection and analysis. Questions to be answered by the study were presented as were the hypotheses derived from the questions. The rationale for selecting the five samples for the study was discussed in detail.

The major instrument developed in this study consisted of a fifteen item (fourteen items for the pretest) survey instrument which was pilot-tested and then critiqued by an authoritative survey instrument designer.

The activities employed in conducting the survey were explained. A breakdown of returns for each of the samples -- pretest and four posttests -- was presented with a low of 71% for the pretest and a high of 86% for the exhibit posttest.

A brief explanation was given regarding the tabulating of the data and the methods employed in analyzing the data in Chapter IV.
CHAPTER IV

FINDINGS OF THE STUDY

Method of Analysis

The data gathered by questionnaire were summarized by tallying all responses to each item in the instrument. Four separate tallies of responses were completed, with parents being grouped according to a different characteristic each time. Groupings were based on sex, those who were not exposed to the information dissemination technique, those who were exposed to the information dissemination technique, and those with children in the industrial arts program.

Thirty-three two-group contingency tables were prepared from the tallies to provide a basis for analysis of data by comparison of the distributions. Seven more tables were prepared to provide reference information during the final analysis of the findings.

The thirty-three two-group contingency tables were developed through a three step process. First, a frequency distribution was compiled for each of the two groups; second, these data were converted into a cumulative frequency distribution for each group; and third, these data were converted into cumulative percentages of response for each group.

The difference between the cumulative percentage of each group was determined for each point on the response scale. The
greatest difference was entered into the equation employed in the Kolmogorov-Smirnov Two Sample Test (Siegel, 1956, 127-36) to obtain a Chi Square value for the response distributions. Once the Chi Square value had been computed, reference was made to a Chi Square table on critical values to obtain a probability statistic. This statistic indicated the probability of chance occurrence in the response distributions, that is, the significance of difference between the response distributions of the two groups being compared.

A null hypothesis of no difference between pairs of parental groups was tested in conjunction with each of the two-group contingency tables. A null hypothesis was rejected in favor of its alternate when the Chi Square value produced by the difference in response distributions yielded a probability statistic less than or equal to .20. This level of significance was chosen for the study instead of the traditionally employed .05 level, for two reasons. First, the investigator preferred to run the risk of making Type I errors instead of Type II errors in accepting or rejecting a null hypothesis. Second, because this is one of the first studies to test the effectiveness of information dissemination techniques, the investigator wished to reject as many null hypotheses as possible in order to encourage further research in this area.

As the reader examines the two-group contingency tables, he will observe that the size of N varies. This may be explained by noting that N is a function of the number of questions pooled in the table times the number of parental responses to the questions.
Questions were pooled for data analysis as follows: parent perception of the Reynoldsburg High School information program was gained by pooling parental responses to questions 2, 3, 11, and 14, on the survey instrument. Parental responses to questions 6, 8, and 9, were pooled to provide information about parents' perception of the industrial arts program. And parents' knowledge of certain aspects of the industrial arts program was gained by pooling parental responses to questions 7, 10, 12, and 13. The reader is referred to Appendix C for a copy of the survey instrument and the wording of the questions pooled.

The certain aspects of knowledge about the industrial arts program which the parents were tested on, were derived from "planted" information in each of the four information dissemination techniques. The correct answers to questions 7, 10, 12, and 13, in the survey instrument were presented in each technique released to the public, and the parents in each sample were then "tested" to see how many correct answers they could recall. The reader is referred to Appendix C to view how the information was "planted" in each of the four information dissemination techniques.

Comparison of the Study Samples

The five study samples were each selected from the same population. For detailed information on this selection process, the reader is referred to the section on "Method For Determining Sample," in Chapter III. The first sample of parents, which numbered seventy-one, represented the pretest; and they completed the survey instrument before any of the four information dissemination techniques were
exposed to the public. The second sample, which numbered forty-two parents, was exposed to the coordinated tape-slide series and then surveyed. The third sample of forty-three parents was surveyed after exposure of the exhibit as an information dissemination technique. The fourth sample, which consisted of forty-one parents, was surveyed after exposure of the newspaper article. And sample five, consisting of forty-one parents, was surveyed after exposure of the newsletter article. In the interest of simplicity, these five samples are referred to in the following discussion as Pretest, Slides, Exhibit, Newspaper, and Newsletter respectively.

**Comparisons Between Pretest and Slides**

In a comparison of the perceptions of the Reynoldsburg High School information program expressed by the Pretest and Slides samples, the Slides group was found to have more favorable perceptions. The response distributions of the samples are significantly different, with a probability of chance occurrence four out of every 100 times, as indicated in Table 5.

A significant difference was also found in favor of the Slides sample, for parents' perception of the Reynoldsburg High School industrial arts program. As indicated in Table 6, the response distributions of the samples have a probability of chance occurrence less than once every 1,000 times.

Moreover, when the focus of the study was narrowed to parents' knowledge of certain aspects of the Industrial arts program, the Slides sample was still found to have greater knowledge. As indicated
in Table 7, the response distributions of the samples are significantly different, with a probability of chance occurrence less than once out of every 1,000 times.

**TABLE 5**

**COMPARISON OF THE PARENTS' PERCEPTION OF THE REYNOLDSBURG HIGH SCHOOL INFORMATION PROGRAM EXPRESSED BY THE PRETEST AND SLIDES SAMPLES**

<table>
<thead>
<tr>
<th>Sample</th>
<th>Cumulative Percentage of Responses</th>
<th>N*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 Least Favorable 2 3 4 5 Most Favorable</td>
<td></td>
</tr>
<tr>
<td>Slides</td>
<td>16.36 36.36 67.27 87.27 100.00</td>
<td>110</td>
</tr>
<tr>
<td>Pretest</td>
<td>29.93 49.30 75.35 94.37 100.00</td>
<td>568</td>
</tr>
</tbody>
</table>

\[ x^2 = 6.77672 \]
\[ df = 2 \]
\[ P = .04 \]

**TABLE 6**

**COMPARISON OF THE PARENTS' PERCEPTION OF THE REYNOLDSBURG HIGH SCHOOL INDUSTRIAL ARTS PROGRAM EXPRESSED BY THE PRETEST AND SLIDES SAMPLES**

<table>
<thead>
<tr>
<th>Sample</th>
<th>Cumulative Percentage of Responses</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 Least Favorable 2 3 4 5 Most Favorable</td>
<td></td>
</tr>
<tr>
<td>Slides</td>
<td>00.00 00.00 07.50 57.50 100.00</td>
<td>120</td>
</tr>
<tr>
<td>Pretest</td>
<td>00.48 06.16 58.29 77.25 100.00</td>
<td>633</td>
</tr>
</tbody>
</table>

\[ x^2 = 104.21685 \]
\[ df = 2 \]
\[ P < .001 \]

*In this and the balance of Tables 5 through 37, N represents the total number of parental responses to the questions.*
TABLE 7
COMPARISON OF THE PARENTS' KNOWLEDGE OF CERTAIN ASPECTS OF THE REYNOLDSBURG HIGH SCHOOL INDUSTRIAL ARTS PROGRAM EXPRESSED BY THE PRETEST AND SLIDES SAMPLES

<table>
<thead>
<tr>
<th>Sample</th>
<th>Cumulative Percentage of Responses</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 Least Knowledge</td>
<td>2</td>
</tr>
<tr>
<td>Slides</td>
<td>13.68</td>
<td>13.68</td>
</tr>
<tr>
<td>Pretest</td>
<td>31.64</td>
<td>32.30</td>
</tr>
</tbody>
</table>

\[ \chi^2 = 31.633764 \]

\[ df = 2 \]

\[ P < .001 \]

In conclusion, one may say that parents have more favorable perceptions of the Reynoldsburg High School information program and the industrial arts program after viewing a coordinated tape-slide series about the industrial arts program. At the same time, one may conclude that knowledge about certain aspects of the industrial arts program can be conveyed through this tape-slide series.

Comparisons Between Pretest and Exhibit

Three of the six comparisons made between the Pretest and Exhibit samples produced significant results. The first such comparison concerned the perceptions of the Reynoldsburg High School information program expressed by the parents. Parents in the Exhibit sample were found to have a better perception of the information program than parents in the Pretest sample. However, as indicated in Table 8, the response distributions are not significantly
different, with a probability of chance occurrence of twenty-two out of every 100 times.

**TABLE 8**

**COMPARISON OF THE PARENTS' PERCEPTION OF THE REYNOLDSBURG HIGH SCHOOL INFORMATION PROGRAM EXPRESSED BY THE PRETEST AND EXHIBIT SAMPLES**

<table>
<thead>
<tr>
<th>Sample</th>
<th>Cumulative Percentage of Responses</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Least Favorable 1 2 3 4 5 Most Favorable</td>
<td></td>
</tr>
<tr>
<td>Exhibit</td>
<td>29.75 45.45 68.69 90.08 100.00</td>
<td>242</td>
</tr>
<tr>
<td>Pretest</td>
<td>29.93 49.30 75.35 94.37 100.00</td>
<td>568</td>
</tr>
</tbody>
</table>

\[ x^2 = 3.09825 \]
\[ df = 2 \]
\[ P = .22 \]

A significant difference was found in the parents' perception of the school information program when comparing those who saw the exhibit, with the Pretest sample. As indicated in Table 9, the response distributions are significantly different in favor of the Exhibit sample, with a probability of chance occurrence eleven out of every 100 times.

In a comparison of perceptions of the industrial arts program expressed by parents in the Pretest and Exhibit samples, parents in the Exhibit were found to have the more favorable perceptions. The distributions of the groups are significantly different for both the total Exhibit sample and those who saw the exhibit, with a probability of chance occurrence less than once out of every 100 times in both cases. This is indicated in Table 10 and Table 11.
No significant differences between the Pretest and Exhibit samples were found with respect to their knowledge of certain aspects of the industrial arts program. The pretest parents tended to have greater knowledge, but the response distributions would occur by chance approximately twenty-four out of every 100 times, as indicated in Table 12. The Pretest sample also showed greater knowledge when comparing it with those who saw the exhibit, but the response distributions would occur by chance twenty-eight out of every 100 times, as indicated in Table 13.

### TABLE 9

**COMPARISON OF THE PARENTS' PERCEPTION OF THE REYNOLDSBURG HIGH SCHOOL INFORMATION PROGRAM EXPRESSED BY THE PRETEST AND THOSE WHO SAW THE EXHIBIT**

<table>
<thead>
<tr>
<th>Sample</th>
<th>Cumulative Percentage of Responses</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1  2  3  4  5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Least Favorable  Most Favorable</td>
<td></td>
</tr>
<tr>
<td>Exhibit</td>
<td>16.28 32.56 67.44 93.02 100.00</td>
<td>43</td>
</tr>
<tr>
<td>Pretest</td>
<td>29.93 49.30 75.35 94.37 100.00</td>
<td>568</td>
</tr>
</tbody>
</table>

\[ \chi^2 = 4.48364 \]
\[ df = 2 \]
\[ P = .11 \]
TABLE 10
COMPARISON OF THE PARENTS' PERCEPTION OF THE REYNOLDSBURG HIGH SCHOOL INDUSTRIAL ARTS PROGRAM EXPRESSED BY THE PRETEST AND EXHIBIT SAMPLES

<table>
<thead>
<tr>
<th>Sample</th>
<th>Cumulative Percentage of Responses</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Least Favorable 1 2 3 4 5 Most Favorable</td>
<td></td>
</tr>
<tr>
<td>Exhibit</td>
<td>03.06 12.27 45.92 74.49 100.00</td>
<td>294</td>
</tr>
<tr>
<td>Pretest</td>
<td>00.48 06.16 58.29 77.25 100.00</td>
<td>633</td>
</tr>
</tbody>
</table>

\[
X^2 = 12.30256 \\
df = 2 \\
P = .01
\]

TABLE 11
COMPARISON OF THE PARENTS' PERCEPTION OF THE REYNOLDSBURG HIGH SCHOOL INDUSTRIAL ARTS PROGRAM EXPRESSED BY THE PRETEST AND THOSE WHO SAW THE EXHIBIT

<table>
<thead>
<tr>
<th>Sample</th>
<th>Cumulative Percentage of Responses</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Least Favorable 1 2 3 4 5 Most Favorable</td>
<td></td>
</tr>
<tr>
<td>Exhibit</td>
<td>06.67 06.67 33.33 54.44 100.00</td>
<td>45</td>
</tr>
<tr>
<td>Pretest</td>
<td>00.48 06.16 58.29 77.25 100.00</td>
<td>633</td>
</tr>
</tbody>
</table>

\[
X^2 = 10.4765 \\
df = 2 \\
P = .01
\]
TABLE 12

COMPARISON OF THE PARENTS' KNOWLEDGE OF CERTAIN ASPECTS OF THE REYNOLDSBURG HIGH SCHOOL INDUSTRIAL ARTS PROGRAM EXPRESSED BY THE PRETEST AND EXHIBIT SAMPLES

<table>
<thead>
<tr>
<th>Sample</th>
<th>Cumulative Percentage of Responses</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Least Knowledge</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Exhibit</td>
<td>32.20</td>
<td>34.15</td>
</tr>
<tr>
<td>Pretest</td>
<td>31.64</td>
<td>32.30</td>
</tr>
</tbody>
</table>

\[ x^2 = 2.9339 \]
\[ df = 2 \]
\[ P = .24 \]

TABLE 13

COMPARISON OF THE PARENTS' KNOWLEDGE OF CERTAIN ASPECTS OF THE REYNOLDSBURG HIGH SCHOOL INDUSTRIAL ARTS PROGRAM EXPRESSED BY THE PRETEST AND THOSE WHO SAW THE EXHIBIT

<table>
<thead>
<tr>
<th>Sample</th>
<th>Cumulative Percentage of Responses</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Least Knowledge</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Exhibit</td>
<td>38.71</td>
<td>41.94</td>
</tr>
<tr>
<td>Pretest</td>
<td>31.64</td>
<td>32.30</td>
</tr>
</tbody>
</table>

\[ x^2 = 2.64625 \]
\[ df = 2 \]
\[ P = .28 \]

In conclusion, one may say that those parents who view an exhibit of industrial arts work have a more favorable perception of the Reynoldsburg High School information program. However, exposure of the exhibit alone does not significantly increase the perception of the information program for those parents who do not view it.
The parents' perception of the industrial arts program increases significantly when an exhibit of industrial arts work is exposed to the public. This favorable perception exists even for those parents who do not view the exhibit.

But this same exhibit will not help the parents to become knowledgeable about certain aspects of the industrial arts program. In fact, the parents were slightly more knowledgeable about the program before the exhibit was held. Even those who viewed the exhibit demonstrated less knowledge than those who did not see it.

Comparisons Between Pretest and Newspaper

Four of the six comparisons made between the Pretest and Newspaper samples produced significant differences. The first such comparison concerned the perceptions of the Reynoldsburg High School information program expressed by the parents. Parents in the Newspaper sample were found to have a better perception than those in the Pretest. As indicated in Table 14, the response distributions are significantly different, with a probability of chance occurrence less than once out of every 100 times.

A comparison of those who read the newspaper article with the Pretest produced evidence that the Newspaper group was more favorable than the Pretest group. However, the response distributions are not significantly different, with a probability of chance occurrence forty out of every 100 times, as indicated in Table 15.
TABLE 14

COMPARISON OF THE PARENTS' PERCEPTION OF THE
REYNOLDSBURG HIGH SCHOOL INFORMATION PROGRAM
EXPRESSED BY THE PRETEST AND NEWSPAPER SAMPLES

<table>
<thead>
<tr>
<th>Sample</th>
<th>Cumulative Percentage of Responses</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 Least Favorable</td>
<td>2</td>
</tr>
<tr>
<td>Newspaper</td>
<td>20.49 40.16 61.47 85.26 100.00</td>
<td>244</td>
</tr>
<tr>
<td>Pretest</td>
<td>29.93 49.30 75.35 94.37 100.00</td>
<td>568</td>
</tr>
</tbody>
</table>

\[X^2 = 11.34756\]  
\[df = 2\]  
\[P = .01\]

TABLE 15

COMPARISON OF THE PARENTS' PERCEPTION OF THE
REYNOLDSBURG HIGH SCHOOL INFORMATION PROGRAM EXPRESSED
BY THE PRETEST AND THOSE WHO SAW THE NEWSPAPER ARTICLE

<table>
<thead>
<tr>
<th>Sample</th>
<th>Cumulative Percentage of Responses</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 Least Favorable</td>
<td>2</td>
</tr>
<tr>
<td>Newspaper</td>
<td>24.44 40.00 64.44 88.89 100.00</td>
<td>45</td>
</tr>
<tr>
<td>Pretest</td>
<td>29.93 49.30 75.35 94.37 100.00</td>
<td>568</td>
</tr>
</tbody>
</table>

\[X^2 = 1.99967\]  
\[df = 2\]  
\[P = .40\]

Significant differences were found in the perception of the industrial arts program exhibited by parents in these groups. In both cases, the parents in the Newspaper sample showed the more favorable perception. As indicated in Table 16, the response distributions for the entire Newspaper sample are significantly
different, with a probability of chance occurrence of eight out of every 100 times.

TABLE 16

COMPARISON OF THE PARENTS' PERCEPTION OF THE REYNOLDSBURG HIGH SCHOOL INDUSTRIAL ARTS PROGRAM EXPRESSED BY THE PRETEST AND NEWSPAPER SAMPLES

<table>
<thead>
<tr>
<th>Sample</th>
<th>Cumulative Percentage of Responses</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Least Favorable</td>
<td>1</td>
</tr>
<tr>
<td>Newspaper</td>
<td></td>
<td>00.00</td>
</tr>
<tr>
<td>Pretest</td>
<td></td>
<td>00.48</td>
</tr>
</tbody>
</table>

$x^2 = 5.03067$
$df = 2$
$P = .08$

A comparison of those who saw the newspaper article with the Pretest produced a significant difference, with a probability of chance occurrence of less than once out of every 1000 times. See Table 17.

TABLE 17

COMPARISON OF THE PARENTS' PERCEPTION OF THE REYNOLDSBURG HIGH SCHOOL INDUSTRIAL ARTS PROGRAM EXPRESSED BY THE PRETEST AND THOSE WHO SAW THE NEWSPAPER ARTICLE

<table>
<thead>
<tr>
<th>Sample</th>
<th>Cumulative Percentage of Responses</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Least Favorable</td>
<td>1</td>
</tr>
<tr>
<td>Newspaper</td>
<td></td>
<td>00.00</td>
</tr>
<tr>
<td>Pretest</td>
<td></td>
<td>00.48</td>
</tr>
</tbody>
</table>

$x^2 = 18.3149$
$df = 2$
$P < .001$
The third comparison, parents' knowledge of certain aspects of the industrial arts program, found that the Pretest sample exhibited greater knowledge in one case, while the Newspaper sample was more knowledgeable in the other. A comparison of the entire Newspaper sample with the Pretest found that the parents in the Pretest were more knowledgeable about the industrial arts program. However, as indicated in Table 18, the response distributions are not significantly different, with a probability of chance occurrence of twenty-five out of every 100 times.

TABLE 18

COMPARISON OF THE PARENTS' KNOWLEDGE OF CERTAIN ASPECTS OF THE REYNOLDSBURG HIGH SCHOOL INDUSTRIAL ARTS PROGRAM EXPRESSED BY THE PRETEST AND NEWSPAPER SAMPLES

<table>
<thead>
<tr>
<th>Sample</th>
<th>Cumulative Percentage of Responses</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 Least Knowledge</td>
<td>2</td>
</tr>
<tr>
<td>Newspaper</td>
<td>35.08</td>
<td>35.08</td>
</tr>
<tr>
<td>Pretest</td>
<td>31.64</td>
<td>32.30</td>
</tr>
</tbody>
</table>

\[ \chi^2 = 2.8429 \]

\[ df = 2 \]

\[ P = .25 \]

A significant difference was found in the parents' knowledge of certain aspects of the industrial arts program, when comparing those who read the newspaper article with the Pretest sample. As indicated in Table 19, the response distributions are significantly different in favor of the Newspaper sample, with a probability of chance occurrence twenty out of every 100 times.
TABLE 19

COMPARISON OF THE PARENTS' KNOWLEDGE OF CERTAIN ASPECTS OF THE REYNOLDSBURG HIGH SCHOOL INDUSTRIAL ARTS PROGRAM EXPRESSED BY THE PRETEST AND THOSE WHO SAW THE NEWSPAPER ARTICLE

<table>
<thead>
<tr>
<th>Sample</th>
<th>Cumulative Percentage of Responses</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Least Knowledge</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1  2  3  4  5 Greatest Knowledge</td>
<td></td>
</tr>
<tr>
<td>Newspaper</td>
<td>22.58 22.58 29.03 29.03 100.00</td>
<td>62</td>
</tr>
<tr>
<td>Pretest</td>
<td>31.64 32.30 37.83 40.93 100.00</td>
<td>904</td>
</tr>
</tbody>
</table>

\[ x^2 = 3.285352 \]
\[ df = 2 \]
\[ P = .20 \]

In conclusion, one may say that a newspaper article about the Reynoldsburg High School industrial arts program will create a favorable perception of the school's information program on the part of parents. However, while this favorable response is significant for the entire sample, it is not significant for those who read the article. At the same time, one may conclude that the parents' perception of the industrial arts program is significantly favorable after exposure of a newspaper article about the program. The perception is also significantly favorable for those who read the article.

A significant difference was not found in the parents' knowledge of certain aspects of the industrial arts program after releasing the newspaper article to the public. However, those who read the article demonstrated a significantly greater knowledge of those aspects of the program than did parents who did not read it.
Comparisons Between Pretest and Newsletter

In a comparison of the perception of the Reynoldsburg High School information program expressed by the Pretest and Newsletter samples, the Newsletter group was found to have more favorable perceptions. The response distributions of the samples are significantly different, with a probability of chance occurrence of three out of every 100 times, as indicated in Table 20.

<table>
<thead>
<tr>
<th>Sample</th>
<th>Cumulative Percentage of Responses</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Least Favorable</td>
<td>Most Favorable</td>
<td></td>
</tr>
<tr>
<td>Newsletter</td>
<td>21.50 38.32 73.83 94.39 100.00</td>
<td>214</td>
</tr>
<tr>
<td>Pretest</td>
<td>29.93 49.30 75.35 94.37 100.00</td>
<td>568</td>
</tr>
</tbody>
</table>

χ² = 7.28424
df = 2
P = .03

A significant difference was not found in the perception of the school's information program exhibited by parents who read the newsletter article. In fact, the Pretest had the more favorable perception, but the response distributions would occur by chance approximately fifty out of every 100 times, as indicated in Table 21.
### TABLE 21

**COMPARISON OF THE PARENTS' PERCEPTION OF THE REYNOLDSBURG HIGH SCHOOL INFORMATION PROGRAM EXPRESSED BY THE PRETEST AND THOSE WHO SAW THE NEWSLETTER ARTICLE**

<table>
<thead>
<tr>
<th>Sample</th>
<th>Cumulative Percentage of Responses</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Least Favorable</td>
<td>1</td>
</tr>
<tr>
<td>Newsletter</td>
<td>27.06</td>
<td>42.35</td>
</tr>
<tr>
<td>Pretest</td>
<td>29.93</td>
<td>49.30</td>
</tr>
</tbody>
</table>

\[ \chi^2 = 1.42975 \]
\[ \text{df} = 2 \]
\[ P = .50 \]

In a comparison of the perception of the industrial arts program expressed by the Pretest and Newsletter samples, parents in the Newsletter sample were found to have the more favorable perception. The distributions of the samples are significantly different, with a probability of chance occurrence less than once out of every 1000 times, as indicated in Table 22.

### TABLE 22

**COMPARISON OF THE PARENTS' PERCEPTION OF THE REYNOLDSBURG HIGH SCHOOL INDUSTRIAL ARTS PROGRAM EXPRESSED BY THE PRETEST AND NEWSLETTER SAMPLES**

<table>
<thead>
<tr>
<th>Sample</th>
<th>Cumulative Percentage of Responses</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Least Favorable</td>
<td>1</td>
</tr>
<tr>
<td>Newsletter</td>
<td>00.00</td>
<td>03.75</td>
</tr>
<tr>
<td>Pretest</td>
<td>00.48</td>
<td>06.16</td>
</tr>
</tbody>
</table>

\[ \chi^2 = 20.2049 \]
\[ \text{df} = 2 \]
\[ P < .001 \]
Those who read the article were also found to have the more favorable perception. The distributions of the samples are significantly different, with a probability of chance occurrence less than once out of every 1000 times, as indicated in Table 23.

**Table 23**

Comparison of the Parents' Perception of the Reynoldsburg High School Industrial Arts Program Expressed by the Pretest and Those Who Saw the Newsletter Article

<table>
<thead>
<tr>
<th>Sample</th>
<th>Cumulative Percentage of Responses</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Least Favorable</td>
<td>3</td>
</tr>
<tr>
<td>Newsletter</td>
<td>00.00</td>
<td>03.33</td>
</tr>
<tr>
<td>Pretest</td>
<td>00.48</td>
<td>06.16</td>
</tr>
</tbody>
</table>

\[ X^2 = 14.770611 \]

\[ \text{df} = 2 \]

\[ P < .001 \]

When the focus of the study was narrowed to knowledge of certain aspects of the industrial arts program, parents in the Newsletter sample were found to have greater knowledge. However, the response distributions would occur by chance ninety out of every 100 times, as indicated in Table 24.

As Table 25 indicates, for those parents who read the article, the response distributions would occur by chance sixty-nine out of every 100 times.

One may conclude that parents' perception of the Reynoldsburg High School information program will be favorable upon the release of the newsletter containing an article about the industrial arts program.
While this perception will be significant upon release of the article, there will be no significant difference in perception for those parents who read it. At the same time, the parents' perception of the industrial arts program will be favorable, and the difference will be significant.

There will be no increase in parents' knowledge about certain aspects of the industrial arts program from the article, whether they read it or not.

**TABLE 24**

COMPARISON OF THE PARENTS' KNOWLEDGE OF CERTAIN ASPECTS OF THE REYNOLDSBURG HIGH SCHOOL INDUSTRIAL ARTS PROGRAM EXPRESSED BY THE PRETEST AND NEWSLETTER SAMPLES

<table>
<thead>
<tr>
<th>Sample</th>
<th>Cumulative Percentage of Responses</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Newsletter</td>
<td>30.86</td>
<td>30.86</td>
</tr>
<tr>
<td>Pretest</td>
<td>31.64</td>
<td>32.30</td>
</tr>
</tbody>
</table>

\[ X^2 = .208908 \]
\[ df = 2 \]
\[ P = .90 \]
The four information dissemination techniques—Slides, Exhibit, Newspaper, and Newsletter—were compared statistically to determine the order of effectiveness of the four in terms of parents' perception of industrial arts at Reynoldsburg High School, and their knowledge of certain aspects of the program. Statistical analysis was applied to the data derived from only those parents who viewed the technique being tested. See Table 40 for the number of parents who viewed each technique.

In a comparison of the perceptions of the Reynoldsburg High School industrial arts program expressed by the Slides and Exhibit groups, the Slides sample was found to have more favorable perceptions. The response distributions of the samples are significantly different, with a probability of chance occurrence two out of every 100 times, as indicated in Table 26.
TABLE 26
COMPARISON OF THE PARENTS' PERCEPTION OF THE REYNOLDSBURG HIGH SCHOOL INDUSTRIAL ARTS PROGRAM EXPRESSED BY THOSE WHO SAW THE SLIDES AND EXHIBIT

<table>
<thead>
<tr>
<th>Sample</th>
<th>Cumulative Percentage of Responses</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Least Favorable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Slides</td>
<td>00.00 00.00 07.50 57.50 100.00</td>
<td>120</td>
</tr>
<tr>
<td>Exhibit</td>
<td>06.67 06.67 33.33 54.44 100.00</td>
<td>45</td>
</tr>
</tbody>
</table>

\[ X^2 = 8.60889 \]
\[ df = 2 \]
\[ P = .02 \]

A significant difference was also found in favor of the Slides group, for the parents' knowledge of certain aspects of the industrial arts program. As indicated in Table 27, the response distributions of the samples have a probability of chance occurrence less than once out of every 1000 times.

TABLE 27
COMPARISON OF THE PARENTS' KNOWLEDGE OF CERTAIN ASPECTS OF THE REYNOLDSBURG HIGH SCHOOL INDUSTRIAL ARTS PROGRAM EXPRESSED BY THOSE WHO SAW THE SLIDES AND EXHIBIT

<table>
<thead>
<tr>
<th>Sample</th>
<th>Cumulative Percentage of Responses</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Least Knowledge</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>Slides</td>
<td>13.68 13.68 24.79 24.79 100.00</td>
<td>234</td>
</tr>
<tr>
<td>Exhibit</td>
<td>38.71 41.94 48.39 51.61 100.00</td>
<td>62</td>
</tr>
</tbody>
</table>

\[ X^2 = 15.6531 \]
\[ df = 2 \]
\[ P < .001 \]
In a comparison of the perceptions of the Reynoldsburg High School industrial arts program expressed by the Slides and Newspaper groups, the Slides sample again was found to have more favorable perceptions. The response distributions of the samples are significantly different, with a probability of chance occurrence eleven out of every 100 times, as indicated in Table 28.

**TABLE 28**

**COMPARISON OF THE PARENTS' PERCEPTION OF THE REYNOLDSBURG HIGH SCHOOL INDUSTRIAL ARTS PROGRAM EXPRESSED BY THOSE WHO SAW THE SLIDES AND NEWSPAPER ARTICLE**

<table>
<thead>
<tr>
<th>Sample</th>
<th>Cumulative Percentage of Responses</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Slides</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Newspaper</td>
<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

\[ X^2 = 4.46856 \]
\[ df = 2 \]
\[ P = .11 \]

A comparison of the parents who viewed the Slides with those who read the Newspaper article produced evidence that greater knowledge was acquired from the slides. However, the response distributions are not significantly different, with a probability of chance occurrence forty-seven out of every 100 times, as indicated in Table 29.

A comparison of the Slides and Newsletter samples once again produced evidence in favor of the Slides. The parents' perception of the industrial arts program is significantly different, with a probability of chance occurrence of less than once out of every 1000.
times, as indicated in Table 30.

Knowledge of certain aspects of the program is also significantly different in favor of the Slides sample, with a probability of chance occurrence of less than once out of every 100 times, as indicated in Table 31.

TABLE 29

COMPARISON OF THE PARENTS' KNOWLEDGE OF CERTAIN ASPECTS OF THE REYNOLDSBURG HIGH SCHOOL INDUSTRIAL ARTS PROGRAM EXPRESSED BY THOSE WHO SAW THE SLIDES AND NEWSPAPER ARTICLE

<table>
<thead>
<tr>
<th>Sample</th>
<th>Cumulative Percentage of Responses</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Least Knowledge</td>
<td>1</td>
</tr>
<tr>
<td>Slides</td>
<td></td>
<td>13.68</td>
</tr>
<tr>
<td>Newspaper</td>
<td></td>
<td>22.58</td>
</tr>
</tbody>
</table>

\[ X^2 = 1.55252 \]
\[ df = 2 \]
\[ P = .47 \]

TABLE 30

COMPARISON OF THE PARENTS' PERCEPTION OF THE REYNOLDSBURG HIGH SCHOOL INDUSTRIAL ARTS PROGRAM EXPRESSED BY THOSE WHO SAW THE SLIDES AND NEWSLETTER ARTICLE

<table>
<thead>
<tr>
<th>Sample</th>
<th>Cumulative Percentage of Responses</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Least Favorable</td>
<td>1</td>
</tr>
<tr>
<td>Slides</td>
<td></td>
<td>00.00</td>
</tr>
<tr>
<td>Newsletter</td>
<td></td>
<td>00.00</td>
</tr>
</tbody>
</table>

\[ X^2 = 16.75684 \]
\[ df = 2 \]
\[ P < .001 \]
### TABLE 31
COMPARISON OF THE PARENTS' KNOWLEDGE OF CERTAIN ASPECTS
OF THE REYNOLDSBURG HIGH SCHOOL INDUSTRIAL ARTS PROGRAM
EXPRESSED BY THOSE WHO SAW THE SLIDES AND NEWSLETTER ARTICLE

<table>
<thead>
<tr>
<th>Sample</th>
<th>Cumulative Percentage of Responses</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Least Knowledge</td>
<td>Greatest Knowledge</td>
</tr>
<tr>
<td>Slides</td>
<td>13.68</td>
<td>13.68</td>
</tr>
<tr>
<td>Newsletter</td>
<td>28.95</td>
<td>28.95</td>
</tr>
</tbody>
</table>

\[ x^2 = 9.586385 \]
\[ df = 2 \]
\[ P = .01 \]

In a comparison of the perceptions of the Reynoldsburg High
School industrial arts program expressed by the Exhibit and News­
paper groups, the Newspaper sample was found to have more favorable
perceptions. However, the response distributions of the samples are
not significantly different, with a probability of chance occurrence
thirty-three out of every 100 times, as indicated in Table 32.

### TABLE 32
COMPARISON OF THE PARENTS' PERCEPTION OF THE
REYNOLDSBURG HIGH SCHOOL INDUSTRIAL ARTS PROGRAM EXPRESSED
BY THOSE WHO SAW THE EXHIBIT AND NEWSPAPER ARTICLE

<table>
<thead>
<tr>
<th>Sample</th>
<th>Cumulative Percentage of Responses</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Least Favorable</td>
<td>Most Favorable</td>
</tr>
<tr>
<td>Exhibit</td>
<td>06.67</td>
<td>06.67</td>
</tr>
<tr>
<td>Newspaper</td>
<td>00.00</td>
<td>00.00</td>
</tr>
</tbody>
</table>

\[ x^2 = 2.26006 \]
\[ df = 2 \]
\[ P = .33 \]
A significant difference was found in favor of the Newspaper sample, for the parents' knowledge of certain aspects of the industrial arts program. As indicated in Table 33, the response distributions of the samples have a probability of chance occurrence of five out of every 100 times.

**TABLE 33**

**COMPARISON OF THE PARENTS' KNOWLEDGE OF CERTAIN ASPECTS OF THE REYNOLDSBURG HIGH SCHOOL INDUSTRIAL ARTS PROGRAM EXPRESSED BY THOSE WHO SAW THE EXHIBIT AND NEWSPAPER ARTICLE**

<table>
<thead>
<tr>
<th>Sample</th>
<th>Cumulative Percentage of Responses</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 Least Knowledge 2</td>
<td>3</td>
</tr>
<tr>
<td>Exhibit</td>
<td>38.71 41.94 48.39 51.61 100.00</td>
<td>62</td>
</tr>
<tr>
<td>Newspaper</td>
<td>22.58 22.58 29.03 29.03 100.00</td>
<td>62</td>
</tr>
</tbody>
</table>

$X^2 = 6.29458$

$df = 2$

$P = .05$

A comparison of the Exhibit and Newsletter groups for perceptions of the Reynoldsburg High School industrial arts program, produced a significant difference in favor of the Exhibit sample. As indicated in Table 34, the response distributions of the samples are significantly different, with a probability of chance occurrence five out of every 100 times.

Greater knowledge about the industrial arts program was acquired from the newsletter; however, the difference was not significant. The response distributions of the samples are not significantly different, with a probability of chance occurrence
twenty-three out of every 100 times, as indicated in Table 35.

**TABLE 34**

**COMPARISON OF THE PARENTS' PERCEPTION OF THE REYNOLDSBURG HIGH SCHOOL INDUSTRIAL ARTS PROGRAM EXPRESSED BY THOSE WHO SAW THE EXHIBIT AND NEWSLETTER ARTICLE**

<table>
<thead>
<tr>
<th>Sample</th>
<th>Cumulative Percentage of Responses</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Least Favorable (1)</td>
<td>2</td>
</tr>
<tr>
<td>Exhibit</td>
<td>06.67</td>
<td>06.67</td>
</tr>
<tr>
<td>Newsletter</td>
<td>00.00</td>
<td>03.33</td>
</tr>
</tbody>
</table>

\[X^2 = 5.93007\]
\[df = 2\]
\[P = .05\]

**TABLE 35**

**COMPARISON OF THE PARENTS' KNOWLEDGE OF CERTAIN ASPECTS OF THE REYNOLDSBURG HIGH SCHOOL INDUSTRIAL ARTS PROGRAM EXPRESSED BY THOSE WHO SAW THE EXHIBIT AND NEWSLETTER ARTICLE**

<table>
<thead>
<tr>
<th>Sample</th>
<th>Cumulative Percentage of Responses</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Least Knowledge (1)</td>
<td>2</td>
</tr>
<tr>
<td>Exhibit</td>
<td>39.71</td>
<td>41.94</td>
</tr>
<tr>
<td>Newsletter</td>
<td>28.95</td>
<td>28.95</td>
</tr>
</tbody>
</table>

\[X^2 = 2.969826\]
\[df = 2\]
\[P = .23\]
The final comparisons to be made between the information dissemination techniques are between the Newspaper and the Newsletter. Although the Newspaper sample exhibited the more favorable perception, as well as greater knowledge of the industrial arts program, neither their perception of their knowledge were significantly different. The response distributions of the samples for perception of the industrial arts program have a probability of chance occurrence of thirty-eight out of every 100 times, as indicated in Table 36.

**TABLE 36**

**COMPARISON OF THE PARENTS' PERCEPTION OF THE REYNOLDSBURG HIGH SCHOOL INDUSTRIAL ARTS PROGRAM EXPRESSED BY THOSE WHO SAW THE NEWSPAPER AND NEWSLETTER ARTICLES**

<table>
<thead>
<tr>
<th>Sample</th>
<th>Cumulative Percentage of Responses</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 Least Favorable</td>
<td>2</td>
</tr>
<tr>
<td>Newspaper</td>
<td>00.00</td>
<td>00.00</td>
</tr>
<tr>
<td>Newsletter</td>
<td>00.00</td>
<td>03.33</td>
</tr>
</tbody>
</table>

\[ X^2 = 1.99463 \]
\[ df = 2 \]
\[ p = .38 \]

As indicated in Table 37, the response distributions of the samples for knowledge of certain aspects of the industrial arts program have a probability of chance occurrence of twenty-nine out of every 100 times.
TABLE 37
COMPARISON OF THE PARENTS' KNOWLEDGE OF CERTAIN ASPECTS
OF THE REYNOLDSBURG HIGH SCHOOL INDUSTRIAL ARTS PROGRAM
EXPRESSED BY THOSE WHO SAW THE NEWSPAPER AND NEWSLETTER ARTICLES

<table>
<thead>
<tr>
<th>Sample</th>
<th>Cumulative Percentage of Responses</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Least Knowledge</td>
<td>Greatest Knowledge</td>
</tr>
<tr>
<td>Newspaper</td>
<td>22.58</td>
<td>29.03</td>
</tr>
<tr>
<td>Newsletter</td>
<td>28.95</td>
<td>40.93</td>
</tr>
</tbody>
</table>

\[ \chi^2 = 2.49234 \]
\[ df = 2 \]
\[ P = .29 \]

In conclusion, one may say that a more favorable perception of the industrial arts program at Reynoldsburg High School is gained through the use of a coordinated tape-slide program, as opposed to an exhibit, newspaper article, or newsletter article. In each case, the difference between the slides and other three techniques—exhibit, newspaper article, and newsletter article—is significant.

Greater knowledge of certain aspects of the program will also be gained from the slide program. The difference between the slides and two techniques—exhibit and newsletter article—is significant, while it is not significantly different between the slides and the newspaper article.

The newspaper sample was found to exhibit a more favorable perception of the industrial arts program when compared with the exhibit and newsletter article. However, there was no significant difference in either comparison. When comparing the newspaper
article with the exhibit and newsletter samples for knowledge of certain aspects of the industrial arts program, the newspaper article sample demonstrated greater knowledge gained by the parents in both comparisons. However, the only significant difference occurred between the newspaper article and exhibit samples.

The only comparison where the exhibit fared better, was the comparison of it with the newsletter article for perception of the industrial arts program. The difference was significant in favor of the exhibit. And, at the same time, the newsletter was the better information dissemination technique only in comparison with the exhibit sample for knowledge gained about certain aspects of the industrial arts program. However, in this case, the difference was not significant.

**Analysis of Knowledge Questions on Survey Instrument**

Four questions on the survey instrument--numbers 7, 10, 12, and 13--were knowledge questions which required a correct answer from the respondents. Table 38 offers a comparison of the percent of correct replies for each sample. As is illustrated, the Slides group had the higher percent of correct replies for each of the four questions. This data is consistent with the just completed statistical analysis of the four information dissemination techniques.

Table 39 and Table 40 offer a comparison between those who were not exposed to the information dissemination technique--Table 39--and those who were exposed to a technique--Table 40. The only
technique where those who were exposed to the information scored lower than those who were not exposed to it, is the exhibit. This is the case in three of the four questions—7, 10, and 13—for the exhibit.

**TABLE 38**  

PERCENT OF CORRECT ANSWERS FOR "PLANTED" INFORMATION FOR ALL PARENTS

<table>
<thead>
<tr>
<th>Sample</th>
<th>Questionnaire Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>7</td>
</tr>
<tr>
<td>Pretest</td>
<td>82%</td>
</tr>
<tr>
<td>Slides</td>
<td>93%</td>
</tr>
<tr>
<td>Exhibit</td>
<td>78%</td>
</tr>
<tr>
<td>Newspaper</td>
<td>69%</td>
</tr>
<tr>
<td>Newsletter</td>
<td>88%</td>
</tr>
</tbody>
</table>

*This is maximum number for each sample—lower for some questions since all respondents did not answer every question
### TABLE 39
PERCENT OF CORRECT ANSWERS FOR "PLANTED" INFORMATION
FOR PARENTS WHO DID NOT SEE THE TECHNIQUE

<table>
<thead>
<tr>
<th>Sample</th>
<th>Questionnaire Numbers</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>Slides</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exhibit</td>
<td>81%</td>
<td>75%</td>
</tr>
<tr>
<td>Newspaper</td>
<td>67%</td>
<td>63%</td>
</tr>
<tr>
<td>Newsletter</td>
<td>84%</td>
<td>70%</td>
</tr>
</tbody>
</table>

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### TABLE 40
PERCENT OF CORRECT ANSWERS FOR "PLANTED" INFORMATION
FOR PARENTS WHO DID SEE TECHNIQUE

<table>
<thead>
<tr>
<th>Sample</th>
<th>Questionnaire Numbers</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>Slides</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exhibit</td>
<td>93%</td>
<td>84%</td>
</tr>
<tr>
<td>Newspaper</td>
<td>60%</td>
<td>60%</td>
</tr>
<tr>
<td>Newsletter</td>
<td>80%</td>
<td>80%</td>
</tr>
<tr>
<td></td>
<td>100%</td>
<td>70%</td>
</tr>
</tbody>
</table>

*This is maximum number for each sample—lower for some questions since all respondents did not answer every question.
A comparison of the replies of parents with children in the industrial arts program—Table 41—with the replies from the total sample—Table 38—produced evidence of little difference between the samples regarding knowledge about the program. This indicates that parents of children in the industrial arts program are no more informed about the program than are parents without children in it.

TABLE 41

PERCENT OF CORRECT ANSWERS FOR "PLANTED" INFORMATION FOR PARENTS WITH CHILDREN IN INDUSTRIAL ARTS PROGRAM

<table>
<thead>
<tr>
<th>Sample</th>
<th>Questionnaire Numbers</th>
<th></th>
<th></th>
<th></th>
<th>Number*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>7</td>
<td>10</td>
<td>61</td>
<td>13</td>
<td></td>
</tr>
<tr>
<td>Pretest</td>
<td>91%</td>
<td>68%</td>
<td>54%</td>
<td>0%</td>
<td>11</td>
</tr>
<tr>
<td>Slides</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Exhibit</td>
<td>100%</td>
<td>67%</td>
<td>44%</td>
<td>14%</td>
<td>7</td>
</tr>
<tr>
<td>Newspaper</td>
<td>57%</td>
<td>76%</td>
<td>50%</td>
<td>14%</td>
<td>7</td>
</tr>
<tr>
<td>Newsletter</td>
<td>100%</td>
<td>67%</td>
<td>67%</td>
<td>33%</td>
<td>3</td>
</tr>
</tbody>
</table>

*This is maximum number for each sample—lower for some questions since all respondents did not answer every question

In conclusion, one may say that the parents exhibited greater knowledge about the Reynoldsburg High School industrial arts program from the slides, than from the exhibit, newspaper article, or newsletter article. One may also conclude that those who viewed the slides, newspaper article, and newsletter article, exhibited greater knowledge about the program than those who did not view these
information dissemination techniques. But those who viewed the exhibit demonstrated less knowledge than those who did not see it. Parents with children in the industrial arts program did not exhibit any greater knowledge about the program than did parents without children in the program.

**Analysis of General Information Questions**

Of the 238 parents who responded to the survey instrument, only sixteen have ever visited the Reynoldsburg High School industrial arts laboratories. Of these Sixteen, eleven do not have any children in the program, while five do, as indicated in Table 42.

**TABLE 42**

**PARENTS WHO HAVE VISITED INDUSTRIAL ARTS LABORATORY—WITH CHILDREN AND WITHOUT CHILDREN IN PROGRAM**

<table>
<thead>
<tr>
<th>Sample</th>
<th>No Children In Program</th>
<th>Children In Program</th>
<th>Possible N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M  F</td>
<td>M  F</td>
<td>N</td>
</tr>
<tr>
<td>Pretest</td>
<td>2  2</td>
<td>1  1</td>
<td>6</td>
</tr>
<tr>
<td>Slides</td>
<td>1  0</td>
<td>0  0</td>
<td>1</td>
</tr>
<tr>
<td>Exhibit</td>
<td>1  0</td>
<td>1  1</td>
<td>3</td>
</tr>
<tr>
<td>Newspaper</td>
<td>2  0</td>
<td>0  0</td>
<td>2</td>
</tr>
<tr>
<td>Newsletter</td>
<td>2  1</td>
<td>0  1</td>
<td>4</td>
</tr>
<tr>
<td>Totals</td>
<td>8  3</td>
<td>2  3</td>
<td>16</td>
</tr>
</tbody>
</table>

Sixty-five of the 238 parents had industrial arts when they were in school. Of the sixty-five, only eight now have children in the industrial arts program, as indicated in Table 43.
TABLE 43
PARENTS WHO HAD INDUSTRIAL ARTS IN SCHOOL
AND CHILDREN WHO NOW HAVE IT

<table>
<thead>
<tr>
<th>Sample</th>
<th>Parents Who Had Industrial Arts</th>
<th>Children In Industrial Arts</th>
<th>Possible N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>F</td>
<td>M</td>
</tr>
<tr>
<td>Pretest</td>
<td>24</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Slides</td>
<td>8</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Exhibit</td>
<td>9</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Newspaper</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Newsletter</td>
<td>10</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Totals</td>
<td>54</td>
<td>11</td>
<td>8</td>
</tr>
</tbody>
</table>

As indicated in Table 44, over one-half of the parents who responded to the question—number 14 on the survey instrument—would like to receive more information about the industrial arts program. The request was split almost in half between fathers and mothers.

TABLE 44
PARENTS WHO WOULD LIKE TO KNOW MORE
ABOUT INDUSTRIAL ARTS PROGRAM

<table>
<thead>
<tr>
<th>Sample</th>
<th>Yes</th>
<th>No</th>
<th>Not Certain</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>F</td>
<td>M</td>
<td>F</td>
</tr>
<tr>
<td>Pretest</td>
<td>27</td>
<td>22</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Slides</td>
<td>12</td>
<td>6</td>
<td>12</td>
<td>3</td>
</tr>
<tr>
<td>Exhibit</td>
<td>10</td>
<td>10</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Newspaper</td>
<td>6</td>
<td>9</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Newsletter</td>
<td>10</td>
<td>6</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Totals</td>
<td>65</td>
<td>53</td>
<td>23</td>
<td>15</td>
</tr>
</tbody>
</table>
Chapter Summary

By referring to the summary table on the next page—Table 45—it will be noted that significant differences were found in twenty of the thirty-three two-group comparisons. Of the twenty comparisons which yielded findings of significant difference in the response distributions of the samples being compared, eight involved comparisons where the Slide samples were significant; five involved comparisons where the Newspaper sample was significant; four involved comparisons where the Exhibit sample was significant, and three involved comparisons where the Newsletter sample was significant.

Four of the twenty significant differences were found in parents' perception of the school information program; eleven were found in parents' perception of the industrial arts program, and five were found in parents' knowledge of certain aspects of the industrial arts program. These comparisons provide the basis for the interpretation of findings presented in Chapter V.

Should the reader wish to accept the significant differences at the .05 level instead of .20 as this investigator has done, it can be seen on Table 45 on the next page that significant differences were found in sixteen of the thirty-three two-group comparisons at the .05 level. By referring to Table 45 it will be noted that the four two-group comparisons falling between .05 and .20 are: Exhibit - Pretest .11, Newspaper - Pretest .08, Newspaper - Pretest .20, and Slides - Newspaper .11.
## TABLE 45

LEVEL OF SIGNIFICANCE FOR EACH OF THE THIRTY-THREE TWO-SAMPLE COMPARISONS

<table>
<thead>
<tr>
<th>Sample</th>
<th>Perception</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>School Information Program</td>
<td>Industrial Arts Program</td>
<td>Knowledge</td>
</tr>
<tr>
<td></td>
<td>Total Sample</td>
<td>Viewed Technique</td>
<td>Total Sample</td>
</tr>
<tr>
<td>Slides</td>
<td>-</td>
<td>.04</td>
<td>-</td>
</tr>
<tr>
<td>Pretest</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Exhibit</td>
<td>.22</td>
<td>.11</td>
<td>.01</td>
</tr>
<tr>
<td>Pretest</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Newspaper</td>
<td>.01</td>
<td>.40</td>
<td>.08</td>
</tr>
<tr>
<td>Pretest</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Newsletter</td>
<td>.03</td>
<td>-</td>
<td>.001</td>
</tr>
<tr>
<td>Pretest</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Slides</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Exhibit</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Slides</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Newspaper</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Slides</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Newsletter</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Exhibit</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Newspaper</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Exhibit</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Newsletter</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Newspaper</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Newsletter</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**HOW TO READ TABLE:** The numbers in the table represent the levels of significance for each of the samples compared in the two-group contingency tables in this chapter. The sample the number is directly in line with represents the sample favored at that level of significance. The reader is reminded that the accepted level of significance for this study is .20.

**EXAMPLE:** Locate Newsletter and Pretest samples comparison for perception of school Information program. The Newsletter sample is favored at a .03 level of significance when comparing the total Newsletter sample with the Pretest sample. However, the Pretest sample is favored at a .50 level of significance when comparing those who saw the Newsletter article with the Pretest sample.
CHAPTER V

INTERPRETATION OF THE FINDINGS

Summary

The major purpose of this study was to determine the relative effectiveness of four techniques for disseminating information about a school's industrial arts program to the parents of a school's entire student body. "Effectiveness" was defined to mean the public's perception and understanding of an industrial arts program after information about the program has been made available to them.

A wealth of information in the literature stresses the importance of schools keeping their public informed regarding school matters. Recent evidence of the need for communicating the school's program was provided by a national survey of the public's attitudes toward public schools (Gallup, 1969). This survey concluded that although the public wants information about schools, they are ill-informed about education. An exhaustive review of research in education in general and industrial arts in particular, failed to locate empirical research related to the "effectiveness" of techniques used to present industrial arts information to the public. The desirability of and necessity for conducting such a study seemed evident from the absence of such research and pertinent literature on the phenomenon and on the coming of a "new" industrial arts...
which must be publicized.

Fifteen "communication techniques" were considered as possible dimensions for investigation in the study: booklet, exhibit, home visit, leaflet, meeting, motion pictures, newsletter, newspaper, open house, pupils, radio, slides, speech, teachers, and television. If all techniques were used, contamination across samples would increase, with a resultant decrease in data reliability. For this and other reasons, it was decided that only four of the fifteen possible dimensions could be covered in sufficient depth in a reasonable amount of time in a survey situation with subjects selected for the study. Exhibit, newsletter, newspaper, and slides were selected as four techniques to investigate in this initial study of the "effectiveness" of communication techniques.

For the purposes of the study, eight hypotheses were developed. First, it was hypothesized that there are no significant differences in parents' understanding of a school's industrial arts program before and after they view a coordinated tape-slide series about the program. Second, it was hypothesized that there are no significant differences in parents' understanding of a school's industrial arts program before and after an exhibit of the students' work is made available to them for viewing. Third, it was hypothesized that there are no significant differences in parents' understanding of a school's industrial arts program before and after they view an exhibit of student work. Fourth, it was hypothesized that there are no significant differences in parents' understanding of a
school's industrial arts program before and after an article about the program appears in the community newspaper. Fifth, it was hypothesized that there are no significant differences in parents' understanding of a school's industrial arts program before and after they read an article about the program in the community newspaper. Sixth, it was hypothesized that there are no significant differences in parents' understanding of a school's industrial arts program before and after an article about the program appears in the school newsletter. Seventh, it was hypothesized that there are no significant differences in parents' understanding of a school's industrial arts program before and after they read an article about the program in the school newsletter. And eighth, it was hypothesized that there are no significant differences in effectiveness between and among the four techniques used in this study to disseminate information about an industrial arts program to the parents.

Three major limitations were imposed on the study. It was limited in communication techniques to a coordinated tape-slide series, an exhibit, a newspaper article, and a newsletter article. It was limited to a single curriculum program—industrial arts, and to one high school district. Therefore, the findings of this study are generalizable only to the extent that 1) the structure and content of the four communication techniques are typical of those employed in other school districts, 2) the content of the industrial arts program studied is typical of that of programs in other school districts, and 3) that conditions in the district studied are typical
of conditions in other school districts.

Since the findings established through the study depend in part upon the quality of communications between one high school and the respondents, it is necessary to indicate that other limitations pertaining to the communications process were imposed on this study. Specialists in communications recognize five major elements of effective communication: 1) a judicious selection of the communications medium through which the message is to be conveyed, 2) an indepth understanding of the audience with whom the person or institution wishes to communicate, 3) a tailoring of the message for the particular audience, 4) a critical approach to the timing of the message, and 5) provision for two-way communication. The primary focus of this study was on the first of these five elements. It was reasoned that the study could at best provide definite information about the effectiveness of four of the possible mediums through which a message could be conveyed to an audience. Therefore, the remaining four elements of effective communication were regarded as the province of other investigative efforts. However, as discussed later in this chapter, the findings of this study do point to the need for new and sound strategies with respect to the content and timing of communicating information, understanding the audience, and providing two-way communications.

Data for the study were obtained from a questionnaire mailed to 300 parents of students at one high school. After extensive follow-up procedures, 238 of the possible 300 parents completed and returned the survey instruments. The number of respondents for each
sample are: seventy-one for the pretest, forty-two for the slides, forty-three for the exhibit, forty-one for the newspaper, and forty-one for the newsletter.

Nine two-group contingency tables were prepared to compare response distributions based on the coordinated tape-slide series. Twelve such tables were prepared to compare the response distributions based on the exhibit. Another twelve tables were prepared to compare response distributions based on the newspaper article. And twelve such tables were also prepared to compare response distributions based on the newsletter article. The Kolmogorov-Smirnov Two Sample Test was employed to analyze the data.

Test of the First Hypothesis

It was hypothesized that there are no differences in parents' understanding of a school's industrial arts program before and after they view a coordinated tape-slide series about the program.

In the study, those parents viewing the coordinated tape-slide series were found to have more favorable perceptions of the Reynoldsburg High School information program and more favorable perceptions of the industrial arts program. When the parents who did not view the slide series and those who did were compared regarding knowledge of certain aspects of the industrial arts program, the parents who viewed the series were found to have greater knowledge about the program. Therefore, the hypothesis that 'There are no differences in parents' understanding of a school's industrial arts program before and after they view a coordinated
tape-slide series about the program" is rejected in favor of its alternate that "The parents' understanding of a school's industrial arts program will increase after they view a coordinated tape-slide series about the program."

Test of the Second Hypothesis

It was hypothesized that there are no differences in parents' understanding of a school's industrial arts program before and after an exhibit of student work is made available to them for viewing.

No significant differences were found when comparisons were made with respect to the parents' perceptions of the school information program after the release of an industrial arts exhibit for public viewing. However, significant differences were found when comparisons were made with respect to the parents' perceptions of the industrial arts program. Parents responding after the showing of the exhibit demonstrated a more favorable perception of the industrial arts program than did those responding before the exhibit occurred.

When comparisons were made regarding parents' knowledge about certain aspects of the industrial arts program, no differences were found in parents' knowledge before and after the exhibit was released for public viewing. Of the three items tested, there was a significant difference in one of them. Therefore, the hypothesis that "There are no differences in parents' understanding of a school's industrial arts program before and after an exhibit of student work is made available to them for 'viewing'" is rejected.
in favor of the alternate hypothesis that "The parents' understanding of a school's industrial arts program will increase after an exhibit of student work is made available to them for viewing."

**Test of the Third Hypothesis**

It was hypothesized that there are no differences in parents' understanding of a school's industrial arts program before and after they view an exhibit of student work.

Significant differences were found when comparisons were made with respect to those parents who viewed the exhibit and those who did not. Parents who viewed the exhibit were found to have more favorable perceptions of both the school information program and the industrial arts program. However, there were no differences between either group of parents when their knowledge of certain aspects of the program was compared. Two of the three items tested demonstrated significant differences in favor of the parents' who viewed the exhibit. Therefore, the hypothesis that "There are no differences in parents understanding of a school's industrial arts program before and after they view an exhibit of student work" is rejected in favor of its alternate: "The parents' understanding of a school's industrial arts program will increase after they view an exhibit of student work."

**Test of the Fourth Hypothesis**

It was hypothesized that there are no differences in parents' understanding of a school's industrial arts program before and after
an article about the program appears in the community newspaper.

Significant differences were found when comparisons were made with respect to the parents' perceptions of the school information program after release of an article about the school's industrial arts program in the local newspaper. Parents' responding after the release of the article demonstrated a more favorable perception of the school information program. The same parents were also found to have a more favorable perception of the industrial arts program after the release of the article.

When comparisons were made regarding parents' knowledge about certain aspects of the industrial arts program, no differences were found in parents' knowledge before and after the newspaper article was published in the local newspaper. Two of the items tested were significantly different. Therefore, the hypothesis that "There are no differences in parents' understanding of a school's industrial arts program before and after an article about the program appears in the community newspaper" is rejected in favor of its alternate. The alternate hypothesis being that "The parents' understanding of a school's industrial arts program will increase after an article about the program appears in the community newspaper."

Test of the Fifth Hypothesis

It was hypothesized that there are no differences in parents' understanding of a school's industrial arts program before and after they read an article about the program in the community newspaper.
In the study, those parents reading the newspaper article were found to have the same perceptions of the school information program as those of parents who did not read the article. However, when comparisons were made regarding the parents' perceptions of the industrial arts program, the parents who read the article were found to have the more favorable perception. These same parents were also found to exhibit greater knowledge about certain aspects of the program. Once again, two of the three items tested were found to be significantly different, this time in favor of those who read the newspaper article. Therefore, the hypothesis that "There are no differences in parents' understanding of a school's industrial arts program before and after they read an article about the program in the community newspaper" is rejected in favor of its alternate that "The parents' understanding of a school's industrial arts program will increase after they read an article about the program in the community newspaper."

Test of the Sixth Hypothesis

It was hypothesized that there are no differences in parents' understanding of a school's industrial arts program before and after an article about the program appears in the school newsletter.

Significant differences were found when comparisons were made with respect to the parents' perceptions of the school information program after the release of an article about the school's industrial arts program in the school district newsletter. Parents responding after the release of the article demonstrated a more
favorable perception of the school information program. The same parents were also found to have a more favorable perception of the industrial arts program after the release of the article.

When comparisons were made regarding parents' knowledge about certain aspects of the industrial arts program, no differences were found before and after the newsletter article was published in the school district newsletter. Of the items tested, two were significantly different. Therefore, the hypothesis that "There are no differences in parents' understanding of a school's industrial arts program before and after an article about the program appears in the school newsletter" is rejected in favor of the alternate hypothesis that "The parents' understanding of a school's industrial arts program will increase after an article about the program appears in the school newsletter."

Test of the Seventh Hypothesis

It was hypothesized that there are no differences in parents' understanding of a school's industrial arts program before and after they read an article about the program in the school newsletter.

No significant differences were found when comparisons were made between parents who read the newsletter article and those who did not, with respect to their perceptions of the school information program. But significant differences were identified when comparisons were made with respect to the parents' perceptions of the industrial arts program. With respect to their knowledge about certain aspects of the industrial arts program, no differences
were found between parents who read the article and those who did not. One of the three items tested produced a significant difference. Therefore, the hypothesis that "There are no differences in parents' understanding of a school's industrial arts program before and after they read an article about the program in the school newsletter" is rejected in favor of its alternate: "The parents understanding of a school's industrial arts program will increase after they read an article about the program in the school newsletter."

**Test of the Eighth Hypothesis**

It was hypothesized that there are no differences in effectiveness between and among the four techniques used in this study to disseminate information about an industrial arts program to the parents.

In the study, parents viewing the coordinated tape-slide series were found to have more favorable perceptions of the industrial arts program than did those viewing the exhibit. Those viewing the slide series were also found to have greater knowledge about the program than did those viewing the exhibit. When comparisons were made between the parents who viewed the slides and those who read the newspaper article, those viewing the slides were found to have more favorable perceptions of the industrial arts program. However, although those viewing the slides showed greater knowledge about the program, the difference between them and those reading the newspaper article was not significant. Two
comparisons between parents viewing the slides and those reading
the newsletter article produced significant differences. Those
viewing the slides were found to have more favorable perceptions
of the industrial arts program, and they also exhibited greater
knowledge about certain aspects of it.

Comparisons between parents who viewed the exhibit and those
who read the newspaper article showed that those who read the article
had more favorable perceptions about the industrial arts program,
and they also demonstrated greater knowledge about it. However, a
significant difference was found only in the test for greater
knowledge. When parents viewing the exhibit were compared for
perception of the industrial arts program with those who read the
newsletter article, a significant difference was found in favor of
those viewing the exhibit. However, the parents who read the news­
letter article were found to have greater knowledge about the
program, but the difference was not significant.

Two other comparisons between parents who read the newspaper
article and those who read the newsletter article produced no
significant differences. Although not significant, the comparisons
showed that the parents who read the newspaper article had a more
favorable perception of and also exhibited greater knowledge about
the industrial arts program.

Of the twelve comparisons made, a significant difference was
found in seven. Of the six comparisons involving the coordinated
tape-slide series, five were significant in favor of the parents
viewing the slides. One of the six comparisons involving the parents
viewing the exhibit was significant in their favor. One significant difference in six comparisons was also found in favor of the parents who read the newspaper article about the industrial arts program. And six comparisons involving the parents who read the newsletter article found only one in favor of these parents; however, the difference was not significant.

Because significant differences were found, the hypothesis that "There are no differences in effectiveness between and among the four techniques used in this study to disseminate information about an industrial arts program to the parents" is rejected in favor of its alternate. The alternate hypothesis is that "There will be a difference in effectiveness between and among the four techniques used in this study to disseminate information about an industrial arts program to the parents."

**Discussion and Conclusions**

The study demonstrated the complexity and unpredictability of human behavior, as represented in this instance by the perceptions expressed and knowledge exhibited by parents who were exposed or not exposed to techniques of disseminating information about a high school's industrial arts program.

The basic question confronted in this study was: Are four techniques—coordinated tape-slide series, exhibit, newspaper article, and newsletter article—used to disseminate information about a school's industrial arts program, effective techniques? The findings established in this study indicate an affirmative
answer to this question. The word "indicate" is chosen deliberately, for the findings of this study are too insufficient to constitute conclusive evidence. Additional research, including the replication of this study, is needed before the effectiveness of the four information dissemination techniques will have been subjected to sufficient investigation to permit conclusive statements. This need is discussed further in the last section of this chapter.

Seven findings emerging from the study provide the basis for offering an affirmative answer to the question posed above. These findings are as follows:

1. Parents viewing a coordinated tape-slide series about a school's industrial arts program were found to have more favorable perceptions of the school information and industrial arts programs. They exhibited greater knowledge about the industrial arts program than did those parents not viewing the slide series.

2. The release of an exhibit for public viewing was found to create more favorable perceptions of the industrial arts program on the part of parents of the school's student body.

3. Parents viewing the exhibit of industrial arts students' work were found to have more favorable perceptions of both the school information program and the industrial arts program than did parents not viewing the exhibit.

4. The release of a newspaper article in the local newspaper about the industrial arts program was found to create more favorable perceptions of the school information program and the industrial arts program on the part of parents of students in the school.

5. Parents reading the newspaper article were found to exhibit more favorable perceptions of and greater knowledge about the industrial arts program than did parents not reading the article.
6. The release of an article in the school newsletter about the industrial arts program was found to create more favorable perceptions of the school information program and the industrial arts program on the part of parents of the school's student body.

7. Parents reading the newsletter article were found to exhibit a more favorable perception of the industrial arts program than did those who did not read the article.

The only information dissemination technique which was found to be effective in all three areas tested—perception of school information program, perception of industrial arts program, and knowledge of industrial arts program—was the coordinated tape-slide series. Studies have supported the idea that the more senses employed in receiving a message, the greater its effectiveness (Klapper, 1954) (Kemp, 1968). The slide series was the only technique of the four which required the use of more than one of the receivers' senses—seeing and hearing.

The next most effective information dissemination technique was found to be the newspaper article. One of the reasons for its effectiveness could be that it was published in a local newspaper, which studies have shown is read more thoroughly than are large city newspapers (Cutlip and Center, 1964). The article also appeared on the front page with an accompanying photograph, which could explain why it was more effective than the exhibit and newsletter article. A discussion in Chapter II of this study also revealed that parents want to read newspaper articles about the curriculum of their children's school (Gordon, 1966). This could also explain the effectiveness of the newspaper article in this study.
When the four information dissemination techniques—coordinated tape-slide series, exhibit, newspaper article, and newsletter article—were tested for parents' perception of the school information program, a more favorable perception of the program was demonstrated by those viewing the slides and those viewing the exhibit. While the exposure of the newspaper article and newsletter article produced a more favorable parental perception of the information program, those parents who read the articles exhibited perceptions almost identical to those of parents who did not read the articles. In fact, parents who did not read the newsletter article exhibited a more favorable perception of the school information program than those who read it, although the response distributions were not significantly different.

The first finding, where exposure of the information proved to be more effective than having people actually read the message, does not coincide with prior studies on message dissemination which show that little is accomplished from "sending" a message if no one "receives" it (Simpson, 1964) (Carter, 1960). One conclusion that can be drawn from this, is that before they read about something which was happening in the school, the parents felt well-informed. However, after they read about a part of the school curriculum—industrial arts—the parents began to feel that they were not receiving all of the information they wanted or felt they should have.

When the parents were tested for their perceptions of the industrial arts program, a more favorable perception of the program
was exhibited after each of the four information dissemination
techniques was used to communicate information about the program
to the public. More favorable perceptions of the program were also
exhibited by those parents who viewed the slides or exhibit, or
who read the newspaper article or newsletter article.

However, this favorable perception does not necessarily
mean that the parents know what the program is about. In fact,
when these same parents were tested for knowledge about the program,
only those who viewed the slides or read the newspaper article
exhibited greater knowledge than those parents not exposed to
information about the industrial arts program. The reader is
referred to earlier discussions in this chapter which dealt with
the effectiveness of the slides and newspaper article, for some
possible reasons why more was learned from them than from the
exhibit or newsletter article. Another reason for this occurrence
is that people usually can recall general but not specific information
about a message (Hovland, Janis and Kelley, 1957). Other supporting
evidence for this occurrence was discussed in detail in Chapter II
of this study.

A comparison of the response distributions of those parents
who were exposed to one of the information dissemination techniques,
with the response distributions of the other three techniques,
produced some interesting results. Parents who viewed the slides
were found to have a more favorable perception of and exhibited
greater knowledge about the industrial arts program, than did
those who viewed the exhibit, or read the newspaper article, or
read the newsletter article. The only exception concerned parents' knowledge of the program, where the use of slides was favored over the newspaper article, but the response distributions were not significantly different. The earlier discussion about the strengths of a newspaper article suggest why this phenomenon could have occurred.

Comparison of the response distributions for the exhibit with the other three information dissemination techniques, found the exhibit to excel only over the newsletter article, where the parents demonstrated a more favorable perception of the industrial arts program. The only explanation the investigator has to offer for this phenomenon is that parents realize a higher value for the program when they view some finished products from it, than when they only read about what takes place. However, while the perception of the industrial arts program was more favorable for the exhibit, the parents reading the newsletter demonstrated greater knowledge about the program. Although the response distributions for the two were not significantly different in this case, why one technique imparts more favorable perception, while the other exhibits greater knowledge, is worth discussing. The information that was used to test for parents' knowledge of the program was printed on signs in the exhibit. Possibly the parents viewing the exhibit were only interested in the items on display, and did not care to read the printed matter. Also, recall would probably be greater for the display—perception of the program—than for the wording on the signs—knowledge of the program. However, the
new sletter consisted, for the most part, of information on which the parents were later tested for knowledge of the program.

In the judgment of the investigator, the following conclusions may be drawn from the findings reported in Chapter IV and discussed above:

1. Empirical evidence supports the assertion that a coordinated tape-slide series, an exhibit, a newspaper article, and a newsletter article are all effective techniques for presenting information about an industrial arts program to parents of a school's student body. However, effectiveness varies for each of the four techniques.

2. A coordinated tape-slide series, as opposed to an exhibit, a newspaper article, or a newsletter article, is by far the most effective technique for presenting information about an industrial arts program to parents of a school's student body.

3. Parental perceptions of the industrial arts program and parental knowledge about the industrial arts program constitute two appropriate dimensions for studying the information dissemination technique "effectiveness" phenomenon.

4. Parental perceptions and parental knowledge represent logical starting points in a study of the information dissemination technique "effectiveness" phenomenon.

5. Parental knowledge is a more productive dimension for studying the information dissemination technique "effectiveness" phenomenon than are parental perceptions.

6. Because human behavior, as represented in this instance by parental perceptions and knowledge, is so complex and unpredictable, it is essential that personnel associated with a political subdivision, such as the public school district, be thoroughly acquainted with the audience(s) with whom they must communicate.

These conclusions and the findings and discussion on which they are based should be of interest to school administrators and school public relations agents, for it is they who usually commun-
icate the school program to the public; to industrial arts teachers and chairmen who provide the content of the information to be communicated; and to college and university professors who provide the content for the "new" industrial arts, and in turn must assist the public school personnel to inform the public about the advantages of these "new" programs.

Implications for Further Research

The study suggested a number of areas for further research. It would be desirable to replicate the study in the Reynoldsburg High School District. If this were to be done, three departures from the original research effort seem advisable. First, consideration should be given to allowing a longer time span for disseminating information through each technique. Perhaps an entire year would be more appropriate than the six-month period employed in the study. Second, consideration also should be given to constituting two other populations: one to represent the "influentials" or "opinion leaders" of the community--prominent businessmen, civic leaders, city officials, etc.--and one to represent the "general public" of the community. By constituting these additional populations, the investigator would be able to compare the perceptions and knowledge of parents of the school's student body and those of the general public, between the perceptions and knowledge of parents of the school's student body and those of "opinion leaders" of the community, and between the perceptions and knowledge of the "general public" and of the "opinion leaders." Such
comparisons could produce new insights into the "effectiveness" of the four information dissemination techniques. And finally, in recognition of research findings that indicate that interviewers receive more valid and reliable information than do mailed questionnaires, consideration should be given to engaging interviewers to obtain data from the respondents.

The study also should be replicated as fully as possible in other school districts in the United States to generate the volume of specific information about the "effectiveness" phenomenon required for the formulation of sound generalizations.

Because parents of children in the industrial arts program seem to be no better informed about the program than those with no children in it, new research efforts should be designed to explore fully this apparent lack of communication between the industrial arts student and his parents.

The other eleven "communication techniques" cited in this chapter—booklet, home visit, leaflet, meeting, motion pictures, open house, pupils, radio, speech, teachers, and television—are vital areas for additional research.

An effort also should be made to determine whether the industrial arts teacher is more effective than the school administrator in publicizing the Industrial arts program. From the literature cited in Chapter II, it is apparent that the school administrator usually does not have sufficient time or background to adequately publicize his entire school program.

As the items on the questionnaires employed in this study
were being tallied, it became apparent that many parents, irrespective of whether they had been exposed to one of the four information dissemination techniques, were not as informed as they would like to be about the educational program in their high school. This problem seems prevalent throughout the country (Gallup, 1966) (Gallup, 1969). Therefore, it seems evident that additional investigations are needed in the field of school-home communications. Out of such studies could come findings that would contribute to the development of new and sound strategies with respect of the content and timing of messages, an understanding of the audience the communication is to reach, and methods of employing two-way communications.
APPENDIX A

LETTER TO ORGANIZATIONS AND GROUPS
REQUESTING PERMISSION TO PRESENT
COORDINATED TAPE-SLIDE SERIES TO THEM
Dear

An informative program concerning the industrial arts curriculum at Reynoldsburg High School has recently been completed. The actual presentation is in the form of a fifteen minute coordinated tape-slide series. The slides show materials and equipment in actual operation by the students under normal classroom conditions. Not only are the finished products shown, but each phase of the construction process is also included in the series. Each of these items combined with the professional narration of WOSU station manager Bill Steis, will prove to be of value to anyone interested in children and their school activities.

We at Reynoldsburg High School would like very much to have the opportunity to present this program to your group. In replying, would you please contact Mr. Ronald Hoenes by mail at Reynoldsburg High School, or phone 866-8675 Monday or Wednesday 7:00 PM to 10:00 PM, and all day on week-ends.

Thank you for your time and consideration and I look forward to hearing from you.

Sincerely,

Ronald L. Hoenes
APPENDIX B

FORM COMPLETED BY EVERYONE VIEWING THE SLIDE SERIES
Your help is needed in determining the educational value of the presentation you will view shortly. Would you please provide the following information. Thank you.

Name____________________________________ Phone______________________
Street________________________ City___________ Zip___________
Do you have a son or daughter currently attending Reynoldsburg H. S.?
YES_______ NO_______
If the above answer is yes, please list their name(s) below:
Son(s)__________________________________________
Daughter(s)_____________________________________
Organization viewing the presentation____________________
APPENDIX C

COVER LETTER

PRETEST INSTRUMENT

POSTTEST INSTRUMENT
Dear

Do you feel that you are well informed concerning the curriculum of the school which your child attends? Would you like to be better informed about the learning processes in this school? This is what you are being asked to tell by filling out the enclosed survey form. Although this study deals mainly with one of the learning processes, industrial arts, your answers will help to determine how you can be kept informed concerning the entire curriculum of your school.

The survey form is easy to fill out, and should only take 10 minutes of your time. You can answer it almost as fast as you can read it. In most cases, you merely check the answer that best describes your point of view.

PLEASE DO NOT PUT YOUR NAME ON THIS PAPER. The interest is not in knowing which people said what, but rather it is in parents' suggestions and feelings about how well informed they are concerning one part of the curriculum of their child's school.

Please follow these directions:

Use either a pencil or pen to mark your answers.

Please answer every question.

Please fill out the survey form now, if possible, and mail it in the enclosed stamped self-addressed envelope.

The information you provide by returning this completed survey form is very important if you are to be kept informed concerning the learning processes of your child's school.

This study is being conducted and paid for through The Ohio State University by Mr. Ronald L. Hoenes with the approval and cooperation of the Superintendent of Schools, Mr. Robert Heischman and the principal of Reynoldsburg High School, Mr. Joseph Endry.

Thank you for your time, for your help, and for your interest in the education of your child.

Sincerely,

Ronald L. Hoenes
Researcher
1. Do you feel that you are well informed about the subjects which are taught in Reynoldsburg High School?
   Not informed at all
   Not very well informed
   Not certain
   Fairly well informed
   Well informed

2. Do you feel that Reynoldsburg High School does a good job of telling you about what is taught in the school?
   Very poor job
   Poor job
   Fair job
   Good job
   Very good job

3. Have you ever visited Reynoldsburg High School's industrial arts laboratories?
   Yes
   No

4. Have you ever taken an industrial arts course during your time in school?
   Yes
   No

5. Would you say that the industrial arts program at Reynoldsburg High School offers useful information to its students?
   Not useful at all
   Not very useful
   Not certain
   Fairly useful
   Very useful

6. Would you say that teaching safety is an important part of the industrial arts program at Reynoldsburg High School?
   Not important at all
   Not very important
   Not certain
   Fairly important
   Very important

7. To your knowledge, do students learn much in Reynoldsburg High School's industrial arts classes that will be useful to them in everyday living?
   Not useful at all
   Not very useful
   Not certain
   Fairly useful
   Very useful
8. Would you say that industrial arts has information of value to students who will go to college after high school graduation?
   _______ Not valuable at all
   _______ Not very valuable
   _______ Not certain
   _______ Fairly valuable
   _______ Very valuable

9. Would you check each of the subjects listed below which you feel SURE are taught in Reynoldsburg High School's industrial arts program.
   _____ Boat Building  _____ Electricity  _____ Art
   _____ Woodworking    _____ Ceramics    _____ Metalworking
   _____ Industrial Crafts  _____ Drafting  _____ Handicrafts
   _____ Farming        _____ Construction  _____ Graphic Arts

10. Do you feel that Reynoldsburg High School does a good job of telling you about the industrial arts program?
    _______ Very poor job
    _______ Poor job
    _______ Fair job
    _______ Good job
    _______ Very good job

11. What would you say is the most important purpose of teaching industrial arts to the students at Reynoldsburg High School?
    _______ Training for working at a certain job after high school graduation
    _______ Helping to become familiar with some of the many jobs and products of industry
    _______ Preparing for entering college
    _______ Learning how to make items for use around the home
    _______ Not certain

12. To your knowledge, do girls take industrial arts courses at Reynoldsburg High School?
    _______ Yes
    _______ No
    _______ Not certain

13. Do you know as much as you would like to know about Reynoldsburg High School's industrial arts program?
    _______ Yes
    _______ No
    _______ Not certain

14. If you have any suggestions to offer concerning things you would like to have done to keep you informed about the industrial arts program at Reynoldsburg High School, please write them here.

__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________
__________________________________________________________
POSTTEST INSTRUMENT

1. During the past six months have you seen any of the following items about Reynoldsburg High School's industrial arts program?
   - Coordinated tape-slide series about the program
   - Industrial arts exhibit in the Reynoldsburg Shopping Center
   - Article about the program in the local newspaper
   - Article about the program in the Reynoldsburg School Report

2. Do you feel that you are well informed about the subjects which are taught in Reynoldsburg High School?
   - Not informed at all
   - Not very well informed
   - Not certain
   - Fairly well informed
   - Well informed

3. Do you feel that Reynoldsburg High School does a good job of telling you about what is taught in the school?
   - Very poor job
   - Poor job
   - Fair job
   - Good job
   - Very good job

4. Have you ever visited Reynoldsburg High School's industrial arts laboratories?
   - Yes
   - No

5. Have you ever taken an industrial arts course during your time in school?
   - Yes
   - No

6. Would you say that the industrial arts program at Reynoldsburg High School offers useful information to its students?
   - Not useful at all
   - Not very useful
   - Not certain
   - Fairly useful
   - Very useful

7. Would you say that teaching safety is an important part of the industrial arts program at Reynoldsburg High School?
   - Not Important at all
   - Not very important
   - Not certain
   - Fairly important
   - Very Important

8. To your knowledge, do students learn much in Reynoldsburg High School's industrial arts classes that will be useful to them in everyday living?
   - Not useful at all
   - Not very useful
   - Not certain
   - Fairly useful
   - Very useful
9. Would you say that industrial arts has information of value to students who will go to college after high school graduation?
   ___ Not valuable at all
   ___ Not very valuable
   ___ Not certain
   ___ Fairly valuable
   ___ Very valuable

10. Would you check each of the subjects listed below which you feel SURE are taught in Reynoldsburg High School's industrial arts program.
   ___ Boat Building  ___ Electricity  ___ Art
   ___ Woodworking  ___ Ceramics  ___ Metalworking
   ___ Industrial Crafts  ___ Drafting  ___ Handicrafts
   ___ Farming  ___ Construction  ___ Graphic Arts

11. Do you feel that Reynoldsburg High School does a good job of telling you about the industrial arts program?
   ___ Very poor job
   ___ Poor job
   ___ Fair job
   ___ Good job
   ___ Very good job

12. What would you say is the most important purpose of teaching industrial arts to the students at Reynoldsburg High School?
   ___ Training for working at a certain job after high school graduation
   ___ Helping to become familiar with some of the many jobs and products of industry
   ___ Preparing for entering college
   ___ Learning how to make items for use around the home
   ___ Not certain

13. To your knowledge, do girls take industrial arts courses at Reynoldsburg High School?
   ___ Yes
   ___ No
   ___ Not certain

14. Do you know as much as you would like to know about Reynoldsburg High School's industrial arts program?
   ___ Yes
   ___ No
   ___ Not certain

15. If you have any suggestions to offer concerning things you would like to have done to keep you informed about the industrial arts program at Reynoldsburg High School, please write them here.

________________________________________
________________________________________
APPENDIX D

POSTCARD FOLLOW-UP

TELEPHONE FOLLOW-UP
Dear Parent:

Recently you received an important form entitled School Community Relations Study which you were asked to fill out and return to me.

For the results of the study to be beneficial to both Reynoldsburg High School and you, a parent, it is necessary for all forms to be returned. In order that nobody could possible "know who said what" you were asked not to sign your name on the form before returning it. Consequently, I have no way of knowing who has and who has not returned the completed form. If you have already returned yours, please forgive this card. If you have not, why not do so now so that we may benefit from your reply.

Sincerely,

Ronald L. Hoenes
Director, School Community Study
May I speak with _____________ please.

I am calling about the Reynoldsburg High School Community Relations Study Form which was mailed to you approximately two weeks ago. Since no names are attached to the forms which have been returned, it is necessary to call everyone to encourage the return of the form if you have not already done so. May I ask if you have returned yours?

YES - Thank you, we appreciate your cooperation and interest in your child and school.

NO - Could I encourage you to do so as we must hear from everyone in order to receive the full benefits from the survey.
INDUSTRIAL ARTS OFFERS ACTIVITIES, CHALLENGES

Learning activity is plentiful in the Reynoldsburg High School industrial arts program this year. Examples of this are the nut bowls being turned on the wood lathes in the woodworking program and the center punches produced by students in the metalworking area. The drafting, graphic arts, electricity, and power mechanics programs are also offering valuable learning experiences for the industrial arts students.

Instructor John Thompson feels that the various programs offer information of value to students who will go to college as well as those who will enter the world of work upon graduation from Reynoldsburg high school. Mr. Thompson states that, "many of our students have found it easier to accomplish some of their college requirements by taking a drafting course offered in our industrial arts program."

The purpose of industrial arts is to provide the students with an overall view of the many aspects of industry. Information that helps them to make wise decisions affecting their vocational choices and goals whether it requires college training or on-the-job training after high school graduation. Although it is not meant to provide training for a specific vocation, some students acquire enough information to enter a trade upon graduation from high school.

Some people seem to be undecided concerning the place of girls in the program. Instructor Charles Parsons expresses the view that there is definitely a place for girls in the program. He states that, "there really is no reason why girls should not know how to use basic tools in working around the home, as well as have a general understanding of how an automobile operates." He went on to add, "the industrial arts program offers girls as well as boys an opportunity to learn a great deal about the world around them."

The Reynoldsburg School Report which is received by everyone in Reynoldsburg during the school year is printed in the graphic arts area. Instructor Leo Steible is in charge of the printing which serves as a meaningful production experience for some of his students. Other features of the graphic arts program offer students an opportunity to setup and operate the press to produce letter heads and note pads for their personal use.

Safety is a feature that is constantly stressed in all of the areas of instruction. Mr. Thompson expresses the view that, "with the varied equipment we have for the students to work with, it is essential that the instructors make safety an on-going feature of every program."
A new program has been added this year to the industrial arts curriculum at Reynoldsburg High School. Besides the existing courses in drafting, woodworking, metalworking, graphic arts and electricity, the students are also learning about the operation of small engines. The instructor Mr. Charles Parsons feels that, "this course in small engines is a beginning for some students who would like to work with larger engines in the future." As is the case with each of the other programs, safety is a feature that is constantly stressed. Metals instructor Mr. John Thompson expresses the view that, "with the varied equipment and materials we have for the students to work with, it is essential that the instructors make safety an ongoing feature of every program."

Regarding girls in the program Mr. Parsons does not agree with those who feel that they should stick to sewing and cooking. He states that, "there really is no reason why girls as well as boys should not have a basic understanding of how an engine operates to move a lawn mower or automobile." He adds that, "the purpose of the program is not to make mechanics of the students, rather it is to provide them with an overall view of the many aspects of industry. This would consist of a study of the production of engines as well as how they operate and are serviced."

(Photograph of Mr. Steible and two students working on press)

This report, as well as the other issues of the Reynoldsburg School Report, is printed in the Graphic Arts area of the industrial arts program under the supervision of Mr. Leo Steible Jr.
APPENDIX G

PROCEDURE FOR REVIEW OF LITERATURE
PROCEDURE FOR REVIEW OF LITERATURE

The procedure for literature review followed by the investigator is a procedure suggested by a qualified research librarian. The investigator searched the following sources in the order shown, beginning with number one, two, etc.

1. Burke, Arvid J. and Burke, Mary A. Documentation in Education. New York: Teachers College, Columbia University, 1967. This reference is checked first because it provides information on how to locate educational information and data, as well as an aid to quick utilization of the literature of education.

2. Winchell, Constance M. Guide to Reference Books. (8th ed.). Chicago: American Library Association, 1967. This reference lists reference books basic to research general and special and serves as: 1) a reference manual for the researcher, or other user of library sources, and 2) a textbook for the student who is pursuing a systematic study of reference books.

3. United States Library of Congress. Subject Headings (7th ed.). Washington: Library of Congress, 1966. This reference is checked to locate subject headings which might relate to the selected subject to be investigated.


5. Psychological Abstracts. Boston, Mass.: G. K. Hall & Co., 1969. This reference gives research studies that have been conducted.

6. Research Studies in Education. Phi Delta Kappa, Inc. Bloomington, Indiana: F. E. Peacock Publishers, Inc. This reference gives research studies conducted in education and is the only good subject reference to Dissertation Abstracts.
7. **Research in Education.** Washington: United States Government Printing Office. This reference is one of the newest reference works available.


9. **Education Index.** New York: The H. W. Wilson Company, 1969. This reference contains a cumulative subject index to a selected list of educational periodicals, proceedings, and yearbooks. This reference was checked for the last ten years for the factors of concern in this study.

10. **Current Index to Journals in Education.** New York: CCM Information Corporation, 1970. - monthly
This reference provides detailed indexing for articles in over 500 education and education-related journals. Serves as a monthly companion piece to Research in Education.

11. **Readers' Guide to Periodical Literature.** Minneapolis, Minnesota: H. W. Wilson. This reference provides author and subject index to a selected list of periodicals.

12. **Master's Theses in Education.** Cedar Falls, Iowa: Iowa State Teachers College, Bureau of Research, 1969. This is an annual reference which provides a general list of master's theses in education from many institutions.

13. Shaw, Donald L. (ed.). **Journalism Abstracts.** Chapel Hill, North Carolina: Association for Education in Journalism, 1969. This is an annual reference begun in 1963 which provides a compilation of abstracts of master's theses and doctoral dissertations written in schools and departments of journalism in the United States.

15. Cutlip, Scott M. *A Public Relations Bibliography*. Madison, Wisconsin: The University of Wisconsin Press, 1965. This reference is an annotated bibliography of publications—books, periodicals, research, etc.—dealing with public relations in the areas of business, education, and industry. It also provides an annotated list of other bibliographies on public relations and related fields.


**Literature Search**

For school-community relations the search went back to 1950 on research and other publications including the American Association of School Administrators' publication, *Public Relations For America's Schools*. For public relations the search went back to 1963 on research published in the first volume of *Journalism Abstracts* and back to 1960 on research and other literature annotated by Scott M. Cutlip in his publication, *A Public Relations Bibliography*. For communications the search went back to 1947 on research by Carl I. Hovland in the Yale Studies in Attitude and Communication. For techniques of publicizing industrial arts the search went back to 1960 and the April 1960 issue of *School Shop*, which published a special on some of these techniques. For research techniques the search went back to 1944 on George Gallup's publication, *A Guide to Public Opinion Polls*.

The literature search was delimited to research performed or currently underway, publications by accepted authorities in each
area, and publications by organizations influential in the areas involved in the study. To explain how the authorities were decided upon the following background information is provided.

By selecting the topic to be investigated one and one-half years in advance of beginning the study, the investigator was afforded the opportunity of studying under people knowledgeable in the areas of school-community relations, communication, public relations, research, and industrial arts. These people in turn provided the investigator with names of individuals who could be accepted as authorities in their respective fields, and the investigator in turn referred to literature produced by these authorities to seek their opinions on information pertinent to this study. Much of the literature reviewed in this manner was also discovered during the literature search previously outlined.

The individuals the investigator studies under and considered knowledgeable in their areas are:

**Industrial Arts**
1. Donald G. Lux
2. Willis E. Ray

**School-Community Relations**
1. Joseph L. Davis

**Communication**
1. Sidney Eboch
2. Robert Wagner
3. I. Kieth Tyler
The only exception made during the literature search was that for techniques of presenting industrial arts to those outside the school. Due to a lack of empirical evidence relating to these techniques for school use the investigator expanded the search to encompass all techniques of presenting industrial arts to the public regardless of the authoritative acceptance of the author. This was decided upon in order to obtain a concise understanding of what has been undertaken during the past ten years.
PROPOSED BUDGET

A. Direct Costs

1. Personnel

   a. Principle investigator

      1. Time on project - 25%

      2. Per annum salary - $6,000


      4. 68 days @ $25.00 per day

          a). Developing proposal . . . . . .15 days

          b). Preparation of techniques

              1). Coordinated tape-slide series. .10 days

              2). Exhibit . . . . . . . . . .4 days

              3). Newspaper article. . . . . 1 day

              4). Newsletter article . . . . 1 day

          c). Preparation of instrument (survey) . 5 days

              1). Testing of instrument . . . . 3 days

          d). Pretesting . . . . . . . . . .3 days

          e). Posttesting

              1). Coordinated tape-slide series. .5 days

              2). Exhibit . . . . . . . . . . 2 days

              3). Newspaper article. . . . . 2 days

              4). Newsletter article . . . . 2 days

          f). Tabulation of data . . . . . .5 days

          g). Compiling report . . . . . .10 days

$1700.00
b. Secretary-typist

1. Time on project - part time
2. Per annum salary - $2.00 per hour
4. 40 days @ 16.00 per day .................................................. $ 640.00
   a). Typing
      1). Proposal ........................................... 1 day
      2). Coordinated tape-slide series .......... 1 day
      3). Exhibit directions and lettering .... 1 day
      4). Newspaper article ............................ 1 day
      5). Newsletter article ............................. 1 day
      6). Instrument for survey .......................... 1 day
      7). Pretesting - sample and envelopes ........ 4 days
      8). Posttesting ........................................ 8 days
      9). Correspondance ................................... 3 days
     10). Final report ......................................... 10 days
   b). Office work
      1). Phone calls - survey follow-up .......... 4 days
      2). Miscellaneous ..................................... 10 days

II. Travel
   a. 200 miles @ .10 ...................................................... 20.00

III. Supplies and Materials
   a. Project materials
      1. Postage ................................................. $90.00
      2. 5 cent postcards ......................................... 25.00
### III. Equipment and Materials

1. Envelopes - 1400 @ $.01 .................. $14.00
2. Paper - 8 reams @ $1.00 ................. 8.00
3. Film for slides - 6 rolls @ $3.50 .... 21.00
4. Tapes for tape-slide series 3 @ $3. .... 9.00

Total: $167.00

### b. Office supplies

1. Postage ........................................ 12.00
2. Paper and envelopes .......................... 10.00
3. Miscellaneous ................................... 20.00

Total: 42.00

### IV. Communications

a. Telephone calls .................................. 20.00

### V. Services

a. Duplicating and reproduction

1. Proposal ........................................ 20.00
2. Pretest instrument ............................. 20.00
3. Correlated tape-slide series ............... 10.00
4. Exhibit directions and lettering .......... 10.00
5. Newsletter publication ....................... 20.00
6. Posttest instrument ........................... 30.00

Total: 111.00

### VI. Final report costs

a. 20 copies @ $10.00 per copy .............. 200.00
VII. Equipment
   a. Camera and necessary accessories - rental $20.00
   b. Slide projector - rental .................................. 20.00
   c. Screen - rental ............................................................10.00
   d. Tape recorder - rental. ..............................................20.00
   e. Typewriter - rental. .....................................................50.00

$ 120.00

VIII. Sub-total, Direct costs ..................................................... $2880.00

B. Indirect Costs
   1. Based on 39% of wages as established by The Ohio State
      University policy ................................................. 912.60

C. Total Costs ............................................................... $3792.60
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