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AN ASSESSMENT OF WHITTLE COMMUNICATION'S ATTAINMENT OF CHANNEL ONE'S FIVE EDUCATIONAL GOALS AS PERCEIVED BY STUDENTS AND TEACHERS

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Michael Jazzar

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AN ASSESSMENT OF WHITTLE COMMUNICATIONS' ATTAINMENT

OF CHANNEL ONE'S FIVE EDUCATIONAL GOALS,

AS PERCEIVED BY STUDENTS AND TEACHERS

By

Michael Jazzar

A DISSERTATION

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ABSTRACT

AN ASSESSMENT OF WHITTLE COMMUNICATIONS' ATTAINMENT
OF CHANNEL ONE'S FIVE EDUCATIONAL GOALS,
AS PERCEIVED BY STUDENTS AND TEACHERS

By

Michael Jazzar

The purpose of this study was to attain an assessment of Whittle Communications' attainment of Channel One's five educational goals, as perceived by students and teachers. Literature was reviewed, citing the past and present effect of technology on education. Explication of the five educational goals of Channel One's news-and-information programs was undertaken. Finally, the review of literature demonstrated the historical importance of school surveys in education.

The survey questionnaire written by the researcher was evaluated by a team of experts and field tested before administration. Michigan Department of Education administrators were consulted to aid in the random selection of the schools receiving Channel One, ensuring a diversity of community characteristics including income, racial composition, population, and distance from urban centers.

SPSS statistical analysis of the data revealed a high correlation between students and teachers. Respondents were very positive in their perceptions of Channel One's attainment of its five educational goals.

Recommendations were made for further research. The design of the study may provide the needed structure for future studies of technology and its effect on education.

I dedicate this work to my family, whose faith in me and support of my work frequently kept me going in times of doubt and stress. To Mary, Aaron, and Danielle, whose understanding of this process ensured the successful completion of this study. To my parents, who instilled in me the importance of education.

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I wish to express my deeply felt appreciation to the members of my guidance committee, Dr. Lois A. Bader, Dr. Edward A. Duane, and Dr. John H. Suehr. Their support and inspiration added meaning to this study.

In addition, I am very thankful for the statistical support from Dr. Stan Kaplowitz and Alice Kalush. Their knowledge and patience were of significant assistance.

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER I

THE PROBLEM

Introduction

More than two decades ago, Silberman (1970) cautioned educators that "to consider the ramifications of educational technology is to discover cause for concern, for they pose a number of real, and potentially serious dangers to American education" (p. 82). Mesthene (1988) commented, "What's good for educational technologists is not necessarily good for education" (p. 16). Increasing use of computers by business and industry 20 years ago prompted serious concerns for the effect this might have on school reform.

Today, the advancement of computer technology continues to affect education "as students are able to create, receive, collect, share data, view text images and listen to sounds on myriad topics in ways more stimulating, richer, and timely than ever before" (Blinder, 1990, pp. 26-27). However, the technology behind the computer did not rest with this single invention. Furthermore, this ever-increasing technology continues to affect education because "calculators,

camcorders, audio books, databases, video machines, Discovery Channel, computing devices, broadcast television, and data distribution via cable, satellite and phone lines are now available for usage in classrooms" (Crum, 1989, p. 6).

Although "we need to view education in the context of the technologies of the twentieth and twenty-first century America" (Mecklenburger, 1990a, p. 42), the concerns remain the same as they were 20 years ago. Advancement of technology into the classroom is not synonymous with improvement in education. "An effective technology of instruction relies heavily upon the effective measure of student gains" (Glaser, 1966, p. 59). These gains need to be tested, measured, and appraised as to the value of the technology.

Channel One, a forerunner of today's technology in education, is a 12-minute daily news-and-information program. Using state-of-the-art technology, Channel One transmits via satellite to more than 9,000 schools in the United States simultaneously. Furthermore, Channel One strives to make news relevant to the concerns and studies of its captive audience, teenagers. Channel One was imagined, financed, and launched by Whittle Corporation fewer than two years ago. All of its broadcasts are designed to attain the channel's five educational goals.

Purpose of the Study

The researcher's purpose in this study was to provide an assessment of Whittle Communications' attainment of Channel One's five educational goals, as perceived by students and teachers. To identify these perceptions, an assessment survey was administered. The basis for construction of this survey was Channel One's five educational goals, which are as follows:

1. To enhance cultural literacy by offering students news-and-information programming.

2. To promote critical thinking through careful reporting and in-depth analysis, exploring moral, social, and political issues.

3. To provide common language and shared experiences by presenting issues of common concern to young people of widely varying backgrounds.

4. To provide relevance and motivation by showing the direct connection between global news events and the everyday lives of its viewers.

5. To strengthen character and build a sense of responsibility by presenting role models that students can relate to and respect, that reinforce positive values.

Need for the Study

The first television monitors were installed by Whittle Educational Network in January 1990, and the first

Channel One program was sent to its pilot schools via satellite in March 1990. In fewer than two years, the number of schools receiving Channel One has grown to more than 9,000. However, despite this tremendous growth and development of the Whittle Educational Network, research of Whittle Communications' attainment of Channel One's five educational goals, as perceived by the intended audience, students and teachers, is absent. Therefore, the researcher's purpose in this study was to procure an assessment of Channel One's value to its viewers.

Not only is such a study necessary, it is long overdue. Glaser's (1966) words on technology support the need for this study:

> The tendency to leap on the innovation bandwagon heightens the dangers inherent in the technological approach to education. There is an ever-increasing need for educators to test and measure what's to be gained from technology before implementation, and then continual monitoring is essential. (p. 51)

Furthermore, technologies have led to new kinds of educational enterprises that, like schools, can have enormous power and influence. Although Channel One may be the forerunner of the fast-growing, integrated instructional-system industry, it is not alone. Other corporations, such as Jostens Learning Corporation, Computer Curriculum Corporation, Wasatch, and New Century, continue to grow into educational markets. A number of other educational services are currently available or will

soon be offered. Even Nintendo Corporation is attempting to link the countless Nintendo games found in American homes. In all cases, it is imperative that educators research the influence and value of each technological tool on education. Studies of this nature are essential for educational improvements.

Importance of the Study

Recent research has supported the need for educators to evaluate the effect of technology on education. Inasmuch as every student-sized and classroom-sized application of information technology exists somewhere in the United States, it is not only naive but also alarming that studies of the effect of this technology on education are insufficient. Likewise, Channel One, the forerunner of news-and-information telecommunication into classrooms, lacks proper appraisal.

Therefore, this study was designed to obtain an assessment of Whittle Communications' attainment of Channel One's five educational goals as perceived by its viewing audiences. This study is not only significant but also timely as Whittle's broadcasting network in Michigan alone has grown to more than 400,000 students in 634 middle and high schools since its first broadcasts in March 1990. Communications with Sarah Rose (1992), Vice-President of Research of the Whittle Educational Network,

indicate an absence of research on the educational effect of Channel One, as measured by the perceptions of students and teachers.

Furthermore, it is hoped that this research will be useful in the following ways:

1. Those individuals seeking Whittle Communications' attainment of Channel One's five educational goals, as perceived by students and teachers, might use the results of this study.

2. Researchers undertaking studies of technology and its effect on education might use the design of this study to gain insight.

3. Whittle Education Network might use the results of this study to improve Channel One's programs.

4. Individuals in higher education and business might use the results to develop curricula and technology for the classroom.

5. The survey instrument developed by the researcher might provide a reference for the design of future survey instruments.

6. New questions and new research topics involving evaluation of Channel One or other technology used in the classroom might unfold as a result of this survey.

As IBM Educational System, TI-IN Network, Texas Learning Technology, Educational Satellite Network, CNN Newsroom, and many other rapidly growing technology

enterprises come knocking at the doors of educational institutions, it remains the responsibility of every educator to test, measure, and appraise each technological advancement before allowing its entry.

Research Questions

The research questions posed in this study were based on Whittle Communications' five educational goals for Channel One. Hence, responses were sought to the following questions:

1. Does viewing Channel One enhance students' cultural literacy?

2. Does viewing Channel One promote students' critical-thinking skills?

3. Does viewing Channel One provide a common language and shared experiences for students?

4. Does viewing Channel One provide students with relevance and motivation?

5. Does viewing Channel One strengthen students' character and build a sense of responsibility in students?

Research Methodology

This study was designed as descriptive research. Borg and Gall (1990) defined the purpose of descriptive research as being to "characterize a sample" (p. 21).

The researcher's purpose in this study was to provide an assessment of Whittle Communications' attainment of Channel One's five educational goals, as perceived by students and teachers. Hence, teachers' and students' perceptions were gathered to determine whether Channel One is achieving what its producer, Whittle Communications, claims and promotes. This study is unique; no similar research exists to this day, assessing Whittle Communications' attainment of its five specific educational goals. Other studies (explicated in Chapter II) have focused on the effects (including commercials) of Channel One and have compared control groups with sample groups.

The researcher intended to be comprehensive in addressing each of the five educational goals established by Whittle Communications. These five goals served as the basis for constructing the survey questions.

In reviewing the literature, the researcher found very few studies concerning technology and its effect on education, in general, and Channel One's effect on the classroom, in particular. Therefore, the review of the literature not only underscores the need for the study but also demonstrates the importance of quality research, adhering to the rigors of scientific methodologies.

The first step in conducting the study was to review the literature. This review is presented in Chapter II.

As the literature was reviewed, the researcher noted related studies. Next, survey questions were developed; these questions were derived from the five educational goals specified by Whittle Communications Network. Survey items were evaluated by a team of experts (two building principals, a curriculum director, two high school teachers, and a college professor). The questions were then revised, based on suggestions made by the experts. Cronbach's alpha and standardized alpha were used to test the reliability of the items. The survey instrument was then pilot tested.

The final survey instrument was administered to students and teachers in randomly selected schools. Participants were asked to respond either positively or negatively, using a Likert-type scale. Chapter III contains a detailed discussion of the procedures followed in conducting the research.

Selection of the Sample

This study was conducted in accordance with the guidelines of random sample selection and sample size, as specified by Fraenkel in How to Design and Evaluate Research in Education (cited in Borg & Gall, 1990). First, the researcher ascertained the minimum number of participants needed for the study. For descriptive

studies, a sample of at least 100 participants completing the survey is essential (Borg & Gall, 1990).

The random sampling method used in this research was cluster random sampling. All public and private schools in Michigan having Channel One were placed on a list. Each school was assigned a number, and all numbers were placed in a container. Four numbers (each number representing a different school) were selected randomly from the container. Each school that was selected had at least one class (approximately 30 students) participate in the survey. If the selected school did not wish to participate in this manner, another school was randomly selected. This procedure continued until the conditions of the research were met. Therefore, the minimum number of student participants completing the survey was 120. All teachers at all four schools were given the opportunity to participate, to procure a minimum of 100 teacher participants. Michigan Department of Education administrators were consulted to aid in the random selection, ensuring a diversity of community characteristics, including income, racial composition, population, and distance from urban centers.

Assumptions and Delimitations of the Study

The validity of this study is affected by the following factors:

1. The writer assumed that the survey instrument was reliable and valid.

2. The writer assumed that the responses given on the questionnaire were valid perceptions of the students' and teachers' own understanding.

3. The survey sample was considered to be representative of all subgroups.

4. The data-gathering techniques were consistent with research standards.

5. The study was delimited to information obtained from a review of the literature and responses to the survey instrument.

Definition of Terms

The following terms are defined to reflect their specific use in this study.

Channel One: A 12-minute news-and-information program shown daily via satellite in secondary school classrooms; the program is produced by Whittle Educational Network.

Channel One's five educational goals: The five educational goals of each Channel One program developed by Whittle Educational Network.

Commercially sponsored. The provision of television sets, video-cassette recorders, and a satellite dish at "no cost" to schools that agree to show daily the

12-minute news program, with "two minutes of commercials" included in each program.

Curriculum: All educational experiences provided under the auspices of the school. This includes the scope and sequence of experiences, as well as methods of teaching and all instructional apparatus.

Electronic learning: Instruction gained from an electronic educational apparatus but not limited to calculators, camcorders, audiobooks, databases, video players, and music synthesizers.

On-line telecommunication: The linking of a network of learners over distance with informational sources or other learners.

Secondary education: Beginning with sixth grade and continuing through the twelfth grade.

Technological instruction: Distribution of data via technological apparatus such as cable, satellite, telephone lines, modem, and micro-optic fibers.

Whittle Educational Network: The producers of Channel One, owned and operated by Whittle Communications of Knoxville, Tennessee, an educational publisher for 20 years.

Summary and Overview

This study was an attempt to procure an assessment of Whittle Communications' attainment of Channel One's five

educational goals, as perceived by students and teachers. Although the breadth of this study was limited to Channel One, the findings may help other educators evaluate the effect of technology in the classroom.

Chapter I consisted of an introduction to the study, the purpose and need for the research, the research questions, a brief description of the methodology, assumptions and delimitations, and definitions of important terms.

A thorough review of the related literature is provided in Chapter II. All available sources of both past and current literature were surveyed to determine their appropriateness and relevance to this study.

Chapter III contains a description of the study design, the methodology used in composing the survey instrument, the procedures for sample selection, and the collection and treatment of data.

Chapter V includes a summary of the study and of the results, discussion of the implications, conclusions drawn from the findings, and recommendations for further research.

CHAPTER II

REVIEW OF THE LITERATURE

<u>Introduction</u>

A discussion of the literature was undertaken to focus on Whittle Communications' five educational goals for Channel One and the effect Channel One as a technology has had on education. Literature was reviewed and summarized in this chapter for the following reasons:

1. To show that Channel One evolved from the history of technology in education.

2. To demonstrate that Channel One is at the fore-front of technologies entering educational systems today.

3. To explicate Channel One's program and five educational goals.

4. To describe the limited number of studies that have been conducted on Channel One.

5. To summarize the validity of the survey method as to its usage, importance, and historical meaning.

This chapter is divided into the following seven sections: the history of technology in education, uses of technology in education, program and goals of Channel One,

review of related studies, history of school surveys, use of school surveys, and importance of school surveys.

The History of Technology in Education

In this section, a historical overview of the effect of technology on education is presented. Although events are reviewed from as far back as the 1930s, the discussion concentrates on the effect of technology on education, beginning with the views of education during the 1950s and the 1960s. This period is known as the "age of the computer."

Behaviorists in education trace their lineage back to Tyler (1949), who suggested that educational objectives should be

> . . . defined in terms which clarify the kind of behavior which [a] course should help to develop among the students. . . . This helps to make clear how one can tell when the objective will be characterized by the behavior specified. (p. 19)

Tyler specified that behavioral objectives need to be used to guide the work of designing and developing the whole process of teaching and learning. He believed that these objectives should provide a common set of purposes toward which everyone should strive. Such objectives should be used to help students learn to think rationally. Tyler recommended that such objectives should suggest both the kind of behavior students are to develop and the domains of knowledge and human experience that are likely

to be most relevant and vital to their learning. Furthermore, Tyler proposed that principals and teachers should have available to them a dozen or so educational goals to guide program development and teaching in schools.

Further extending this educational orientation of the learning process was B. F. Skinner. Skinner was a leading supporter of programmed instruction in which the principles of learning determined in the laboratory were applied to classroom teaching. An American psychologist best known for his research into the learning process, Skinner suggested in 1983 that "concepts and methods which have emerged from analysis of behavior . . . are the most appropriate to the study of what has traditionally been called the human mind" (Skinner, 1957, p. 29).

The behaviorist movement achieved widespread popularity during the 1960s. Subjectivity and human judgment were not as important as increased objectivity. Where weaknesses were observed, the automatic reaction was to develop more scientific methods to strengthen the process. Those such as Flanagan, Gilbert, Tyler, and Holsti strove to develop more objective techniques for procuring the accountability of the objectives (Silberman, 1970). Merger attempted to remove ambiguity from objectives by developing more precise terminology (Silberman, 1970). Furthermore, Gagne stated that once

objectives have been defined, there is no step in curriculum development that can legitimately be entitled selecting content (Silberman, 1970). This is not to say that all educators ascribed to behaviorism. Many continued to practice child-centered and humanistic approaches in education.

From the beginnings of the behaviorist movement, the absence of technology in the classroom was prevalent. The pedagogy of education based on laboratory research, demanding uniformity of concepts and values, found little benefit from a filmstrip or movie replacing or supporting lectures from teachers. The behaviorists perceived education and technology to have very little in common. "The common absence of technological devices (films, filmstrips, and educational television) in education yesterday and today seems to convey the implicit erroneous message that these have nothing to do with the educational process" (Goodlad, 1984, p. 84).

"During the 1960s, in particular, educational reform challenged the behaviorist movement in general, [and] the usage of highly scientific techniques for teaching and learning in specific" (Ross, 1973, p. 22). Judgment, logic, and reasoning gained increased value through the 1940s and 1950s in creating goals for education. John Dewey (1859-1952) gained appreciation during the 1960s,

especially for his assertion that the purpose of education
is "not merely to make citizens, or workers, or fathers or
mothers, but to ultimately make human beings who will live
life to the fullest" (cited in Ross, 1973, p. 22).

The educational reformation of the 1960s continued
throughout the following decade. Beliefs surfaced that
human factors were equally important in determining what
might best be taught. Renzulli and Smith, Fischer and
Fischer, and Joyce and Weil indicated that students have a
wide variety of learning styles and that teachers
similarly have a wide variety of teaching styles (Goodlad,
1984). It is out of this time of educational reform that
the free schools, also called alternative schools, were
started by a number of individuals and groups. Most free
schools allowed students to decide what and how they would
study.

With the emergence of a more humanistic view of
education, with its early beginnings in the 1960s and
continuing with increasing support in the 1970s, the
primary focus became the needs of students. Varying
learning styles, recognizing the uniqueness of each
learner, and greater participation of the learner in
schools were factors that were conducive to technology's
being implemented in educational programs. Computers,
educational television, and other educational programs
using various technologies were developed to help

educators teach students with different learning styles while adding variety to instructional techniques.

Although conditions were favorable in the 1960s and the 1970s, technology and its effect on education continued to be minimal. School districts did not support the implementation of technology in classrooms. "The schools, compared with other institutions, have responded very little to this technology revolution. But it is difficult to believe that schools can have a future apart from technology" (Papert, cited in Petty & Cacioppo, 1988, p. 51). Businesses and industries continue to request of educators that graduates come to them with marketable skills. Although technology in the classroom holds potential for students to gain marketable skills, educational systems continue to adhere to past practices (Dagget, cited in Petty & Cacioppo, 1988).

Research conducted in the 1980s revealed that learning was likely to be affected by a variety of complex interactions between the personal characteristics of a student and teacher, the style of learning and teaching preferred by each, the demands of the subject being studied, and the learning-teaching style adopted for this purpose (Burgar & Hoover, cited in Kirst, 1984). It was generally thought that learning and teaching styles could be developed, and that it was in the interests of both

students and teachers to extend and improve existing styles to meet the demands of different types of learning and teaching. However, the fear of technology (automation) replacing humans (teachers) continued to prevent technology from entering classrooms.

The technology of the 1980s developed to improve styles of instruction to meet the demands of different types of learning and teaching. This technology includes virtually every student-sized and classroom-sized application of information technology imaginable-- potential for students to produce television programs to students using supercomputers, from teachers reducing their clerical burdens to teachers making fantastic electronic presentations. Americans live in a wired nation, but most schools (singly and collectively) are oblivious to that fact (Weinstein, cited in Mecklenberger, 1990a).

Varying learning styles, multiple intelligences, cooperative learning, critical-thinking skills, global awareness, health awareness and disease prevention, school improvement, and accreditation standards seem to be the priorities of education in the 1990s. The 1990s are described as having a more humanistic approach to education. Three questions need to be answered as educators pursue a humanistic approach: What process should be used to develop instruction? What procedures

should be used to evaluate teaching and teaching systems? How should educators foster creativity?

The 1990s involves much discussion among educators as to preparing students for the year 2000. "Our world is being transformed by the extraordinary capability of the most versatile of man-made tools. But for most in education . . . this is largely a secret" (Mecklenberger, 1990a, p. 106). Furthermore, an often-repeated purpose of education is to teach human beings to use the tools of civilization (Goodlad, 1984). These tools are video technologies, computers, cameras, telecommunication devices, and several other applications of electronic technologies that add spirit and enthusiasm when used well (Grunwald, 1990). This spirit is demonstrated in an excerpt from Papert's Mindstorms (cited in Grunwald, 1990):

> The child programs the computer and, in doing so, acquires a sense of mastery over a piece of the most modern and powerful technology and establishes an intimate contact with some of the deepest ideas from science, from mathematics, and from the art of intellectual model building. (p. 114)

Uses of Technology in Education

"The patriarch of the tools of schooling is the pencil, the matriarch is the pen and the rest of the family is an assortment of crayons and plastic measuring sticks" (Goodlad, 1984, p. 21). Even though the world of

technology is rapidly changing, educational systems remain separated from these technological advancements. Although present-day life continues to become increasingly dependent on forms of technology that were never before available, educational systems continue to function in the absence of technology.

The researcher's purpose in this study was to provide an overview of the technology that led to the discovery and implementation of Channel One. Although there is a continual and rapid change in technology, a broad-spectrum overview of many systems of technology follows. After the discussion of each system of technology, examples are given of services within each system and how these services have affected or will affect school districts now or in the future.

The telephone is the forerunner of modern communications, uniting the world with two-way, spontaneous communication. Invented in 1876, the telephone has evolved into a sophisticated global network. Called the largest network in the world, the telephone system is used for data (including data over voice applications), compressed video, facsimile, electronic bulletin boards, telesketch pads, and several other types of electronic transmissions. Computers hooked up to telephone lines gather and transmit information to thousands of sources.

The telephone network does have shortcomings. The traditional telephone network is too slow for data communication. The telephone is an analog-based system, and data communication is a digital-based system. Integrating communications between analog-based systems and digital-based systems is prohibitively expensive.

Gateways, a telephone directory service, offers a variety of information involving educational products for teachers. Computers are "on-line" with telephones throughout many school districts for communication and information purposes. There are hundreds of toll-free services that educators can use in procuring information. Many encyclopedia publishers have services for educational purposes for general-public subscription, offering discounts to teachers and students.

Broadcasting via radio and television has been considered the dominant form of electronic communication, but it, too, is changing. Television and radio will yield to other forms of telecommunication or be integrated with one-to-one communication systems. Television and radio remain a relatively cheap-per-capita way to send communications. Today, improvements in the transmitting power of Ku-band satellites enable live broadcasts directly from satellite to home via a roof-mounted dish about one meter in diameter.

Broadcast radio and television have been widely used by the government to educate the public and maintain centralized control over individuals and organizations, including education. In addition, there are several educational broadcasts with educational value. In some cities, the school district's board meetings are televised.

Specifically, cable television first began as a system to provide television to communities that were unable to receive a broadcast signal. Early cable systems were one-way. Educational services have not yet used network cable television on a truly national scale. However, many educational programs are available through cable networks such as the Disney Channel, the Discovery Channel, National Geographic series, and news-and-information channels.

More important, interactive cable enables subscribers to use this two-way communication for home security and safety, shopping, conferences, videotex delivery, interactive instruction, and banking. Few school systems across the United States have interactive cable; however, the tremendous potential for shared instruction from a class in one school to another class in a different school remains a consideration for the future.

Fiber-optic communications, or the process of transmitting information by light waves through thin

silicon glass strands, provides a way to greatly increase the capacity of existing systems such as cables, telephone wires, and data network hook-ups. Success stories using fiber optics, such as AT&T and Bell Laboratories using fiber optics to send 20 billion pulses of light per second carrying 300,000 voice conversations for 42 miles on a hair-thin fiber of supertransparent glass, demonstrate the potential of this technology. Optic fibers can transmit television, data, and voice information on an equal basis. Bell Laboratories transmits one billion bits of information every second on its fiber-optic system.

Distance Inter-active Learning (DIAL) has been incorporated into a few school districts. DIAL is a two-way audio and visual communication system linking school districts. A studio is set up in each school having DIAL. Lessons televised in one school are transmitted to other schools through fiber optics implanted in existing telephone lines. Fiber optics has the potential of significantly affecting education in the future.

Satellite technology connects the most remote spots of the world. There are international systems, numerous domestic stations, private systems, and a host of educationally based satellite networks. Joseph Sivo (cited in Mecklenberger, 1990a), chief of the Lewis Space Communications Division, predicted that:

Technologies to be tested . . . could lead to at least a five-fold increase in satellite communications capabilities in the 1990s. This capacity increase will be necessary to meet the rapid expansion of telephone, television, teleconferencing, electronic mail, data communications, [and] satellite traffic for the rest of the century, growing at roughly 20% per year. (p. 107)

Satellite technology has led to new educational enterprises. Specifically, CNN Newsroom, operated by Turner Broadcasting, sends news and information to subscribing schools. Channel One, owned and operated by Whittle Communications, transmits a 12-minute news-and-information program to classrooms throughout the United States. The potential of satellite technology and its effect on education is unlimited.

Storage, networking, and communication, although simplified, are the functions of computers today. Super computers, personal computers, and credit-card-size computers are the outcomes of five generations of computer development. The 1990s are the beginning of a telecommunications era in which almost all electronic devices will contain some form of computerization.

Although development of the first computers dates back to 1959, school districts have been slow to include computers in schools (especially compared to businesses and industries). Computer laboratories are found in many schools, often with outdated hardware and software. Numerous educational services are available for use in the

classroom. IBM's Educational System, National Geographic's Kids Net, IBM's and Sears's co-developed Learning Network, PRODIGY, IRIS, and Schoolink are a few of the computer programs available for educational use today. The future of computer technology and its effect on education is promising, with ongoing research into a computer with the ability to reason out solutions for itself or in partnership with humans.

Videodisc technology provides a means of information storage and retrieval that far surpasses that of existing systems. The immense capacity for storage and random retrieval makes videodisc technology an ideal instructional and reference tool. Networked with a microcomputer, videodisc technology can be used to scan, review, combine, and manage vast amounts of visual information or data to provide many new services.

Videodisc technology will have a significant effect on education. Using such technology along with a computer, storage of educational records, standardized test results, and transcripts will be easily accomplished. In addition, videodisc services are available today for educational use, such as Write Once, Read Many Times (WORM), and Direct Read After Write (DRAW). Thus far, however, videodisc technology is foreign to educational markets.

Videotex is the generic term referring to the electronic message of text and graphic material. There are two types of electronic messages: one-way delivery, known as teletex, and two-way or interactive delivery, known as videotex. Videotex is distinguished from on-line database services in its ability to deliver color graphics. The most common method of delivery is via the telephone system or cable television network.

The importance of videotex is its potential to provide a universal information services. Videotex has great potential eventually to spread the information revolution to the general public as it is integrated with personal computers, creating an integrated home telecommunication center.

Videotex has special significance to business and education. Its ability to deliver color graphics makes this technological advancement advantageous. Very little use of videotex in education has been reported so far.

Teleconferencing is an electronic meeting of more than two people. The three basic types of teleconferencing are video, audio, and computer. The simplest type of teleconference is a conference telephone call. The most complex is the computer-assisted, full-motion video with multiple audio channels and facsimile.

Teleconferencing has many benefits to education as well as to business. Teleconferencing may result in a

savings of time and money as it eliminates the costs of travel and lodging. In the future, communities that are connected electronically may be as common as the video machine that teleconferencing uses today.

Office technology is providing more options for the way information is handled in business and educational settings. Consolidation and decentralization of functions is in the forefront of this technology. Typewriters have been replaced by word processors with a diversity of software. Copy machines are now linked with facsimile networks. Teleconferencing includes video, audio, and computer communication.

Although advances in office technology often are not found in educational offices throughout the nation, the effect of this technology on education inevitably will follow.

> No longer can educators afford to view themselves as single-focused, stand-alone educators, administrators, curriculum specialists, or media specialists. No longer should educators set limits to a single perspective. Technology and its impact on education results in innovative approaches to learning and living. Jobs have changed, tools have changed, students' needs have changed. (Goodlad, 1984, p. 27)

Advances in technology are more rapid today than ever before. Businesses continue to become increasingly dependent on diversified forms of technology. Channel One and many other forms of technology will continue to seek

entrance into classrooms. Education and technology need to coalesce.

Program and Goals of Channel One

Channel One is an ambitious experiment, using advanced technology to bring television news and other video resources into the classroom (Brzezinski & Johnston, 1991). Whittle Educational Network, owner and producer of Channel One, began installing equipment in schools across the United States in January 1990. The actual broadcasting of Channel One into classrooms began in March 1990. In fewer than two years, more than 9,000 schools across the nation were receiving Channel One programs daily. Whittle Communications soon will begin broadcasting Channel One to the Soviet Union (Anderson, 1991).

Using state-of-the-art facilities and equipment, the actual production of Channel One takes place in New York City. News reports originate from Whittle Communications' own crews as well as VIS News, a joint venture of NBC, Reuters, and the British Broadcasting Corporation. The Channel One broadcast is transmitted to schools via satellite before 6:00 a.m. daily. Schools receive Channel One via a KU-band satellite dish. The Channel One broadcast is automatically recorded on a videotape at a central location in the school and may be previewed before

classroom broadcasting. At the discretion of school personnel, Channel One is then sent to classrooms via a network of wiring and is viewed on a 19-inch television set in the classrooms. Whittle Educational Network provides all the hardware for Channel One viewing at no cost to the school. The entire network is supported by two minutes of commercials found in each Channel One 12-minute news-and-information program.

Mecklenburger (1990a) wrote:

New technologies can lead to new kinds of educational enterprises, which, like schools, can have enormous power and influence. [This] is the main significance of Channel One. . . . These contemporary news services aimed at adolescent audiences, which thanks in part to technology capabilities were imagined, financed, and launched by Whittle Educational Network . . . in less than a single year, exemplify the potential of large-scale electronically based educational services that can and do reach millions of learners in thousands of sites simultaneously. (p. 106)

Channel One programs are designed by Whittle Educational Network to attain five specific educational goals. These five goals and Whittle Educational Network's rationale for each one are as follows:

1. **To enhance cultural literacy.** Recent studies have shown that America's young people are deficient in their knowledge of world culture compared with peers in other nations. Channel One helps teachers address the problem daily by offering students news-and-information programming.

2. **To promote critical thinking.** Through careful reporting and in-depth analysis, Channel One aims to explore the moral, social, and political issues of the day.

3. **To provide a common language and shared experience.** Each day, Channel One brings students across the country together. Issues of common concern are presented to young people of widely varying backgrounds.

4. **To provide relevance and motivation.** Channel One makes current events relevant by showing the direct connection between global news events and the everyday lives of viewers. Once this connection is understood, young people may be motivated to care about current events and seek further information about the issues of the day.

5. **To strengthen character and build a sense of responsibility.** By presenting role models whom students can relate to and respect--political leaders, athletes, scholars, and the like--Channel One reinforces the positive values that schools and teachers strive to develop in students.

In addition to Channel One, Whittle Educational Network transmits the Classroom Channel and the Educators Channel, both of which are designed for educators. The Classroom Channel is an independent, noncommercial educational program that is owned and operated by 43 public television stations supplying 250 programs

annually. The Educators Channel provides programs on teaching techniques, classroom strategies, and updates on current trends and research.

Whittle Educational Network distributes a monthly teachers' guide that highlights program information and classroom ideas. The teachers' guide presents each week's series and offers activity and discussion topics, as well as extended resources and a glossary of terms.

Channel One's 50-member staff includes producers and directors who have come from all major networks and other major affiliations. The staff includes numerous winners of Emmy awards and other awards for news production.

Whittle Educational Network maintains an educational advisory board of 20 experienced educators from across the United States. The board is an organization that offers guidance, assistance, ideas, and perspective.

Review of Related Studies

Upon reviewing the literature and from conversations with personnel at Whittle Educational Network, the researcher determined that there were four studies involving Channel One. Telephone conversations with the directors of those investigations revealed that two studies had been completed and the other two had not been completed. Therefore, this review of related studies is a combination of a review of the literature, interviews with

directors of the studies, and conversations with personnel at Whittle Educational Network.

Bradley Greenberg (1991), professor in the Department of Telecommunication at Michigan State University, conducted a study titled "Effects of TV News and Advertising in the Classroom: An Evaluation of Channel One." The research compared students from two high schools receiving Channel One to students from two other high schools not receiving Channel One. Two questionnaires were administered to students at all four schools. The first questionnaire was designed to assess all of the study variables. The second survey was intended to assess gratifications received from exposure to news, the extent of the attention given to the news, knowledge gained from watching the televised news, and priorities of adolescents as a result of news viewing.

Greenberg's major findings were that:

1. Students who viewed the Channel One television news program learned significantly more about the events reported than did students who did not view Channel One.

2. Channel One viewers "more highly" evaluated the products advertised on Channel One and expressed "more materialistic attitudes" than students without the school channel.

3. There was no significant difference between viewers and nonviewers with respect to purchases of products advertised on Channel One.

4. There was no significant difference between the two groups as to increased discussions with peers or parents about products advertised on Channel One.

5. Students who viewed Channel One learned 9% more about news events on Channel One than did students without Channel One, when surveyed the first time (in March 1990). A second survey (in May 1990) revealed that viewers learned 20% more than nonviewers.

6. The research showed no significant difference between Channel One viewers and nonviewers with regard to priorities given to news and public-affairs issues presented on Channel One.

7. The research showed no significant difference between Channel One viewers and nonviewers with regard to obtaining more gratification from news and public-affairs programs.

"Taking the Measure of Channel One: A Program of Research" (in press) is a second study being conducted by Jerome Johnston, professor with the Institute for Social Research at the University of Michigan, and Evelyn Brzezinski, researcher with Interwest Applied Research in Beaverton, Oregon. In the second year of the three-year study, the research is being conducted in 19 pairs of

schools around the country. Each pair, called a site, consists of one school that views Channel One and a school with similar demographics that does not view the channel. Specifically, the sites were selected to represent a range of community, school, and student types from small rural areas to large schools in urban settings. The study includes not only public but also parochial schools.

By integrating questionnaires, case studies, and content analysis, the researchers hope to attain a reliable assessment of Channel One and other network programming and how they fit the needs of students and teachers.

The study continues to search for answers to the following questions:

1. Does viewing of Channel One make a difference for students who watch it?

2. Do viewers know more about what is happening in today's world?

3. Do viewers become more interested in following the news?

4. Do viewers better understand core social studies concepts that appear on the news?

5. Do viewers have a better sense of geography?

Results will be released by the researchers as sufficient data accumulate to provide a reliable and valid assessment of Channel One's effect on its viewers.

In addition to the two studies reviewed, according to Whittle Educational Network, two additional studies have been undertaken: those by Kathleen Endress, professor at the University of Akron, and Howard Mehlinger, professor at Indiana State University. Both researchers investigated the effects of Channel One on its viewers by comparing control groups with experimental groups. Further information on these studies was not revealed to the researcher.

History of School Surveys

Through the review of literature on the history of school surveys, the notion of using the survey questionnaire method to gather data was supported as an efficient practice in education, dating back to the early 1800s. The review of the history, use, and importance of the survey questionnaire led to the development and administration of the Channel One survey questionnaire in this study.

Horace Mann left his law practice in 1837 to become the secretary of the Massachusetts State Board of Education. Mann has become known as the Father of the Common Schools. His study of European educational methods in 1843 was the subject of his famous twelve annual reports. These famous annual reports were the outcomes of surveys Mann and his staff conducted and the earliest

record of surveys used in formalized education as it is known today.

The first United States Commissioner of Education, from 1867 to 1870, was Henry Barnard. Publisher of the <u>American Journal of Education</u>, Barnard used surveys extensively to conduct his studies. As a result of his research, a new National Code on Education was passed by the legislature and implemented across the nation. Barnard's <u>Report on the Condition and Improvement of the Public Schools of Rhode Island</u>, published in 1845, remains the forerunner of the modern school survey.

The teaching methods used in the 1800s stressed memorization and discipline. Francis W. Parker, an Illinois educator, studied the effects of memorization and discipline on instruction. He used surveys to gather needed information. His findings revolutionized instruction. Parker found that the chief goal of instruction was the complete development of every child and that greater freedom was needed to achieve this goal. Subsequent studies on this topic were conducted until the turn of the century, using surveys to collect data.

In 1897, the Chicago Educational Commission conducted the most comprehensive survey undertaken by a single school district. In his book <u>City School Surveys</u>, Hollis stated that the Chicago community thought its schools were

"not giving a measure of results commensurate with the general financial resources furnished by the people" (American Association of School Administrators, 1959, p. 22). Twelve members served on a task force that surveyed students, teachers, and parents. The task force's research revealed a diversity of concerns; textbooks, architecture, truancy, promotions, teachers, and equipment were included. Twenty articles with recommendations for improvement were the outcomes of this task force's research.

From 1900 to 1946, 461 surveys were conducted by school systems throughout the nation. Since the beginning of American education to the present, the use of surveys has been vital to research.

Hand (1965) described the virtues of schools surveying parents, educators, and students. In particular, school administrators need to survey for prognosis of community relations. Hand stated that, to be successful, one must constantly be aware of perceptions in order to emphasize and prioritize needs. Hand also focused on the survey instrument itself in meeting four requirements: (a) a rationale for each item on the survey, (b) appropriate methods for conducting surveys, (c) analyzing the findings of the survey, and (d) reporting the research findings.

The Southern Association of Secondary Schools (1951) developed a survey for evaluating school programs. This survey was available for use in 1951. A rather lengthy survey, it was categorized into five sections: formulation of values and goals, listing of functions, school program, resources, and plans for improvement. The design of this survey was to create a tool for planning curriculum change.

In a comprehensive study identifying the criteria necessary for evaluation, the American Association of School Administrators and the National School Boards Association (1959) clarified the methods of evaluation in education. Their research, completed in 1959, stated that evaluations should (a) be based on stated objectives, (b) be based on comprehensive knowledge, (c) be continuous and ongoing, (d) be comprehensive in nature, (e) involve many parents, (f) be positive as well as negative, (g) use many methods, (h) require the administration and board to look at themselves, (i) be based on the belief that people make a difference, and (j) bring forth improvement.

In 1960, the Midwest Center of the University of Chicago engaged in a major study surveying four regions in the United States and one in Canada. Citizens were asked to make decisions about the importance of 16 intellectual, social, personal, and productive dimensions (Saxe, 1975). Outcomes of this research were as follows: There was

considerable agreement about the task of the public school. In addition, community type, gender, income, and proximity to the school were not closely associated with educational viewpoint. This study remains of special interest because of its scope and findings used in subsequent investigations. Proposing that a national assessment program be implemented that would determine the educational levels attained by high school graduates, Rickover (1962) recommended a national board to develop goals and standards for the nation's schools. McNeal (cited in Rickover, 1962) was at the forefront of the opposition in 1962 and articulated reasons for the group he was representing. McNeal stated:

1. Educators are afraid evidence will be collected that will test students' ability to recall information and not prove competency.

2. Educators are process oriented and believe that assessing learning is not as important.

3. Educators distrust results and interpretations.

4. The possibility exists that certain practices or ideas may not be valid.

The Carnegie Corporation funded a project in 1965 to assess education on a national basis (Gardner, 1965). Of particular concern was the mapping of strengths and weaknesses on a regional basis throughout the United

States. In addition, it was hoped that providing informa-
tion for educators would encourage future research. The
design of the survey was intended to provide for inter-
national comparisons. Last, this study was implemented to
increase interest in education, in general, throughout the
United States.

Teachers, students, and parents participated in a
survey designed to assist their school district in
developing educational goals, ranking these goals, and
translating their rank into performance objectives.
Designed to increase accountability, the survey instrument
was developed by the Program Development Center of
Northern California in 1968.

A version of Rudman's questionnaire was used in
Belding, Orleans, and Gratten, Michigan, in 1973. The
survey was used to assess community members' attitudes
toward their school district. Additional goals of this
study were to improve community relations and win a
millage election. Findings were presented to the Belding
Chamber of Commerce in a report entitled "Winning an Elec-
tion" (Michigan State University, 1973).

The National School Public Relations Association
published a Student Opinion Inventory in 1974. The
intention of this survey was to "assess student attitudes
toward many facets of school and to provide student
recommendations for improvement" (p. 32). The major

thrust of this study focused on student morale. Field tested nationwide, this inventory has determined reliability and validity.

In 1978, Russell Ramsey, endorsed by the National Foundation of Humanities, studied teachers' perceptions of the line between public education and society. He surveyed 350 teachers, and these teachers, in turn, polled local citizens. Conclusions drawn from the data indicated that:

1. Communities expect school systems to take on a broad range of social, economic, and moral issues.

2. The "public will" is inevitably going to be carried out by schools in some form.

3. Teachers represent a great unmined potential for the resolution of nagging social problems.

Since 1981, the Michigan State Board of Education has surveyed its state residents through Project Outreach. A public opinion survey is conducted annually by telephone in households throughout the state. Project Outreach offers its services in helping local school districts survey their own community members.

"Twenty-nine percent of the public had a great deal of confidence in those running the nation's educational system" was one of the outcomes of the survey conducted in 1982 by the National Opinion Research Center (NORC)

(Sirontnik & Muth, 1986, p. 9). The NORC survey also revealed that "forty-two percent of the parents graded the schools with an A or B" (p. 21). This survey also indicated that the public thinks America is spending too little on improving the nation's educational system. However, mixed poll results indicated an unwillingness to pay more taxes.

Albee (1982) designed and administered a survey to determine attitudes toward the schools, staff members, quality of education, and quality of support services. The results of this survey have been used for short- and long-range financial, curricular, and personnel planning in the school district. Data were used as a basis for needed change and maintenance of programs for further research.

The Center of Educational Field Services in the College of Education at the University of Maine offers a comprehensive survey and assessment service to local school districts (Berman & McLaughlin, 1974). This survey was designed to gather data in the following areas: (a) community members' regard for schools, (b) the community's enthusiasm for supporting its school system, and (c) the community's perception of excellence. This survey has been field tested and used in 21 school districts throughout Maine.

To develop guidelines for educating teachers in the area of parent involvement and to establish a research base of information regarding involvement by parents and educators were the two goals of a survey developed and administered by the Parent Involvement in Education Project in 1984 (Williams, 1984). Funded by the National Institute of Education, this survey involved six states (Arkansas, Mississippi, Louisiana, New Mexico, Texas, and Oklahoma). More than 7,000 participants responded to this survey. The study revealed that "in order to improve the quality and effectiveness of public schools, parents and educators must develop more of a collegial or collaborative relationship regarding educational issues and concerns, not an adversarial relationship" (p. 41). Further implications of this study were:

1. Parent involvement is an acceptable way to participate in the educational process.

2. Parents have a high degree of interest in being involved.

3. Parents want to be involved more than what educators think they should be involved.

4. Educators exhibit a sense of fear when those things generally considered under their domain become issues in which parents want to be involved.

In 1986, Perlman (cited in Gore, 1990) investigated the importance of reporting test results to the public

effectively and efficiently. To gain the necessary data, she designed a survey to determine the following: to whom results are reported, how results are reported, the most commonly asked questions, the problems in dealing with the press, the information that should be included, and techniques to use in dealing with the media. The survey was in two parts. The first was used in surveying the National Association of Test Directors; the second was used in interviewing members of the news media.

Two years later, Atkins (cited in Down, 1985) published a comprehensive analysis of Mississippi Public School education programs for school-aged children with severe handicaps. One hundred twenty-four interviews were conducted with regular and special education teachers. In addition, 78% of the parents of the severely handicapped children were surveyed by telephone. As a result, eight practices were found to be exemplary and gained national recognition for implementation.

In 1990, Ulrich (cited in Gore, 1990) administered a survey that was designed to gather data on administrator competence. Surveys were sent to each state education agency to ensure that certified candidates had attained the knowledge required to fulfill the duties of a school administrator.

Use of the School Survey

Henry Barnard, the first United States Commissioner of Education (from 1867 to 1870), used research from surveys in conducting his studies (Albee & others, 1984). Since then, surveys have been used to meet a diversity of needs in education. "Surveys often result in an assessment" (Carnegie Corporation, cited in Berman & McLaughlin, 1974, p. 16). This assessment of an educational phenomenon may result in implications requiring follow-through and improvement. "Surveys often result in a prognosis" (Hand, 1948, p. 22). Furthermore, "success is related to perceptions, and perceptions are gathered by surveys" (Barnard, cited in Down, 1985, p. 17).

A survey is a vehicle for communication and may "reveal a diversity of concerns" (Hollis, cited in Southern Association of Secondary Schools, 1951, p. 52). Inasmuch as a chief concern of education today is curriculum, "surveys have significant advantages in evaluation curriculum" (Southern Association of Secondary Schools, 1951, p. 11).

Furthermore, a survey is an outreach to others attaching importance to the participants' input. "Based on the belief that people make a difference, surveys encourage input from others" (National Association of School Boards, 1959, p. 4). "Surveys have been a primary type of research activity with educational systems since

the first one-room school house" (Reynolds, cited in Saxe, 1975, p. 6).

The Importance of the School Survey

Horace Mann, the Father of the Common Schools, published twelve annual reports that were based on numerous surveys and interviews conducted in 1837. In essence, "the data from the surveys started to shape early American education" (Reynolds, cited in Saxe, 1975, p. 7).

Parker studied the delivery systems that teachers implemented in the early 1800s (Silberman, 1970). Based on his findings from surveys and his professional experience, he supported that the goal of instruction must be to focus on the complete development of the child. The survey gained in importance as it served as the basis for educational reform.

The importance of school surveys remains varied and pertinent today. To improve school-community relations, a survey was conducted in Belding, Michigan, and presented to the Belding Chamber of Commerce (Michigan State University, 1973). Another survey was administered to determine attitudes toward education (Albee & others, 1984). Surveys also have been used to develop guidelines and to establish research (Williams, 1984).

Educational issues such as school funding, substance abuse, academic standards, and the like, will continue to

prompt school systems to survey their community members. "Surveys are extremely important; the survey's potential for reaching the most people in a timely fashion is extremely imperative in this fast-moving society" (Johnson, 1990, p. 152).

Summary

The review of the literature highlighted the research sources that formed the basis for technology and its effect on education, both past and present; Channel One's program and goals; and the role of surveys in research. There is neither a preponderance of related studies nor even a significant number of reports revealing results, outcomes, or implementations of decisions involving the effect of technology on education. It appears that educators have acted slowly in incorporating technology into education.

Based on the review of literature, the following implications are summarized:

1. Technology and education have yet to coalesce. It is essential that students receive an education today that will best prepare them for the rapidly changing world of tomorrow. Technology has a tremendous potential to benefit education.

2. Channel One has significant potential to affect students favorably and to lead other forms of technology into education.

3. The validity and usefulness of the survey method have been proved through educational research.

The review of literature and study of research are vital in program development and improvement. However, expending money and time to conduct a survey with no follow-up is not only counterproductive, it is also an exercise in futility.

CHAPTER III

DESIGN OF THE STUDY

<u>Introduction</u>

The purpose of this study was to provide an assessment of Whittle Communications' attainment of Channel One's five educational goals, as perceived by students and teachers. Chapter I provided an introduction to the study, whereas Chapter II furnished a review of literature relevant to the principal concerns of the study. The purpose of Chapter III is to state the research questions and to discuss the research methodology, survey instrument, population, procedures for sample selection, data-collection procedure, and treatment of the data.

The review of literature indicated a lack of research on technology that has affected education. Therefore, this study was an attempt to provide an assessment of one technology that can be generalized to other assessments of other technologies. Furthermore, the design of the study is an attempt to provide structure that also can be generalized to future studies of technology and its effect on education.

The Research Questions

Research questions were posed by the researcher, based on Whittle Communications' five educational goals for Channel One. Therefore, responses were sought to the following questions:

1. Does viewing Channel One enhance students' cultural literacy?

2. Does viewing Channel One promote students' critical-thinking skills?

3. Does viewing Channel One provide a common language and shared experiences for students?

4. Does viewing Channel One provide students with relevance and motivation?

5. Does viewing Channel One strengthen students' character and build a sense of responsibility in students?

Research Methodology

The study was constructed on the research methodology of descriptive research. Descriptive research has been characterized as being "concerned with conditions or relationships that do exist; practices that prevail; beliefs, points of view, or attitudes that are held; effects that are being felt or trends that develop" (Best, 1970, p. 17). The purpose of descriptive research is to characterize a sample and to reveal "what is" (Borg & Gall, 1990).

The Survey Instrument

The survey instrument used in this study was a questionnaire. The purpose of the survey questionnaire was to measure students' and teachers' perceptions of attainment of the five educational goals of Channel One, as specified by Whittle Communications. The survey questionnaire can provide precise results if it is administered properly (Jacobs, cited in Best, 1986).

The development of the survey questionnaire began with the study of the five educational goals of Channel One, as specified by Whittle Communications. Following goal study and analysis, a review of the literature and related studies supported the researcher's construction of the survey questionnaire.

It became apparent during the review of literature that the broad spectrum of Whittle Communications' five educational goals made it difficult or impossible to design questions with right or wrong answers. Thus, the concept of degrees of perception was decided as the best method to gather data. The researcher and a university professor of statistics agreed that the concept of degrees would best reveal the students' and teachers' perceptions of Whittle Communications' attainment of the five educational goals of Channel One.

A rough draft of the questionnaire was reviewed by a panel of experts (three university professors having

conducted studies on Channel One, a university professor of statistics, a K-12 curriculum director, two building administrators, and a media director). The questionnaire was then field tested at a local high school. After all input was considered, the survey questionnaire was finalized.

The survey questionnaire contained 40 questions. In addition, the questionnaire allowed handwritten comments by respondents. The survey contained two parts: part one for students' use and part two for teachers' participation. Part one was worded in such a manner as to gain the students' perceptions. In part two, teachers were asked to respond to how they perceived that Channel One had affected students. (For example, a question stated in part one for student response was, "Has Channel One improved your map skills?" The corresponding question in part two was, "Has Channel One improved your students' map skills?" Part two asked teachers to respond as to how they perceived Channel One had affected their students.)

The Population

The population for the study consisted of all high schools in Michigan that had been receiving Channel One's news-and-information programs for a minimum of one semester. The minimum viewing time was required to allow for "the enchantment of the new technology to diminish and

regularity to be restored" (Ramsey, 1983, p. 103). In addition, a semester is a uniform and definite interval of time shared by public and private schools throughout Michigan.

Sampling Data

For the results of the survey to be useful and projectable to the entire community, a random sample was selected that was representative of the population, in order for it to be statistically valid. Further clarification is given under the heading Procedures for Sample Selection.

There are several reasons why a sample was studied, instead of the entire population. The most obvious reason was the excessive cost and/or difficulty of studying the entire population. In addition, it was impossible to gain access to the entire population. Last, to survey the entire population was considered impracticable.

Procedures for Sample Selection

The sample was selected using the methodology of cluster random sampling. All high schools, public and private, in Michigan that had been receiving Channel One news-and-information broadcasts for a minimum of one semester were placed on a list. Each listed high school was assigned a number. The researcher randomly selected

four school numbers. Michigan Department of Education administrators were consulted to aid in the random selection, to ensure diversity of community characteristics, including income, racial composition, population, and distance from urban centers. All procedures were in accordance with Fraenkel's (cited in Borg & Gall, 1990) design for sample selection.

Upon receiving approval from authorized school personnel of the high schools that had been randomly selected, the researcher administered the survey question-naire to students during classes. Teacher questionnaires were administered during a staff meeting. Inasmuch as the researcher conducted the survey, more than the minimum number of subjects needed in a descriptive study was ensured. The minimum number of subjects needed in a descriptive study is 100 (Fraenkel, cited in Borg & Gall, 1990). Random selection included additional high school selections for high schools choosing not to participate in the survey.

Data-Collection Procedure

Data were collected on site during school hours. The researcher administered the survey questionnaire to students during class time and to teachers during a staff meeting. The survey questionnaire took 15 minutes to

complete. Thank-you notes were sent to the participating schools following the survey.

Treatment of Data

The Statistical Package for the Social Sciences (SPSS-X) was used in the statistical analyses. The goal of the statistical analyses was to procure an assessment of Whittle Communications' attainment of Channel One's five educational goals, as perceived by students and teachers. Patterns were identified from the responses gathered from the survey questionnaires.

Independent-group t-tests using pooled and separate variance estimates were used to test each hypothesis. In addition, t-tests were performed on SCALES, a total of five SCALES each representing one of Whittle's five educational goals. One-way analysis of variance (ANOVA) was used to test for significant differences. Scheffe post-hoc analyses were performed to determine pairwise differences when ANOVA tests indicated the existence of significant differences. Two-way analysis of variance was performed to determine whether differences existed in the demographic variables common to both students and teachers. Handwritten comments were summarized and included in the report of findings.

There were four possible responses to each of the 40 statements in the questionnaire. Assignment of values to

each response was as follows: Strongly Agree = 1, Agree =
2, Disagree = 3, Strongly Disagree = 4. The highest mean
average of the variable group equaled its proximity to 1
or Strongly Agree. Conversely, the lowest mean average
equaled its proximity to 4 or Strongly Disagree.

Summary

In this chapter, a description of the planning and
implementation of the study was presented. Attention was
focused on development of the research questions and the
research methodology used. The type of study and develop-
ment of the survey instrument were described. The popula-
tion, sampling methods, and procedures used to collect the
data followed. The statistical procedures used in data
analysis were the final topic of Chapter III. The results
of these analyses are reported in the following chapter.

CHAPTER IV

ANALYSIS AND INTERPRETATION OF THE DATA

Introduction

The major purpose of this study was to provide an assessment of Whittle Communications' attainment of Channel One's five specific educational goals, as perceived by students and teachers. Each of the five educational goals was formulated into a hypothesis, and statistical analyses followed each. The hypotheses are as follows:

Ho 1: There is no significant difference between students' and teachers' perceptions of Whittle Communications' attainment of Channel One's first educational goal--"to enhance cultural literacy."

Ho 2: There is no significant difference between students' and teachers' perceptions of Whittle Communications' attainment of Channel One's second educational goal--"to promote critical thinking."

Ho 3: There is no significant difference between students' and teachers' perceptions of Whittle Communications' attainment of Channel One's third educational goal--"to provide a common language and shared experience."

Ho 4: There is no significant difference between students' and teachers' perceptions of Whittle Communications' attainment of Channel One's fourth educational goal--"to provide relevance and motivation."

59

<u>Ho 5</u>: There is no significant difference between students' and teachers' perceptions of Whittle Communications' attainment of Channel One's fifth educational goal--"to strengthen character and build a sense of responsibility."

Each hypothesis was constructed from a corresponding research question. Each hypothesis contained eight questions called a SCALE. Cronbach's alpha and standardized item alpha provided the means for evaluating the multiple-item additive SCALES through the computation coefficients of reliability.

The data presented in this chapter were collected with a survey questionnaire developed by the researcher. The questionnaire was administered to 150 teachers and 600 students in four randomly selected high schools in Michigan. The data were processed by computer using the SPSS program at the Michigan State University Computer Center.

Procedure

Independent-group t-tests using pooled and separate variance estimates were used to test the data for each research question, SCALE, and hypothesis. One-way analysis of variance (ANOVA) was used to test for significant pairwise differences between students' and teachers' perceptions. Two-way analysis of variance was performed to determine the statistical significance of perceptions by demographic variable groupings.

Handwritten comments were summarized and included in the
report of findings.

Demographic Data

Listed in Tables 1 through 7 are the demographic
statistics describing the study participants.   The
demographic data requested for students were grade and
gender.   The demographic data requested for teachers were
age, gender, and educational attainment.

Gender

The data in Table 1 show that 53.6% of the total
sample were males and 45.3% were females.

Table 1.--Distribution of participants by gender.

Gender	Number	Percent of Population
Male		
Students	292	24.0
Teachers	88	29.3
Female		
Students	300	25.0
Teachers	61	20.3
Missing		
Students	8	.7
Teachers	1	.4
Total	750	100.0

Age

The data in Table 2 show that the greatest percentage of teachers (38.7%) were 45 to 54 years of age. The age category of 25 to 34 years contained no participants.

Table 2.--Distribution of teachers by age.

Age Group	Number	Percent
18-24	29	19.3
25-34	0	0.0
35-44	50	33.3
45-54	58	38.7
> 55	13	8.7
Total	150	100.0

Degree Held

As shown in Table 3, the largest percentage (57%) of teachers held a master's degree. Three participants had a specialist degree.

Table 3.--Distribution of participants by degree held.

Degree Held	Number	Percent
Bachelor's degree	62	40.0
Master's degree	85	57.0
Specialist degree	3	2.0
Ph.D. degree	0	0.0
Total	150	100.0

Grade

The distribution of students by grade showed them to be within a 5% difference of each other (see Table 4). The greatest percentage of participants were eleventh graders (27.4%). Tenth graders made up the smallest proportion of the student sample (22.7%).

Table 4.--Distribution of student participants by grade.

Grade	Number	Percent
Ninth grade	148	24.7
Tenth grade	136	22.7
Eleventh grade	164	27.4
Twelfth grade	148	24.7
Missing	4	.7
Total	600	100.0

Results of Hypothesis Testing

Hypothesis 1

There is no significant difference between students' and teachers' perceptions of Whittle Communications' attainment of Channel One's first educational goal-- "to enhance cultural literacy."

Cronbach's alpha was used to test the reliability of SCALE 1. The results are reported in Table 5. SCALE 1 proved reliable, with an alpha of .7872 and a standardized alpha of .7942. The reliability of SCALE 1 was accepted at the .05 level of confidence.

Table 5.--Reliability analysis of SCALE 1:   "to enhance
          cultural literacy."

Source of Variation	Item
Broadcasts made aware of world outside	1
Increased understanding of different cultures	2
Gained knowledge of own culture	3
Programs helped understand lessons	4
Learned geographic locations and map skills	5
News broadcasts increased world-events knowledge	6
Gained knowledge from watching	7
Watching increased understanding	8

Reliability coefficient alpha = .7872
Standardized alpha = .7942

T-tests were used to examine the measures for testing the hypothesis. Table 6 lists the results of the t-test. The t-value (-5.91) and corresponding probability (.000) were less than the .05 alpha level. Thus, there was a significant difference between students' and teachers' perceptions of Whittle Communications' attainment of Channel One's first educational goal--"to enhance cultural literacy."

T-tests also were used to determine significant differences between groups. Results are shown in Tables 7 and 8.

In comparing female teachers and female students, the t-value (-3.43) and corresponding probability (.001) were less than the .05 alpha level (see Table 7). Thus, there

65

was a significant difference between female teachers and female students in their perceptions of Whittle Communications' attainment of Channel One's first educational goal--"to enhance cultural literacy."

Table 6.--T-test results of teachers and students on SCALE 1: "to enhance cultural literacy."

Factor	n	Mean	SD	t-Value	df	p-Value
Teachers	150	1.9764	.380	-5.91	298	.000
Students	600	2.2342	.375			

Table 7.--T-test results of females on SCALE 1: "to enhance cultural literacy."

Factor	n	Mean	SD	t-Value	df	p-Value
Teachers	61	1.9857	.338	-3.43	134	.001
Students	300	2.2067	.400			

In comparing male teachers and male students, the t-value (-5.08) and corresponding probability (.000) were less than the .05 alpha level (see Table 8). Thus, there was a significant difference between male teachers and male students in their perceptions of Whittle Communications' attainment of Channel One's first educational goal--"to enhance cultural literacy."

Table 8.--T-test results of males on SCALE 1:   "to enhance
         cultural literacy."

Factor	n	Mean	SD	t-Value	df	p-Value
Teachers	88	1.9627	.404	-5.08	159	.000
Students	292	2.2688	.351			

There were significant differences by gender only.
None of the other variable groupings of teachers and
students differed significantly on SCALE 1.

In analyzing the mean scores of teachers and students
on the eight questions making up SCALE 1, it was found
that the mean averages of the teachers were higher (that
is, closer to 1 or Strongly Agree) than those of students
on each question except number 8 (see Table 9). Teachers'
mean average on Question 8 was .1667 lower in response to
this item. The largest mean difference was in response to
Question 5 (with a .4599 difference in mean average
calculations), with the second largest mean difference in
response to Question 3 (at .4333). Responses to Question
4 were most similar (with a mean average difference of
.3412). The highest mean average (1.6667) was the

teachers' response to Question 1. The lowest mean average (2.6133) was the students' response to Question 4.

Table 9.--ANOVA of mean scores of teachers and students for the eight questions making up SCALE 1.

	Factor	n	Mean	SD
Question 1:	Broadcasts made aware of world outside			
	Teachers	150	1.6667	.539
	Students	600	1.9333	.620
Question 2:	Increased understanding of different cultures			
	Teachers	150	1.9800	.511
	Students	600	2.2467	.612
Question 3:	Gained knowledge of own culture			
	Teachers	150	2.0067	.609
	Students	600	2.4400	.737
Question 4:	Programs helped understand lessons			
	Teachers	150	2.2721	.614
	Students	600	2.6133	.663
Question 5:	Learned geographic locations and map skills			
	Teachers	149	2.0201	.563
	Students	600	2.4800	.748
Question 6:	News broadcasts increased world events knowledge			
	Teachers	150	1.6733	.512
	Students	600	1.9667	.628
Question 7:	Gained knowledge from watching			
	Teachers	150	1.9533	.037
	Students	600	2.1733	.553
Question 8:	Watching increased understanding			
	Teachers	150	2.1867	.617
	Students	600	2.0200	.700

Hypothesis 2

There is no significant difference between students' and teachers' perceptions of Whittle Communications' attainment of Channel One's second educational goal-- "to promote critical thinking."

Cronbach's alpha provided the means for evaluating the multiple additive questions of SCALE 2 through the computation of coefficients. Using Cronbach's reliability coefficients, a coefficient alpha and standardized alpha determined the reliability of SCALE 2. The results are shown in Table 10.

Table 10.--Reliability analysis of SCALE 2: "to promote critical thinking."

Source of Variation	Item
Presents the issues of our day	9
Presents news and information through reporting	10
Presents news and information with in-depth analysis	11
Stories presented without prejudice	12
Differing views presented	13
Reports news from teenage perspective	14
Reporting challenges students' views on issues	15
Programs encouraged students to form own views	16

Reliability coefficient alpha = .7330
Standardized alpha = .7320

With a coefficient alpha of .7330 and a standardized alpha of .7320 at the .05 alpha level, SCALE 2 proved reliable. In general, the reliability attained for SCALE 2 resulted in an accurate, on average, estimate of the true score of the eight questions the SCALE represents.

As shown in Table 11, the t-value (-1.25) and corresponding probability (.213) were greater than the .05 alpha level. Thus, Hypothesis 2 was not rejected. There was no significant difference between students' and teachers' perceptions of Whittle Communications' attainment of Channel One's second educational goal--"to promote critical thinking." In general, teachers and students agreed that Channel One promotes critical thinking through its 12-minute news-and-information programs.

Table 11.--T-test results of teachers and students on SCALE 2: "to promote critical thinking."

Factor	n	Mean	SD	t-Value	df	p-Value
Teachers	150	2.0557	.386	-1.25	298	.213
Students	600	2.1102	.370			

In analyzing the mean scores of teachers and students on the eight questions making up SCALE 2, it was found that there was agreement between teachers and students (the mean values ranged from 1.8067 to 2.4667). In particular, teachers' and students' responses to Question 13 were most similar (with a .0201 difference in mean averages). The most diverse response of the eight questions on SCALE 2 was to Question 14 (with a difference of .2197). Hence, differences between teachers' and

students' responses to any of the individual questions
comprising SCALE 2 were not significant.

Table 12.--ANOVA of mean scores of teachers and students
          for the eight questions making up SCALE 2.

	Factor	n	Mean	SD
Question 9: Presents the issues of our day				
	Teachers	150	1.8467	.576
	Students	600	1.9733	.612
Question 10: Presents news and information through reporting				
	Teachers	150	1.8667	.514
	Students	600	2.0133	.613
Question 11: Presents news and information with in-depth analysis				
	Teachers	150	1.9733	.634
	Students	600	1.8067	.642
Question 12: Stories presented without prejudice				
	Teachers	150	1.9733	.634
	Students	600	1.8067	.642
Question 13: Differing views presented				
	Teachers	149	2.0738	.546
	Students	596	2.0537	.624
Question 14: Reports news from teenage perspective				
	Teachers	150	1.7333	.539
	Students	596	1.9530	.691
Question 15: Reporting challenges students' views on issues				
	Teachers	150	2.2600	.650
	Students	600	2.4667	.739
Question 16: Programs encouraged students to form own views				
	Teachers	149	2.3154	.582
	Students	600	2.4000	.760

Hypothesis 3

There is no significant difference between students'
and teachers' perceptions of Whittle Communications'
attainment of Channel One's third educational goal:
"to provide a common language and shared experience."

With a coefficient alpha of .7529 and a standardized

alpha of .7577, SCALE 3 was evaluated as reliable at the

.05 alpha level (see Table 13).

Table 13.--Reliability analysis of SCALE 3: "to provide
a common language and shared experience."

Source of Variation	Item
Presents issues of common concern	17
Watching gave students knowledge to discuss	18
Brings students together in sharing concerns	19
Can be understood by young people	20
Helps visualize learning from text	21
News and information have been discussed	22
Discussed news and information with friends	23
Discussed news and information with adults	24

Reliability coefficient alpha = .7592
Standardized alpha = .7577

The t-value (-3.84) and corresponding probability

(.000) were less than the .05 alpha level (see Table 14).

Thus, Hypothesis 3 was rejected. There was a significant

difference between students' and teachers' perceptions of

Whittle Communications' attainment of Channel One's third

educational goal--"to provide a common language and shared

experience."

Table 14.--T-test results of teachers and students on
SCALE 3: "to provide a common language and
shared experience."

Factor	n	Mean	SD	t-Value	df	p-Value
Teachers	150	2.0706	.393	-3.84	298	.000
Students	600	2.2600	.435			

T-tests were used to determine whether male teachers
and male students responded differently to items
concerning Channel One's providing a common language and
shared experiences. The results are shown in Table 15. A
statistically significant difference (with a probability
of .000 at the .05 alpha level) was found between male
teachers and male students. This was the only variable
grouping for which the p-value was statistically
significant.

Table 15.--T-test results of males on SCALE 3: "to provide
a common language and shared experience."

Factor	n	Mean	SD	t-Value	df	p-Value
Teachers	88	2.0787	.409	-3.77	159	.000
Students	292	2.3151	.380			

The male teachers' responses had a higher mean average (2.0787) compared to students' responses (2.3151). Hence, male teachers evidenced stronger support than male students for Channel One's providing a common language and shared experiences for students.

In analyzing the mean scores of teachers and students on the eight questions making up SCALE 3, it was found that the mean averages of students and teachers were in the 2.5200 to 1.8333 range. Hence, both groups agreed that Channel One provides a common language and shared experience. The students' least favorable response to the eight questions (2.5200) was to "discussion of news on Channel One with parents and other adults" (Question 24). Teachers rated Question 21 ("helps students visualize learning from text" with the least amount of agreement (2.2483). Teachers and students responded similarly to Question 19: "bringing students throughout the world together in sharing common concerns" (with a difference of .0408 between mean averages).

Table 16.--ANOVA of mean scores of teachers and students
for the eight questions making up SCALE 3.

	Factor	n	Mean	SD
Question 17:	Presents issues of common concern			
	Teachers	150	1.8337	.523
	Students	600	1.9867	.655
Question 18:	Watching gave students knowledge to discuss			
	Teachers	150	2.1600	.614
	Students	600	2.3800	.791
Question 19:	Brings students together in sharing concerns			
	Teachers	149	2.1208	.556
	Students	600	2.0800	.671
Question 20:	Can be understood by young people			
	Teachers	150	1.8533	.510
	Students	600	1.9600	.589
Question 21:	Helps visualize learning from text			
	Teachers	149	2.2483	.657
	Students	600	2.5067	.809
Question 22:	News and information have been discussed			
	Teachers	150	2.0800	.690
	Students	600	2.2000	.803
Question 23:	Discussed news and information with friends			
	Teachers	150	2.1000	.540
	Students	600	2.4467	.856
Question 24:	Discussed news and information with adults			
	Teachers	148	2.2162	.695
	Students	600	2.5200	.688

Hypothesis 4

There is no significant difference between students' and teachers' perceptions of Whittle Communications' attainment of Channel One's fourth educational goal: "to provide relevance and motivation."

SCALE 4 proved reliable at the .05 alpha level, with a reliability coefficient alpha of .7773 and a standardized alpha of .7776 (see Table 17).

Table 17.--Reliability analysis of SCALE 4: "to provide relevance and motivation."

Source of Variation	Item
Makes current events important	25
Watching made students interested in world news	26
Learned events happen to adults and kids	27
Presents variety of important topics	28
Helps to realize the importance of education	29
Helped realize importance of doing best	30
Helped realize contributions individuals can make	31
Encouraged students to seek additional news and information	32

Reliability coefficient alpha = .7773
Standardized alpha = .7776

The t-value (-.03) and corresponding probability (.977) exceeded the .05 alpha level (see Table 18). Therefore, Hypothesis 4 was not rejected. No significant difference was found between students' and teachers' perceptions of Whittle Communications' attainment of Channel One's fourth educational goal--"to provide relevance and motivation."

Table 18.--T-test results of teachers and students on
         SCALE 4: "to provide relevance and motivation."

Factor	n	Mean	SD	t-Value	df	p-Value
Teachers	150	2.1728	.406	-.03	298	.977
Students	600	2.1742	.423			

In analyzing the mean scores of teachers and students on the eight questions making up SCALE 4, it was found that Question 27 received the highest response from both teachers (mean average = 1.8200) and students (mean average = 1.9335) as both groups agreed that "Channel One presentations have helped students learn that world events not only happen to adults but also people the same age as students" (see Table 19). Teachers responded lowest to Question 30 (mean average = 2.5034), that "Channel One has helped students realize the importance of doing their best in school." Students responded lowest to Question 32, that "Channel One has encouraged students to seek additional news and information about moral, social, and political issues" (mean average = 2.4667).

Table 19.--ANOVA of mean scores of teachers and students
          for the eight questions making up SCALE 4.

	Factor	n	Mean	SD
Question 25:	Makes current events important			
	Teachers	150	2.0333	.561
	Students	600	2.1933	.730
Question 26:	Watching made students interested in world events			
	Teachers	150	2.2000	.666
	Students	600	2.3133	.715
Question 27:	Learned events happen to adults and kids			
	Teachers	150	1.8200	.506
	Students	600	1.9333	.620
Question 28:	Presents variety of important topics			
	Teachers	150	1.8600	.556
	Students	600	1.9600	.644
Question 29:	Helps to realize the importance of education			
	Teachers	149	2.4164	.627
	Students	600	2.2067	.753
Question 30:	Helped realize importance of doing best			
	Teachers	149	2.5034	.643
	Students	600	2.3200	.754
Question 31:	Helped realize contributions individual can make			
	Teachers	150	2.1067	.557
	Students	600	2.0000	.655
Question 32:	Encouraged students to seek additional news and information			
	Teachers	150	2.4467	.700
	Students	600	2.4667	.791

Hypothesis 5

> There is no significant difference between students'
> and teachers' perceptions of Whittle Communications'
> attainment of Channel One's fifth educational goal--
> "to strengthen character and build a sense of
> responsibility."

Cronbach's alpha was used to check the reliability of

SCALE 5. In doing so, this ANOVA calculated the sample

means testing for significant differences. The results of

the analysis of reliability are shown in Table 20.

Table 20.--Reliability analysis of SCALE 5: "to strengthen
character and build a sense of responsibility."

Source of Variation	Item
Helps students understand important responsibilities	33
Presents role models to respect	34
Reinforces positive values	35
Helps students realize their importance as contributing members of society	36
Gained pride in being a U.S. citizen	37
Importance of good leadership	38
Gained understanding of future	39
Increases students' understanding of involvement in helping solve world problems	40

Reliability coefficient alpha = .8086
Standardized alpha = .8091

With a reliability coefficient of .8086 and a

standardized alpha of .8091, SCALE 5 proved reliable at

the .05 alpha level. With such large coefficients, the

reliability or accuracy of the estimate of the eight questions in SCALE 5 was quite high.

The F-value (being greater than .05) directed the researcher to use the pooled variance estimate of the t-test. Such was the case for each SCALE.

The t-value (.01) and corresponding probability (.992) exceeded the .05 alpha level (see Table 21). Therefore, Hypothesis 5 was not rejected. No significant difference was found between students' and teachers' perceptions of Whittle Communications' attainment of Channel One's fifth educational goal--"to strengthen character and build a sense of responsibility."

Table 21.--T-test results of teachers and students on SCALE 5: "to strengthen character and build a sense of responsibility."

Factor	n	Mean	SD	t-Value	df	p-Value
Teachers	150	2.1613	.419	-.01	298	.002
Students	600	2.1608	412			

In analyzing the mean scores of teachers and students on the eight questions making up SCALE 5, it was found that teachers responded with the highest mean average (that is, closest to 1 or Strongly Agree) to Question 35-- "reinforces the positive values that schools and teachers

strive to develop in students" (see Table 22). Question
34--"presents role models that students respect"--received
the lowest mean average (closest to Disagree) from
students.

Table 22.--ANOVA of mean scores of teachers and students
for the eight questions making up SCALE 5.

	Factor	n	Mean	SD
Question 33: Helps students understand important responsibilities				
	Teachers	150	2.3333	.642
	Students	600	2.2067	.648
Question 34: Presents role models to respect				
	Teachers	150	2.0000	.556
	Students	600	2.3933	.793
Question 35: Reinforces positive values				
	Teachers	150	1.9333	.501
	Students	600	2.0067	.575
Question 36: Helps students realize their importance as contributing members of society				
	Teachers	150	2.2600	.561
	Students	600	2.1467	.639
Question 37: Gained pride in being a U.S. citizen				
	Teachers	150	2.3267	.629
	Students	600	2.1467	.745
Question 38: Importance of good leadership				
	Teachers	150	2.1600	.580
	Students	600	2.1067	.647
Question 39: Gained understanding of future				
	Teachers	150	2.0200	.549
	Students	600	2.1333	.652
Question 40: Increases students' understanding of involvement in helping solve world problems				
	Teachers	147	2.2653	.589
	Students	600	2.0867	.675

Interaction Effects

The analyses of the data included an examination of interaction effects. The relationships between and within variable groups were the focus of the examination. ANOVA was performed to determine the differences that existed. The Scheffe post-hoc analysis was performed to view whether the differences between groups were significant. The significant interaction effects are reported by SCALE in the remainder of this chapter.

As shown in Table 23, SCALE 2 had a significant difference by teacher's age; the probability of the F-value was .0493.

Table 23.--ANOVA of teachers' age on SCALE 2: "to promote critical thinking."

Source	df	Mean Square	F-Ratio	F-Prob.
Between groups	3	.3868	2.6771	.0493
Within groups	146	.1445		
Total	149			

As the age of the teacher increased, there was more agreement with Whittle Communications' attainment of Channel One's second educational goal, "to promote critical thinking" (see Table 24). The youngest teachers

(18 to 34 years) had a mean of 2.17, whereas the most senior group (50+ years) had a mean of 1.95.

Table 24.--Results of the Scheffe post-hoc analysis of teachers by age on SCALE 2: "to promote critical thinking."

Age	Mean	Std. Dev.	No. of Cases
18-34 years	2.1681	.3312	29
35-44 years	2.1196	.4037	50
45-54 years	1.9677	.3851	58
55+ years	1.9519	.3628	13
Entire population	2.0557	.3865	150

As shown in Table 25, SCALE 2 had a significant difference by students' gender; the probability of the F-value was .0065.

Table 25.--ANOVA of students' gender on SCALE 2: "to promote critical thinking."

Source	df	Mean Square	F- Ratio	F- Prob.
Between groups	1	.9959	7.6125	.0065
Within groups	591	.1308		
Total	592			

The males disagreed more often (mean = 2.20) than the females (mean = 2.03) as to Whittle Communications'

attainment of Channel One's second educational goal--"to promote critical thinking" (see Table 26).

Table 26.--Results of the Scheffe post-hoc analysis of students by gender on SCALE 2: "to promote critical thinking."

Gender	Mean	Std. Dev.	No. of Cases
Males	2.1331	.4014	380
Teachers	2.0797	.4252	88
Students	2.1974	.3632	292
Females	2.0255	.3431	361
Teachers	2.0158	.3234	61
Students	2.0333	.3603	300
Entire population	2.0838	.3790	741

There was a significant difference of teachers by age (F-value = .0445) as teachers' perceptions differed as to Channel One's success in providing relevance and motivation for students (see Table 27).

Table 27.--ANOVA of teachers by age on SCALE 4: "to provide relevance and motivation."

Source	df	Mean Square	F-Ratio	F-Prob.
Between groups	3	.4383	2.7580	.0445
Within groups	146	.1589		
Total	149			

As the age of the teacher increased, the teacher agreed more with this goal (see Table 28). The youngest age group (18 to 34 years) had a mean of 2.34, whereas the oldest age group (55+ years) had a mean of 2.05.

Table 28.--Results of the Scheffe post-hoc analysis of teachers by age on SCALE 4: "to provide relevance and motivation."

Age	Mean	Std. Dev.	No. of Cases
18-34 years	2.3448	.4128	29
35-44 years	2.1833	.3342	50
45-54 years	2.1034	.4337	58
55+ years	2.0577	.4319	13
Entire population	2.1728	.4057	150

There was a significant difference of teachers by age (F-value = .0113) on SCALE 5--"to strengthen character and build a sense of responsibility." Results are shown in Table 29.

Table 29.--ANOVA of teachers by age on SCALE 5: "to strengthen character and build a sense of responsibility."

Source	df	Mean Square	F-Ratio	F-Prob.
Between groups	3	.6341	3.8244	.0113
Within groups	146	.1658		
Total	149			

As the age of the teacher increased, the teacher agreed more with Channel One's fifth educational goal (see Table 30). The youngest age group (18 to 34 years) had a mean of 2.35, whereas the most senior group (55+ years) had a mean of 2.03. In addition, the Scheffe range test showed that the 18-to-34-years group was significantly different from the 45-to-54-years group.

Table 30.--Results of the Scheffe post-hoc analysis of teachers by age on SCALE 5: "to strengthen character and build a sense of responsibility."

Age	Mean	Std. Dev.	No. of Cases
18-34 years	2.3534	.4796	29
35-44 years	2.1964	.3555	50
45-54 years	2.0647	.4164	58
55+ years	2.0288	.3755	13
Entire population	2.1613	.4186	150

There was a significant difference of teachers by level of education, with a p-value of .0402. The results are shown in Table 31.

Table 31.--ANOVA of teachers by level of education on
          SCALE 5: "to strengthen character and build
          a sense of responsibility."

Source	df	Mean Square	F-Ratio	F-Prob.
Between groups	1	.7316	4.2846	.0402
Within groups	146	.1708		
Total	149			

The teachers with bachelor's degrees (mean = 2.24)
disagreed more often than those with advanced degrees
(mean = 2.10) that Channel One strengthens character and
builds a sense of responsibility. These results are
presented in Table 32.

Table 32.--Results of the Scheffe post-hoc analysis of
          teachers by level of education on SCALE 5:
          "to strengthen character and build a sense of
          responsibility."

Level of Education	Mean	Std. Dev.	No. of Cases
Bachelor's degree	2.2480	.3924	62
Advanced degree	2.1055	.4276	86
Entire population	2.1652	.4178	148

There was a significant difference (.0467) of
students by gender on SCALE 5 in response to Channel One's
strengthening of character and building a sense of
responsibility. See Table 33.

Table 33.--ANOVA of students by gender on SCALE 5: "to strengthen character and build a sense of responsibility."

Source	df	Mean Square	F-Ratio	F-Prob.
Between groups	1	.6701	4.0243	.0467
Within groups	591	.1665		
Total	592			

The male students disagreed more often (F-value = 2.23) than the female students (F-value = 2.10) with Channel One's fifth educational goal--"to strengthen character and build a sense of responsibility." The results are shown in Table 34.

Table 34.--Results of the Scheffe post-hoc analysis of students by gender on SCALE 5: "to strengthen character and build a sense of responsibility."

Gender	Mean	Std. Dev.	No. of Cases
Males	2.1832	.4153	380
Teachers	2.1406	.4367	88
Students	2.2346	.3931	292
Females	2.1393	.4113	361
Teachers	2.1876	.3957	61
Students	2.1000	.4221	300
Entire population	2.1631	.4153	741

Two-Way Analysis of Variance

Two-way analysis of variance was used to examine the effects and interactions of two variables at once. Using GENDER and SURVEY (teacher or student), this analysis of variance was performed on each SCALE. This analysis included main effects for SURVEY and GENDER and an interaction term for SURVEY by GENDER. The significant interaction effects are reported by SCALE in the following pages.

The two-way analysis of SCALE 2 showed a significant difference at the .05 alpha level (see Table 35). This was due primarily to GENDER, which had a probability of .009. Thus, there was a significant difference in perceptions, by gender, concerning Whittle Communications' attainment of Channel One's second educational goal--"to promote critical thinking." Neither SURVEY nor the interaction term was significant. The overall model had a significance level of .019.

The findings for the two-way analysis of variance of the subpopulations on SCALE 2 are shown in Table 36. The males disagreed more (mean = 2.13) than the females (mean = 2.03) in their perceptions of Whittle Communications' attainment of Channel One's second educational goal--"to promote critical thinking."

Table 35.--ANOVA using GENDER and SURVEY performed on
         SCALE 2:   "to promote critical thinking."

Source	df	Mean Square	F-Ratio	F-Prob.
Main effects	2	.617	4.397	.013
SURVEY	1	.380	2.707	.101
GENDER	1	.960	6.845	.009
2-way interactions	1	.183	1.305	.254
SURVEY-GENDER	1	.183	1.305	.254
Explained	9	.472	3.366	.109
Residual	731	.140		
Total	740	.144		

Table 36.--Descriptions of subpopulations of the analysis
         of variance using GENDER and SURVEY performed
         on SCALE 2:   "to promote critical thinking."

Gender	Mean	Std. Dev.	No. of Cases
Males	2.1331	.4014	380
Teachers	2.0797	.4252	88
Students	2.1974	.3632	292
Females	2.0255	.3431	361
Teachers	2.0158	.3234	61
Students	2.0333	.3603	300
Entire population	2.0838	.3790	741

Missing cases = 9 (1.2%)

Summary

In this study, five hypotheses were developed for the purpose of statistically comparing the teachers' and

students' perceptions of Whittle Communications' attainment of Channel One's five educational goals.

A survey questionnaire was developed, which measured degrees of teachers' and students' perceptions of Whittle Communications' attainment of Channel One's five educational goals. The instrument was administered to 600 high school students and 150 high school teachers. The four possible responses were assigned the following values: Strongly Agree = 1, Agree = 2, Disagree = 3, and Strongly Disagree = 4. Mean scores on each of the five educational goals were analyzed with reliability analysis, in determining reliability of each SCALE, independent t-test, analysis of variance, and the Scheffe post-hoc test.

Results of testing the five hypotheses are summarized in the following paragraphs.

> Ho 1: There is no significant difference between students' and teachers' perceptions of Whittle Communications' attainment of Channel One's first educational goal--"to enhance cultural literacy."

The analysis of mean scores for the first hypothesis proved significant. A significant difference was found between female teachers and female students. A significant difference also was found between male teachers and male students in their perceptions involving Channel One's enhancing of cultural literacy.

<u>Ho 2</u>: There is no significant difference between students' and teachers' perceptions of Whittle Communications' attainment of Channel One's second educational goal--"to promote critical thinking."

Statistical analysis of Hypothesis 2 revealed no significant differences. Therefore, the hypothesis was not rejected. Responses to questions had mean averages equating to Agree to Strongly Agree that Channel One does promote critical thinking.

<u>Ho 3</u>: There is no significant difference between students' and teachers' perceptions of Whittle Communications' attainment of Channel One's third educational goal--"to provide a common language and shared experience."

The analysis of mean scores for the third hypothesis revealed the results to be significant. Hence, the null hypothesis was rejected. Analysis of variance revealed a significant difference between male students and male teachers. In general, teachers and students agreed that Channel One provides a common language and shared experience for its teenage audience.

<u>Ho 4</u>: There is no significant difference between students' and teachers' perceptions of Whittle Communications' attainment of Channel One's fourth educational goal--"to provide relevance and motivation."

The results of the statistical analysis revealed no significant outcomes. Hence, the null hypothesis was not rejected. The students' highest mean average (1.9333) on SCALE 4 was in response to Channel One's helping students to realize that world events happen not only to adults but also to people their own age.

<u>Ho 5</u>: There is no significant difference between students' and teachers' perceptions of Whittle Communications' attainment of Channel One's fifth educational goal--"to strengthen character and build a sense of responsibility."

No significant difference was found between students' and teachers' perceptions of Whittle Communications' attainment of Channel One's fifth educational goal.

Analysis of the data included an examination of interaction effects. The significant interaction effects included teachers by age on SCALES 2, 4, and 5. In addition, students by gender on SCALES 2, 3, and 5 and teachers by level of education on SCALE 5 were proved significant by analysis of variance. A two-way analysis using gender and survey performed on SCALE concluded the treatment of interaction effects.

A summary of the major findings and conclusions drawn from these findings are presented in Chapter V.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The purpose of this study was to provide an assessment of Whittle Communications' attainment of Channel One's five specific educational goals, as perceived by students and teachers. To accomplish this purpose, a survey questionnaire was developed from each of Whittle Communications' five educational goals. The five goals are:

1. To enhance cultural literacy by offering students news-and-information programming.

2. To promote critical thinking through careful reporting and in-depth analysis, exploring moral, social, and political issues.

3. To provide common language and shared experiences by presenting issues of common concern to young people of widely varying backgrounds.

4. To provide relevance and motivation by showing the direct connection between global news events and the everyday lives of its viewers.

5. To strengthen character and build a sense of responsibility by presenting role models that students can relate to and respect, that reinforce positive values.

The survey questionnaire, which recorded teachers' and students' perceptions of Channel One's attainment of the specific educational goals, was administered to 150 high school teachers and 600 high school students in four randomly selected high schools (representing varied incomes, racial compositions, populations, and distances from urban centers) throughout Michigan during the winter of 1992. Participants were asked to choose the response that best represented their perceptions of each of the 40 items. There were four responses to each item: Strongly Agree = 1, Agree = 2, Disagree = 3, and Strongly Disagree = 4. The four responses were used in a previous study of Channel One to analyze the effects of commercials on students.

Each of Whittle Communications' five specific educational goals was written into a null hypothesis. Each hypothesis contained eight items called a SCALE. Cronbach's test of reliability proved the reliability of each SCALE. The .05 alpha level was the criterion for statistical significance.

To gain insight into teachers' and students' perceptions, comparisons were made between teachers' and students' mean scores. The Statistical Package for the

Social Sciences (SPSS-X) was used for the statistical analyses. In accordance with an earlier study analyzing different effects of Channel One, independent-group t-tests were performed. One-way analysis of variance (ANOVA) was used to test for significant differences. Scheffe post-hoc analyses were performed to determine pairwise differences when ANOVA indicated the existence of significant differences. Two-way analyses of variance were performed to determine whether differences existed in the demographic variables common to both students and teachers.

<u>Findings</u>

<u>Hypothesis Testing</u>

Five hypotheses were tested. The significant findings for each hypothesis are presented in the following paragraphs.

> <u>Ho 1</u>: There is no significant difference between students' and teachers' perceptions of Whittle Communications' attainment of Channel One's first educational goal--"to enhance cultural literacy."

SCALE 1 proved reliable with both reliability coefficients. The analyses of the t-test results of 150 teachers and 600 students revealed significant differences at the .05 alpha level between the two groups. Hence, the null hypothesis was rejected, and it was concluded that teachers' and students' perceptions differed

significantly. The female teachers' perceptions differed significantly from female students' perceptions for the first goal. Similarly, male teachers differed significantly from male students. Analyses of variance of mean scores by item revealed mean averages to be within the Agree or Strongly Agree range.

> Ho 2: There is no significant difference between students' and teachers' perceptions of Whittle Communications' attainment of Channel One's second educational goal--"to promote critical thinking."

The computation of reliability coefficients of the multiple additive items comprising SCALE 2 proved the SCALE reliability. No significant differences were found between the perceptions of the 150 teachers and 600 students. Therefore, the null hypothesis was not rejected. An analysis of the individual items showed that all mean averages were in the Agree to Strongly Agree range. Both teachers' and students' highest mean average (closest to 1 or Strongly Agree) of the eight items was in response to Channel One reporting news and information from a teenage perspective (Question 14).

> Ho 3: There is no significant difference between students' and teachers' perceptions of Whittle Communications' attainment of Channel One's third educational goal--"to provide a common language and shared experience."

SCALE 3 tested as being reliable. The analyses of the t-tests resulted in significant differences. Hence, the null hypothesis was rejected. As on SCALE 1, the male

teachers and male students differed significantly on SCALE 3. Male teachers indicated more support for Whittle Communications' attainment of its third goal; they had a higher mean average than the teenage boys. The analysis of individual items revealed all mean averages for teachers and students to be within the Agree to Strongly Agree range.

> Ho 4: There is no significant difference between students' and teachers' perceptions of Whittle Communications' attainment of Channel One's fourth educational goal--"to provide relevance and motivation."

The alpha and standardized alpha coefficients proved SCALE 4 to be reliable. No significant difference was found between teachers and students at the .05 alpha level. Therefore, the null hypothesis was not rejected. Both students' and teachers' highest mean averages were in response to "through Channel One's presentation I have (my students have) learned that world events happen to not only adults but also to people my own (my students') age." All mean averages for both groups were in the Agree to Strongly Agree range.

> Ho 5: There is no significant difference between students' and teachers' perceptions of Whittle Communications' attainment of Channel One's fifth educational goal--"to strengthen character and build a sense of responsibility."

The analysis of reliability resulted in SCALE 5 being considered reliable. The reliability coefficients for SCALE 5 were the highest coefficients compared to the

other SCALES. The t-test results for the 150 teachers and 600 students revealed no significant differences. Hence, the null hypothesis was not rejected. Analysis of variance of mean scores for the eight items in this SCALE showed that all means were in the Agree to Strongly Agree range.

Interaction Effects

In addition to the simple effects of the hypotheses, significant differences were found when analyzing the interaction between the independent variables of teachers by age, gender, and degree held, and of students by grade level. There were significant differences of teachers by age in response to three of the five educational goals. On the second, fourth, and fifth specific educational goals, as the teachers' age increased, the teachers agreed more with the goal. In addition, the Scheffe range test revealed that teachers in the 18-to-34-years category differed significantly from teachers in the 45-to-54-years category.

Students had significant differences by gender on the second and fifth specific educational goals. The male students disagreed more often with each other than did female students.

There was a significant difference in response to the fifth educational goal of teachers by educational level.

The teachers with bachelor's degrees differed more often than those with advanced degrees.

The two-way analysis of variance showed a significant difference in responses to the second educational goal due to GENDER, which had a probability of .009. Although the analysis included the main effects for SURVEY by GENDER and an interaction term for SURVEY by GENDER, neither SURVEY by GENDER nor the interactive term was significant. However, the overall model was significant.

Although significant differences were found within groupings, all mean averages were within the Agree to Strongly Agree range. Such findings are strong evidence of Whittle Communications' success in attaining Channel One's five specific educational goals, as perceived by teachers and students.

Conclusions

The purpose of this study was to provide an assessment of Whittle Communications' attainment of Channel One's five educational goals, as perceived by teachers and students. Although the results of this research are by no means conclusive, the analysis of data did seem to project an agreement by teachers and students that Whittle Communications has been successful in attaining its five educational goals with its 12-minute

news-and-information broadcasts sent each school day to more than 9,000 schools across the United States.

Female teachers and female students differed significantly on Whittle Communications' first educational goal. There also was a significant difference between male teachers and male students. All mean averages of teachers and students were within the Agree to Strongly Agree range in response to the first educational goal. The significant differences merit further investigation. Based on the data from the research sample, it was concluded that Channel One enhances the cultural literacy of its teenage viewing audience.

No significant differences between groups were found on Whittle Communications' second educational goal. All mean averages were within the Agree to Strongly Agree range for the program's second educational goal. Based on the findings of this research, it was concluded that Channel One has promoted the critical thinking of students, as perceived by high school teachers and their students.

The male teachers and male students differed significantly in response to Whittle Communications' third specific educational goal of providing a common language and shared experiences. Male teachers had a higher mean average (or closeness to Strongly Agree) than did male students. This significant difference reflects the need

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for further study of the effect on all students of viewing Channel One. Although there was a significant difference, all mean responses were within the Agree to Strongly Agree range. Hence, it was concluded that Whittle Communications has attained Channel One's third educational goal, as perceived by teachers and students.

Based on the data from this research, Channel One provides relevance and motivation for its intended audience, millions of teenagers across the United States. There were no significant differences on the fourth educational goal for Channel One. Furthermore, the mean averages of teachers and students were within the Agree to Strongly Agree range, with strikingly similar mean averages.

No significant differences were found in the analyses of t-tests for Whittle Communications' fifth specific educational goal for Channel One. Teachers' and students' responses were within the Agree to Strongly Agree range, supporting Whittle Communications' attainment of Channel One's goal to strengthen the character and build a sense of responsibility with its teenage learners. In general, it was concluded that Whittle Communications has attained Channel One's fifth specific educational goal.

In this study, all of the significant interaction effects involved the variables of age, gender, and

education. Certain conclusions in line with the research design and findings can be drawn from the data.

In general, as the ages of the teachers increased, more agreement within the category was found. That is, the 45-to-54-years group agreed more with each other than did teachers in the younger age groups. This significant difference was ascertained on Whittle Communications' second, fourth, and fifth educational goals. The reasons for the significant differences among teachers by age remain unclear. No conclusion was drawn other than that this interaction effect needs to be the focus of further investigation.

Male students disagreed more often than their female classmates. Male students' disagreement was exemplified in responses to whether Channel One promotes their critical thinking and strengthens their character and builds a sense of responsibility within them. It is unclear why male students differed with each other more than any other variable grouping by gender. Before decisions are made involving the significant differences among male students, further studies need to investigate the phenomenon.

Teachers with bachelor's degrees disagreed more often than teachers with advanced degrees in responding to Channel One's strengthening character and building a sense of responsibility in their students. Although this

significant difference was isolated to the fifth specific educational goal, conclusions are not valid until further data on this discovery are gathered. In general, all mean averages were within the Agree to Strongly Agree range. Based on the research data, Whittle Communications has attained Channel One's fifth specific educational goal.

In retrospect, Whittle Communications' five specific educational goals were statistically analyzed, and significant differences were examined. There remain unanswered questions as to why there were significant differences among teachers by age, gender, and education and between students by gender. Correlations and conclusions of variable group differences merit further investigation.

The data for the 150 teachers and 600 students in the sample showed mean averages in the Agree to Strongly Agree range, supporting Whittle Communications' attainment of Channel One's five specific educational goals.

Recommendations for Further Study

Channel One is at the forefront of technologies that enter classrooms today. In the fewer than two years since its first broadcast, Whittle Communications has established links with more than 9,000 schools across the United States. However, too few studies have been undertaken about Channel One. Many questions remain

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unanswered. Such questions include: Do viewers of Channel One become more interested than nonviewers in world events? Does the teenage audience that views Channel One know more about news and information than nonviewers? What will be the long-range effects of viewing Channel One? Just what are the benefits, and the impediments, of the daily program that is sent into classrooms to captive audiences? Much more research into Channel One is vital. Continuous research is of paramount importance.

Technology and education need to coalesce successfully. The future of education and the future of technology should not progress in the void of each other. Students today live in a technological world that is rapidly expanding. A life of happiness and productivity for students today necessitates the integration of learning "from and about" technology in preparation for the challenges of the future.

Yet the implementation of technology into curriculum must be based on the virtues of research. As Silberman (1970) cautioned more than two decades ago, "to concede to the ramifications of educational technology is to discover cause for concern, for they pose a number of real and potentially serious dangers in American education."

Evaluations of technology affecting education need to be based on predetermined objectives. Thorough knowledge of the technology and its potential effect on the learning process must precede its implementation. Continuous evaluation of the objectives must be present. Ineffective or useless technology needs to be discarded from educational programs.

Reflections

This has been a meaningful experience in research, as well as a valuable insight into the assessment of Whittle Communications' attainment of Channel One's five educational goals, as perceived by teachers and students. The researcher has much to learn about technology affecting education. This study has led to an excitement about the future of technology and its assistance in the educational process and program. It is also apparent that a comprehensive examination of the technology affecting education must continuously be undertaken. It is vital that school children be given the best education today, for a diverse and rapidly changing world of tomorrow.

APPENDICES

APPENDIX A

CHANNEL ONE'S FIVE EDUCATIONAL GOALS

Channel One

Programming designed to address five specific educational goals:

CHANNEL ONE

TO ENHANCE CULTURAL LITERACY

Recent studies have shown that America's young people are deficient in their knowledge of world culture compared with their peers in other nations. **Channel One** helps teachers address the problem daily by offering students news-and-information programming.

TO PROMOTE CRITICAL THINKING

Through careful reporting, and in-depth analysis, **Channel One** aims to explore the moral, social, and political issues of our day.

TO PROVIDE A COMMON LANGUAGE AND SHARED EXPERIENCE

Each day, **Channel One** brings students across the country together. Issues of common concern are presented to young people of widely varying backgrounds.

TO PROVIDE RELEVANCE AND MOTIVATION

Channel One makes current events relevant by showing the direct connection between global news events and the everyday lives of its viewers. Once this connection is understood, young people may be motivated to care about current events and seek further information about the issues of the day.

TO STRENGTHEN CHARACTER AND BUILD A SENSE OF RESPONSIBILITY

By presenting role models students can relate to and respect—political leaders, athletes, scholars, and the like—**Channel One** reinforces the positive values that schools and teachers strive to develop in students.

APPENDIX B

SURVEY QUESTIONNAIRE: STUDENT VERSION

CHANNEL ONE SURVEY
••• PART A : STUDENT USAGE
Research Information

Please complete the following questions and statements. Thank You!

1. Your Grade: 2. Sex:
        8th. ( )   Male ( )
        9th. ( )   Female ( )
       10th. ( )
       11th. ( )
       12th. ( )
••

        Directions for Completing This Survey Questionnaire

There are forty statements describing Channel One programs. Read each
statement carefully. Following each statement, there are four
answers:

a. strongly agree   b. agree   c. disagree   d. strongly disagree

Take the letter of the answer that best describes your response and
place it in the blank next to the number of the statement.

Take for example the following statement:

_____1p. The United State should reduce its nuclear armament.
a. strongly agree   b. agree   c. disagree   d. strongly disagree

Take the letter of the answer that best describes your response and
place it in the blank next to the statement. If your response is
"agree", you would take the letter "b" and place it in the blank next
to the number of the statement.

        _____1. Channel One broadcasts have made me more aware of what is
happening in the world outside my community.
            a. strongly agree   b. agree   c. disagree   d. strongly disagree

        _____2. Watching Channel One has increased my understanding of the
thoughts, speech, and behaviors of people from different cultures.
            a. strongly agree   b. agree   c. disagree   d. strongly disagree

        _____3. I have gained a greater knowledge of my own culture from
watching Channel One.
            a. strongly agree   b. agree   c. disagree   d. strongly disagree

        _____4. Channel One's programs have helped me to better understand my
teachers' lessons about other cultures.
            a. strongly agree   b. agree   c. disagree   d. strongly disagree

        _____5. I have learned geographic locations and map study skills from
watching Channel One.
            a. strongly agree   b. agree   c. disagree   d. strongly disagree

        _____6. Watching Channel One's news-and-information broadcasts has
increased my knowledge of world events.
            a. strongly agree   b. agree   c. disagree   d. strongly disagree

        _____7. I have gained a greater knowledge of different cultures from
watching Channel One.
            a. strongly agree   b. agree   c. disagree   d. strongly disagree

        _____8. Watching Channel One has increased my understanding of the
importance of all people in the world cooperating with each other.
            a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____9. Channel One presents the moral, social, and political issues of our day.
    a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____10. Channel One presents news and information through careful reporting.
    a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____11. Channel One presents news and information with in-depth analysis.
    a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____12. The stories of Channel One are presented without prejudice and favoritism.
    a. strongly agree   b. agree   c. disagree   d. strohgly disagree

_____13. Differing views on the same moral, social and political issues are presented on Channel One.
    a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____14. Channel One reports news and information from a teenage perspective.
    a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____15. The reporting on Channel One challenges my views on moral, social and political issues.
    a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____16. Channel One's programs have encouraged me to form my own views on moral, social and political issues.
    a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____17. Channel One presents issues of common concern that are important to young people of widely varying backgrounds.
    a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____18. Watching Channel One has given me the knowledge I need to discuss world news with others.
    a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____19. Channel One brings students throughout the world together in sharing common concerns.
    a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____20. Channel One can be understood by young people of widely varying backgrounds.
    a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____21. Channel One helps me to visualize what I'm learning in textbooks.
    a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____22. Channel One's news and information have been discussed in class.
    a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____23. My friends and I have discussed the news and information presented on Channel One.
    a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____24. I have discussed the news and information presented on Channel One with my parents and other adults.
    a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____25. Channel One makes current events important to me by showing me a direct connection between world events and my life.
     a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____26. Watching Channel One has made me interested in world news.
     a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____27. Through Channel One presentations, I have learned that world events happen to not only adults but also people my own age.
     a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____28. Channel One presents a variety of important topics not covered in school curriculum.
     a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____29. Channel One helps me realize the importance of an excellent education in order to solve world problems.
     a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____30. Channel One has helped me to realize the importance of doing my best in school.
     a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____31. Watching Channel One has helped me to realize the positive contributions an individual can make in this world.
     a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____32. Watching Channel One has encouraged me to seek additional news and information about moral, social and political issues.
     a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____33. Viewing Channel One helps me to understand that I have important responsibilities to others.
     a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____34. Channel One presents role models that I respect.
     a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____35. Channel One reinforces the positive values that schools and teachers strive to develop in students.
     a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____36. Channel One helps me to realize the importance of my becoming a contributing member of society.
     a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____37. Through Channel One presentations, I have gained pride in being a citizen of the United States.
     a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____38. Watching Channel One has increased my realization of the importance of good leadership in this world.
     a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____39. I have gained a greater understanding of the future of the world from watching Channel One .
     a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____40. Watching Channel One programs has increased my understanding of the importance of my involvement in helping to solve world problems as I get older.
     a. strongly agree   b. agree   c. disagree   d. strongly disagree

Please use the space on this page to record your comments about
Channel One.

Thank You for Completing This Survey Questionnaire.

APPENDIX C

SURVEY QUESTIONNAIRE: TEACHER VERSION

●●

Research Information

Please complete the following questions and statements. Thank You!

1. Your Age:

18 - 24	( )
25 - 34	( )
35 - 44	( )
45 - 54	( )
55 +	( )

2. Sex:
   Male ( )
   Female ( )

3. Highest Educational Level Attained:
   Bachelor's Degree ( )
   Master's Degree ( )
   Specialist Degree ( )
   Doctoral Degree ( )

4. Present Position: _____

5. Including this year, state the number of years of professional experience you have had in the position you listed in number four.

●●●

Directions for Completing This Survey Questionnaire

There are forty statements describing Channel One programs. Read each statement carefully. Following each statement, there are four answers:

a. strongly agree b. agree c. disagree d. strongly disagree

Take the letter of the answer that best describes your response and place it in the blank next to the number of the statement.

Take for example the following statement:

_____1p. The United State should reduce its nuclear armament.
a. strongly agree b. agree c. disagree d. strongly disagree

Take the letter of the answer that best describes your response and place it in the blank next to the statement. If your response is "agree", you would take the letter "b" and place it in the blank next to the number of the statement.

_____1. Channel One broadcasts have made my students more aware of what is happening in the world outside their community.
a. strongly agree b. agree c. disagree d. strongly disagree

_____2. Watching Channel One has increased my students' understanding of the thoughts, speech, and behaviors of people from different cultures.
a. strongly agree b. agree c. disagree d. strongly disagree

_____3. My students have gained a greater knowledge of their own culture from watching Channel One.
a. strongly agree b. agree c. disagree d. strongly disagree

_____4. Channel One's programs have helped my students to better understand their teachers' lessons about other cultures.
a. strongly agree b. agree c. disagree d. strongly disagree

_____5. My students have learned geographic locations and map study skills from watching Channel One.
a. strongly agree b. agree c. disagree d. strongly disagree

_____6. Watching Channel One's news-and-information broadcasts has increased my students' knowledge of world events.
  a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____7. My students have gained a greater knowledge of different cultures from watching Channel One.
  a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____8. Watching Channel One has increased my students' understanding of the importance of all people in the world cooperating with each other.
  a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____9. Channel One presents the moral, social, and political issues of our day.
  a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____10. Channel One presents news and information through careful reporting.
  a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____11. Channel One presents news and information with in-depth analysis.
  a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____12. The stories of Channel One are presented without prejudice and favoritism.
  a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____13. Differing views on the same moral, social and political issues are presented on Channel One.
  a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____14. Channel One reports news and information from a teenage perspective.
  a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____15. The reporting on Channel One challenges my students' views on moral, social and political issues.
  a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____16. Channel One's programs have encouraged my students to form their own views on moral, social and political issues.
  a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____17. Channel One presents issues of common concern that are important to young people of widely varying backgrounds.
  a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____18. Watching Channel One has given my students the knowledge they need to discuss world news with others.
  a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____19. Channel One brings students throughout the world together in sharing common concerns.
  a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____20. Channel One can be understood by young people of widely varying backgrounds.
  a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____21. Channel One helps students to visualize what they're learning in textbooks.
  a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____22. Channel One's news and information have been discussed in class.
  a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____23. My students have discussed the news and information presented on Channel One with their friends.
a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____24. My students have discussed the news and information presented on Channel One with their parents and other adults.
a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____25. Channel One makes current events important to my students by showing them a direct connection between world events and their lives.
a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____26. Watching Channel One has made my students interested in world news.
a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____27. Through Channel One presentations, my students have learned that world events happen to not only adults but also people their own age.
a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____28. Channel One presents a variety of important topics not covered in school curriculum.
a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____29. Channel One helps my students to realize the importance of an excellent education in order to solve world problems.
a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____30. Channel One has helped my students to realize the importance of doing their best in school.
a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____31. Watching Channel One has helped my students to realize the positive contributions an individual can make in this world.
a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____32. Watching Channel One has encouraged my students to seek additional news and information about moral, social and political issues.
a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____33. Viewing Channel One helps my students to understand that they have important responsibilities to others.
a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____34. Channel One presents role models that my students respect.
a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____35. Channel One reinforces the positive values that schools and teachers strive to develop in students.
a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____36. Channel One helps students realize their importance in becoming a contributing member of society.
a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____37. Through Channel One presentations, my students have gained pride in being citizens of the United States.
a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____38. Watching Channel One has increased my students realization of the importance of good leadership in this world.
a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____39. My students have gained a greater understanding of the future of the world from watching Channel One .
a. strongly agree   b. agree   c. disagree   d. strongly disagree

_____40. Watching Channel One programs has increased my students' understanding of the importance of their involvement in helping to solve world problems as they get older.
a. strongly agree   b. agree   c. disagree   d. strongly disagree

Your comments about Channel One are encouraged. Please use the space
on this page to record your comments about Channel One.

Thank You for Completing This Survey Questionnaire.

APPENDIX D

PERSONAL COMMENTS

Personal Comments

The respondents' additional comments were encouraged. Following are comments written by students and teachers.

Students

"The commercials are too long, too many and always the same ones."

"I enjoy Channel One as much as television. Channel One does a great job. It gives me lots of information."

"Change the background music."

"I watch the news at home too."

"Channel One needs more kids doing the reporting."

"Keep up the good work, Channel One."

"It really has made me more aware of events."

"More pop quizzes, they are fun. It's cool and I like the pop quizzes."

"Show more sports."

"Make Channel One longer."

"We should continue with it."

"I would like to see more pro skateboarding."

"Show more dropouts."

"I think we shouldn't have commercials of people who dropped out of school. It's not their fault."

"It's a great way to start the day."

"I'd like to see more stories on pollution and the environment."

"Use televisions for other purposes too."

"Channel One is senseless if people watch the news [and] then come to school and see the useless things we've already watched."

"Great addition to our school."

"It's boring!"

"More stories on fashion, friends and school."

"Should tell the birthdays of famous people."

"It's the awesomest program in America."

"I like Channel One because the newspapers use long words."

"I like Kathy."

Teachers

"Most stories on Channel One are unbiased, but some have not been."

"I wish we had time with students immediately after Channel One for maximum follow-up."

"Classroom Channel, teacher and CISD videos have been used for maximum follow-up."

"Commercials to a captivated audience is unethical."

"Extremely beneficial to students and enlightening."

"The news is lively, objective, and gives many students their only exposure to regular news. I have been impressed by students' interest in daily viewing. It seems to be a positive, low-key way to start the learning process as each day begins. I feel it meets student needs."

"Channel One is full of gimmicks and gives learning a false image."

"Informative, valuable."

"Informative and current with topics given on the news programs of national interest on school-related topics."

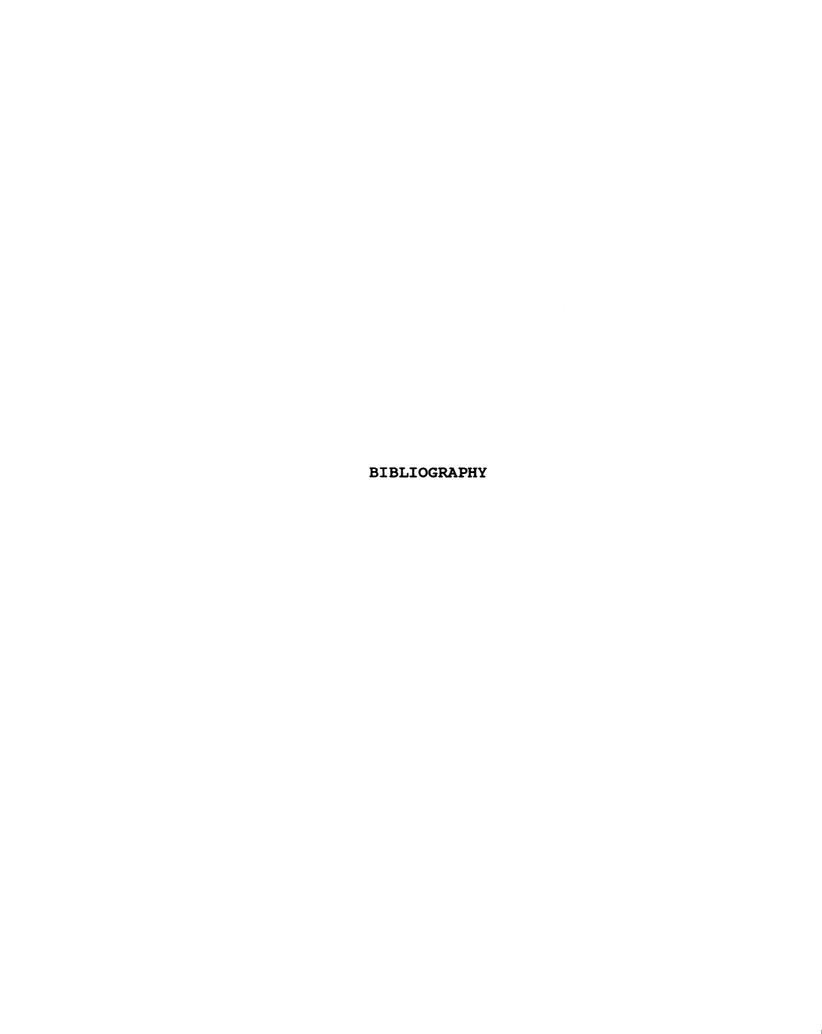"I find it to be well done and something to keep in the curriculum."

"It is a great educational tool. It appeals to our students' visual generation. Does anyone really think our students are watching CNN on their own?"

"This is a plus for our kids and curriculum."

"A useful aid and resource when teaching social studies and current events. Students see the regions of the world in the news, not just hear about them."

"Outstanding. Also, the program guide is helpful in generating discussion or writing on topics."

"I think Channel One has been useful. The coverage of the environment is good."

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