Presented is an abridgement of the Final Report on Phase I of the North Reading Screen Education Project, including chapters concerning the following: purpose, scope and procedure of the project; description and evaluations of courses, 1967-68 and 1968-69; evaluation of the students; principal investigator's commentary and assessment. Within this report broader and more general implications exist concerning the relationships of technology, society and education. The Project's experiences in North Reading indicate how the educational process must be responsive to the changing patterns of experience. The important role the students played in these changes and how the impact of the new media provided a change and process-conscious set of experiences for the student made possible a clearer and more thoroughly understood relationship of self to the environment.

In order to respond to the changes that will occur as a result of the impact of the new media, an increased level of investigation is suggested. A related document is ED 036 205. (Author/LS)
A DESCRIPTIVE REPORT

north reading screen education project

AN INVESTIGATION INTO THE PRACTICE OF SCREEN EDUCATION

(The Introduction of Films and Television into Education as an Essential Area of Study)

(PHASE I)

Anthony W. Hodgkinson
North Reading Public Schools
North Reading, Massachusetts

January, 1970

The research reported herein was performed pursuant to a grant from the Office of Education, U. S. Department of Health, Education and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

U. S. Department of Health, Education and Welfare

Office of Education, Bureau of Research
THIS REPORT IS DEDICATED TO
THE STUDENTS OF THE NORTH
READING SCHOOLS,
1964 TO 1969.
FOREWORD

During the two school years 1967-1969, the Office of Education (Bureau of Research) supported a screen education demonstration and research project in the high schools (junior and senior) of North Reading, Massachusetts.

What follows is an abridgement of the Final Report on Phase I of this project, consisting of the following chapters from that Report:

1. Purpose, Scope and Procedure of the Project
2. Descriptions and Evaluations of Courses, Year I (1967-1968)
3. Descriptions and Evaluations of Courses, Year II (1968-1969)
4. Evaluation of the Students
5. Principal Investigator's Commentary and Assessment

Omitted from this abridgement are chapters describing: the milieu for the project (chapter II); the special project undertaken in the Junior High School (chapter V); students' commentary on the project (chapter VIII). The twenty-three Appendices to the Report, which provide supporting data and details for the various chapters have also been omitted from this version.

In summary, Phase I of the Project consisted of the teaching and evaluation of four different kinds of screen education courses (Fundamentals, Film Production, Communications, and Screen and Society) at grade levels 9 through 12, and an experimental (Art and Communication) course in the Junior High School for grade 6. 419 students (approximately 25% of the annual high school student population) took part over the years. All were self selected, and tests showed that, in general, they were significantly less than average in intellectual and academic ability and in those areas of self-knowledge that relate to performance and achievement.

Evaluation of the project concentrated on discovering how screen education affected students' self-knowledge, self-awareness and general attitudes to school and life. Four major instruments were used:

1. student questionnaires
2. classroom observations
3. student interviews
4. a student self-assessment system

In general, screen education was regarded by students and concerned faculty as a worthwhile and significant addition to the curriculum. Its principles and methods were propagated through 115 visits made to the school; 167 formal requests for information; and 18 news items and publications derived from the Project. In addition, a film documentary of the Project was prepared by WGBH television. (Further propagation of information, of course, continues.)

All classes indicated a development of students' basic skills in communication areas, and increasingly discriminating visual and aural
perceptions. Moreover, there is statistical evidence to suggest that, in two out of the three grades tested the students' overall self-awareness was significantly improved, and that this aspect of the Project deserves further investigation.

Several methods of teaching and organizing classes were employed and are described, and the materials and equipment used are listed and assessed in the Full Report. One of the Project's aims was to ensure the continuance of research into, and discussion of, screen education work on a national and international scale. It is hoped that the publication of this descriptive report will substantially aid this.

To obtain the complete report - consult Research in Education for the Report number and directions for the purchase of copies. The report will be listed as follows: AN INVESTIGATION INTO THE PRACTICE OF SCREEN EDUCATION; and will most probably be listed under a media sub-heading.

Anthony W. Hodgkinson
January, 1970
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CHAPTER I

PURPOSE, SCOPE, AND PROCEDURE OF THE PROJECT

Screen Education: A Developing Philosophy

The simplest definition of screen education is "teaching children, in relation to the screen."1 Here, the term "screen" is employed to embrace both films and television, the assumption being that in the projection of moving images on a screen, accompanied by sounds, we have a definable mode of communication comparable to the modes of print, speech, photography, etc. The comma in the definition after the word "children" is an attempt to emphasize (a) that it is the students who are to be regarded as more important than the "subject," and (b) that screen education is to be regarded more as a student-centered approach to education than as a body of subject matter to be inculcated in traditional forms.

Arising from a mixture of educational motives in the years immediately following World War II, the screen education movement has been unusually sensitive to, and affected by, developing social, educational, and communication theories.2 In its attempt to adapt itself to the continuously-changing nature of films and TV, society's response to, and use of, them, and the revolution in education occasioned by the screen and other media,3 screen education has increasingly turned away from set methods of instruction in data (history of film, technique, study of screen classics, etc.) and today pursues more closely than ever the setting-up in the classroom of a relatively free activity situation, in which a film or TV program (one might almost suggest any film or TV program) is made the stimulus for communication, creation, and self-discovery.

Thus, the theories and advocacies of a number of authorities in varied fields (for example, Jean Piaget, Herbert Read, Marshall McLuhan, Carl Rogers, and Edgar Z. Friedenberg) acquire fresh meaning when they are related to the teaching of the screen media and provide continuing justification for screen educators to avoid attempting to establish narrow methodologies for what is increasingly less a "subject," more an ambitious concern to reexamine education in terms of today and tomorrow.


3 See, for example, McLuhan and numerous other contemporary writers.
The Problem to be Investigated

Since the turn of the century, when the cinema first established itself as a popular art, thoughtful persons both inside and outside the educational field have been concerned about its effects on children and immature people and, ultimately, upon our society. With the advent of television and the increase of other forms of mass entertainment and communication (comic books, paperbacks, radio, pop records, etc.), such concern has both deepened and widened.\footnote{See, for example, Schramm, 1957; Klapper, 1960; Miller, 1963; and Hall and Whannel, 1964.}

Action taken has tended to fall into three categories: prohibitory measures (censorship, parental restrictions, etc.); inoculation against the bad (information to parents and educators, film appreciation activities, etc.); and scientific research.

Research has been hampered by lack of financial and other resources and, indeed, by lack of purpose, although individual studies have produced evidence of interest illustrating, almost beyond dispute, the fact that the mass media exert a powerful influence on children and young people.\footnote{See, for example, Bandura, 1963; Belson, 1958; and Himmelweit et al, 1958.}

A valuable part of screen education is the opportunity it affords children and young people to express their own creative ideas, both individually and in groups. Finding themselves concerned with a medium in which they are already deeply interested, and to which they naturally respond, most children experience a release from the inhibitions which they frequently feel when studying under the conditions imposed in more traditional subject-areas. Once assured that the teacher shares their enthusiasm and respects their views, they express themselves vividly in numerous ways--orally, in writing and drawing, and in the film medium itself.

The problem under investigation thus resolved itself into three basic queries:

1. Could a unique screen education program be designed and demonstrated in a public school system of the United States?

2. Could students participating in such a program be affected in any measurable degree?

3. Could such a program provide the opportunities for observers and visitors to attend lesson sessions, watch the development of the students and their work, and to discuss and evaluate it with them and the project staff?

Although there has accumulated, especially in the past decade, a great deal of literature and some films descriptive of various lessons and courses in screen education in the United States, Canada, Europe, and Australia, opportunities have been very few for the kind of continuous, day-to-day, integrated teaching in a public school situation which
Moreover, the Project was able to do what other school screen education projects have not—provide a continuous opportunity for observers and visitors to attend lesson sessions, watch the development of the students and their work, and to discuss and evaluate it with them and the project staff.

**Objectives of the Study**

The objectives of the study were as follows:

1. To provide screen education for the selected children of North Reading, Massachusetts.

2. To familiarize educators with the principles and methods of screen education, by observing it actually taking place.

3. To evaluate the efficacy of screen education methods in developing:
   a. creative work in all forms of communications;
   b. discriminating consumers of popular art.

4. To determine which methods of screen education are most likely to produce the above results.

5. To ensure the continuance of research into, and discussion of, screen education work on a national and international scale.

**The Selection of the Site**

The North Reading Public School System, North Reading, Massachusetts was chosen as the site of the screen education project. The following criteria were used in the selection process:

1. Eagerness and willingness of the school system and the community to cooperate fully with the project.

2. Control made possible by limiting study to a prescribed community and school.

3. Facilities available, which included rooms for film viewing, small group discussion, work areas for creative activity, and equipment for film production.

The Project was designed to operate during the academic years 1967-1968 and 1968-1969.

**Selection of the Screen Education Students for Years I and II**

It was decided jointly by the project staff and the school administrators that screen education courses would be offered for English and

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social studies credit, depending upon the content. A range of courses covering grades nine to twelve were designed. Since the High School offered an all-elective program in English and social studies at the levels concerning screen education, it became clear that the students would be self-selected in that they would elect screen education courses as part of their total program.

A presentation was designed by the site director and was given to all eligible students. This presentation was in the form of a "Media Environment," which was then discussed and commented upon in relation to the courses to be offered. Written information was also given to students, faculty, and guidance personnel.

The actual process of choosing was done by the students in consultation with the faculty and with the guidance personnel. As screen education had been primarily confined to nonacademic students in the years prior to the beginning of the Project (the course had been conducted by the Project Director within the English curriculum), the majority of those involved in the choosing process tended to regard the courses to be offered as being directed particularly at the nonacademic students, despite strong objections and recommendations from the Project Director. There was also considerable concern that such courses would not be accepted by colleges and other institutions. The result of these factors was a noticeable bias in the final course enrollments toward the average, or below-average ability, students. This bias persisted into the second year.

Year II (1968-69)

Basically the same process was followed for Year II but without the need for a special presentation. In addition, the new tenth-grade course became a requisite for further courses in the eleventh and twelfth grades.

All courses in English and in social studies were now offered on an elective basis, with some distribution requirement, in grades ten to twelve; all project (screen education) courses were offered at these levels. Thus, in the second year of the Project, the screen education courses were competing with a large number of electives.

Good publicity, both external and internal, created new interest in the courses.

Control Groups

Control groups were selected by random sampling from those students not in screen education courses at each grade level. In these groups, all students were asked if they would cooperate to help the Project obtain its research data. Any student who did not want to do so was excused and another student located.

The Design of the Courses

All the courses offered during the Project were conceived and designed so as to explore the following objectives set out in the original proposal:

"To demonstrate teaching methods whereby children may be assisted to develop appreciation and understanding of films and television, and
(by extension) other popular arts; to investigate how such teaching can (a) increase discrimination in regard to the mass media, (b) provide new opportunities for children to demonstrate their creativity, and (c) ascertain how screen education can be related to other, more traditional, areas of education.

"The attempt will be made to discover what type of course is most efficacious for children of varying grades, stages of development--both intellectual and emotional."

These objectives provide the framework through which the problems of discovering, recording, and disseminating knowledge about the methods of teaching screen education could be attempted and described.

The rationale for the design of the courses was drawn, in part, from the experience of the Project Director during three years of teaching at North Reading and attempting to introduce screen education on a limited scale at several grade levels. Other experience, in Europe and elsewhere, also provided possible models and patterns.

It was decided on the bases of both experience and data to approach our objectives in four main ways:

1. To teach screen education together with traditional English skills and subject matter. This approach would, we believed, take care of the concern that younger students (ninth grade) should not neglect their English studies and introduce the ideas of screen education on a basic level, using more traditional verbal skills as a supportive aid to the student and the teacher.

2. To teach film production to those students who were interested in such a skill and to provide this as an opportunity for the less verbal student to achieve success in communicating where his previous attempts and experience had proven to be unrewarding, if not destructive of his self-confidence.

3. To teach about the media and to seek to understand how they operate and perform best. This aspect presumed the student to have already developed adequate skills and understandings in the verbal area; and so it was developed for the older high-school student.

4. To demonstrate that the media could provide opportunities to approach social questions in a way that provided more immediacy, relevancy, and involvement than the more traditional courses offered in the social studies area. The use of film and television and other media can provide for the student direct and concrete examples from which more general observations may be made. Parallels between the students' experience and environment can be clearly demonstrated in this way and often made actual in a student-produced film, interview, etc.

These four approaches provided the framework for four courses:

1. Fundamentals of Film, ninth grade;
2. Film Production, tenth grade;
3. Communications, eleventh grade;
4. Screen and Society, twelfth grade.

Courses 1, 3, and 4 were designed to have a reasonable balance of activities--reading, writing, viewing, discussing, and project work involving media production. The emphasis was to be on the teacher as a skilled and knowledgeable advisor and leader and on large group, small group, and individual work by the students. A curriculum as such was
not written, but rather a series of open-ended units were created. These units were then modified, or radically changed, by the Project Staff as the courses progressed; the changes were based on the observations of the whole staff and on the students' observations, reactions, and performance.

In the light of the first year's experience of teaching these courses, modifications were made according to the following rationale:

The amount of production work done in all the courses increased beyond the original design. This work was most successful in reaching our stated objectives.

The attempts to relate screen education to other, more traditional areas of education were largely unsuccessful as conceived. It was clear that the success of exploring the media through their own means of production and well-executed, relevant, exciting examples meant that we should use such activities as a primary base and then move into the other areas of education. Thus, only after a good understanding and experience of the skills and structural processes of the media had been given the student, would it be possible to relate other areas and disciplines.

Accordingly, every course in the second year began with a period of time devoted to understanding the tools to be used. In addition, the Fundamentals of Film course was scrapped, and a new course was introduced at the tenth-grade level called Screen Fundamentals. It was a requisite for the other courses offered at subsequent levels and confined itself to a thorough, practical examination of the structures and processes of the media and of the associated verbal skills and knowledge needed.

The remaining courses were redesigned to have a heavier production emphasis and to contain a more equal balance between examination of the work of others and the students' own projects. These changes again reflected our finding that direct involvement with the media provided the best way of evolving a conscious and knowledgeable attitude toward the media and their actuality within and without the classroom.

Complete details and evaluations of the course designs are given in subsequent chapters.

Methodology of Evaluation

The objectives of the Project deliberately did not include the production of firm, final scientific "proofs" of the virtues of screen education. Too many factors, each difficult to define precisely, are involved; even the "goals," in common with the goals of education itself, are various and open to endless argument. William Kuhns, in an excellent analysis of "The Goals of Film Study," says:

The problem with orientation of goals in film study is not that there are none; quite the opposite--there are almost too many possible goals from which to choose ... Indeed, it may be that film study will flourish when the teacher is not dominated by too clear, too emphatic an approach. Highly-defined goals have a way of inhibiting the more creative approaches taken to achieve them ...

A goal ... is important, but more as a starting point than as an expected result ... I personally believe that the best efforts in film study accrue from an amalgam of the
various approaches . . .

In an attempt to maintain this flexibility in the North Reading project, the investigator jotted down, and circulated to the Project personnel at its inception, the following, wide "questions to be borne in the mind," drawn from some of the claims which he and others make for screen education:

"1. Does a course of Screen Education develop in children:
   (a) 'better' discrimination in respect to films and TV?
   (b) 'better' discrimination in respect to other forms of mass media?
   (c) 'better' attitudes towards sex, crime, violence ('citizenship')?
   (d) 'better' creativity' (in screen media, in writing, speaking, self-expression, drawing)?
   (e) 'better' understanding of artists' problems?
   (f) 'better' ability to respond, and articulate response, to art (screen, other)?
   (g) 'better' attitudes towards other students, teachers, parents?
   (h) greater self-confidence (knowledge of self)?
   (i) greater knowledge of facts imparted in other subjects"
   (j) 'awareness' (perceptivity, sensitivity, etc.)?

"2. What general methods of Screen Education best achieve the above, or specific, goals?
   (a) Screening of full-length films -- with or without discussion?
   (b) Screening of short films -- with or without discussion?
   (c) Screening of extracts from films -- with or without discussion?
   (d) Viewing of TV programs -- with or without discussion (with or without teacher)?
   (e) Learning 'facts' about films, TV -- what facts?
   (f) Analysis of films -- content, form (both combined)?
   (g) Discussion without film, TV illustration (local cinemas, etc.)?
   "(h) Film (closed cir. TV) production?

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"3. What type of child benefits most?"

"(Age, sex I.Q. ability, emotional make-up, background, etc.)"

Notable is the number of times inverted commas are used to emphasize debatable or indefinable terms—especially "better." How does one define or measure, for example, "better creativity"?

During the two years of the Project, a great deal of thought and discussion on the part of all the Project personnel took place, centering on these questions. As a result, it was agreed that a central aim of the Project work should be to aid students to develop their self-knowledge, or self-awareness. It was, or is, recognized that such a goal is extremely difficult to define and may, in fact, be defined in a variety of ways, depending upon which school of thought is followed. Several other subsidiary areas were marked out for observation and investigation, as will be noted, but considerable emphasis was placed on the "self-awareness" aspect, in the hope that later and more sophisticated investigators will direct their attention to it.

A further problem for both teaching and evaluation, is increasingly raised in current screen education practice and, again, is well described by Kuhns:

A deep bias pervades Western education, a bias which holds that a man is equipped to grapple with the world and his experiences of the world insofar as he can think clearly and logically (in words, of course), speak articulately, and understand what others are saying. Verbal understanding and verbal modes of thought have been important bases for Western civilization, but whether they alone can serve to educate is a moot question . . . .

Possibly more important than the presence of this bias, however, is the incalculable potential it may be discouraging . . . . Education has never explored, on any really vast level, the potential for developing non-verbal (and non-mathematical) modes of thought. Yet the preponderance of visual images surrounding students today give rise to the question whether there might not, after all, be ways of thinking and understanding which could only be expressed visually—or translated into cruder, verbal terms.

The investigator, and probably all who read this report, share the verbal/logical bias described by Kuhns. (Indeed, the very existence of this written report, incapable of including within itself the screen and other modal expressions of the North Reading students, proves this.) "Evaluation" itself must be couched in logical, verbal, or mathematical forms; yet, it may be their very antithesis that we are attempting to cope with. It is well to bear this very much in mind in considering what follows.

At somewhat short notice, due to the last-minute failure of the educational psychologist originally proposed to aid the Project, Mr. John Cloninger was appointed Research Director and was presented with the task of observing and evaluating what transpired. He was deliberately chosen for his initial lack of knowledge of, or involvement in, screen education practice or philosophy, since it was felt most

9Ibid.
desirable that an objective, "outside" observer should cope with the task.

During the first year of the Project, several methods and instruments for evaluation were initially tested and refined. It was decided that, during the Project's second year, these should be reduced to four, as follows:

1. **Student Evaluation Questionnaire (SEQ):** Designed primarily to explore students' reactions to the Project courses, this was revised in cooperation with students themselves and applied comprehensively in all three courses taught in the senior high school during 1968-69.

2. **Classroom Observations:** From the second semester of 1967-68 onwards, regular, but randomly-timed, observations of lessons were made by the Research staff and by the investigator.

3. **Student Interviews:** Throughout the Project, both systematized and informal interviews were conducted with students by the Research staff. Some quotations are provided in Chapter VI.

4. **Student Self-knowledge Scale (SSS):** As a preliminary attempt to explore the value of screen education in increasing students' self-knowledge, an instrument was designed to enable students to describe their own personality traits, in a form which could be compared with standardized test results.

In addition to the above, formal and informal attempts were made during the Project's first year to secure the opinions of the Project staff and other faculty. In general, these were inconclusive, and this procedure was not followed through in the second year.
CHAPTER III
SCREEN EDUCATION COURSES: DESCRIPTIONS AND EVALUATIONS FOR YEAR I (1967-68)

Introduction

The first year's course plans were prepared before it was certain that the Project would be funded and before teachers were finally appointed. These plans were, in effect, "educated guesses" as to what might be attempted in each grade, based on both the local experience of Mr. David Powell (who had taught in North Reading for three years previously) and on the more generalized experience of the investigator. Neither Mr. Powell nor the investigator were able to take into account the individual propensities of the students or the teachers other than Mr. Powell, nor could it be certain that suitable films would be available because of late bookings. (The latter eventuality did, indeed, arise.) It was well understood that the course plans would be subject to considerable modification, and, as will be seen, a number of adaptations were later made.

Screen Education Courses: Descriptions

Fundamentals of Film: Ninth Grade

The intention of this course was, very largely, to provide the students with a clear understanding of film as a "language," having its own vocabulary, syntactical conventions, etc., comparable to the English verbal language. It was designed to grow out of a close study of the nature of the film medium and related literary forms and was correlated with the English curriculum.

Major areas

Film: A visual medium; the physics.
Film language: How, and what, to analyze.
Film: Its beginnings.
Film: How you communicate.
Film and literary forms:
(1) Poetry--the short experimental film;
(2) Essay--the documentary and television material;
(3) Novel and Short Story--feature films and shorter subjects;
(4) Drama--film and the actor.

Film and the production team: Stressing the role of the director (film as a personal statement).

Practical work

Study of related novels, etc.

Written work of all kinds, both about the forms (reviews, reports, etc.) and in the forms themselves.
Analysis and discussion of films.

Film diaries and logs to be kept.

Group production of a short silent film in 8mm.

Since this course was correlated with the English curriculum, it seemed necessary to attempt to include within it certain elements of that curriculum, hence, the emphasis on "literary forms," written work, etc. Nevertheless, it is likely that most of the students who elected, or who were placed in, this course tended to regard it as an "easier option" than regular English courses.

Two sections were to be taught, by two different teachers. Fifty students were involved, meeting four times a week for periods of 52 minutes.

Film Production: Tenth Grade

Planned originally as two separate semester courses, this became one year-long course, catering to about fifteen students drawn on a volunteer basis from the tenth, eleventh, and twelfth grades and taught by Mr. Powell four times a week in 52-minute periods. The aim of this course was to give each student the maximum opportunity to express himself in film and to become capable of handling ideas in filmic terms through script writing and production.

Major areas

Viewing of short films, particularly those made by children.

Improvized production in 8mm.

Analysis of the film language--simple and pragmatic.

Production after scripting of short 8mm films, both by groups and individuals; use of taped tracks.

Production of a short 16mm film by the group.

Practical work

All the above work is practical.

Communications: Eleventh Grade

This course was planned with the particular intent of appealing to this age group's growing awareness of the institutions of society outside the school. It examined the forms of film, television, radio, press, advertising, and other media. In each case, it was focused on the structure and product of the industries involved and was correlated with the English curriculum.

Major areas

Each communication form.

Study of contemporary novels and books relating to the media (for example, The Hidden Persuaders and Only You, Dick Daring).
Study of writing on the media in newspapers and magazines (for example, the Communications section in Saturday Review).

Study of a major figure from each industry (for example, Orson Welles, William Randolph Hearst, Edward R. Murrow, and Joseph E. Levine).

Practical Work

Production of:
(1) A newspaper (all stages, with use of school press);
(2) A radio program (school radio);
(3) A TV report or profile (closed circuit);
(4) A film script for a short film;
(5) A television-viewing survey; its design and execution.

(Other faculty help was involved.)

Again, because of the correlation with English, emphasis was initially placed on literary study ("novels and books," etc.), and, again, similar considerations probably applied for the students involved as was the case for the ninth-grade course.

Two sections were taught, by two different teachers. Fifty-two students met four times a week in 52-minute periods.

Screen and Society: Twelfth Grade

As the original course outline, below, indicates, particular emphasis was planned to be placed on contemporary issues, especially since the majority of the students involved were not expected to go on to college, and this would have been the one opportunity to discuss such issues in a controlled atmosphere where information was available and where opinions could be expressed in an orderly manner.

The course focused on both current and recurrent problems as faced by society and on their relation to the life of the young adult, in terms of their treatment in outstanding feature films, and was correlated with the social studies curriculum.

Major areas

The Individual and Society: David and Lisa.
Race and Society: Nothing But a Man.
Teenage Revolt or Conformity: Nobody Waved Goodbye; The Loneliness of the Long-distance Runner.
The Law: Bad Day at Black Rock.
Politics: The Great McGinty.
The Mass Media: Sunset Boulevard; A Face in the Crowd.
Other Societies and Cultures:  A Generation; World of Apu.
War and Peace:  Dr. Strangelove; Paths of Glory.
Practical work:
Close study of contemporary questions as dealt with in the media (especially newspapers and television).
Written work in the forms of essays, articles, and reports of studies.
A study of the images of teenage society, resulting in a report (written and/or taped).
A study of one major area selected on the basis of interest.
(Readings from contemporary novels and other books were used, for example, Film and Society, by Richard Dyer MacCann. The films rented for this course also provided the basis for an all-school film program.)

Probably because of the hope of "seeing movies," this course was heavily overenrolled, and, in fact, three sections were necessary. An additional teacher, drawn from the social studies department, conducted his own course on the films screened.

Screen Education Courses:  Evaluations
Introduction

As will be apparent, the following descriptions of the first year's courses were written at the end of the academic year 1967-68. The "interim assessments" of each course were also written then and have been retained substantially in the same form as indications of the ways in which the second year's work was shaped.

Fundamentals of Film: Ninth Grade

The first section of this course suffered to a certain extent from a change of teacher halfway through the year, as did the first sections of Communications and Screen and Society. The second section was taught throughout by Miss Carley. Although the approaches of the individual teachers varied, the general pattern of the course was the same. Due to Miss Carley's experience and orientation, however, it is likely that the second section had more concentration on traditional English areas of reading and writing.

Attempts were made at the outset to instruct the students in a simple, formal outline of the elements of the screen language, using available films--both feature-length and short--as illustrations. Generally, and perhaps because the teachers themselves were neophytes in this area, this approach was not effective. The students were more involved in the content of the films than in their form, and, since a large proportion of these films were of a different nature from those they had up to then experienced in classrooms or on television, they became understandably confused. Their disturbance was probably increased by the novelty not only of the subject matter but of the informal way in which they were being taught. Their powers of self-discipline and group organization were being challenged by the relaxed classroom atmosphere, but
the lesson material was insufficiently practical to encourage their involvement.

For a time, attempts were made to provide examples of stories and poems on the one hand and films on the other, from which it was hoped students would draw comparisons and contrasts. Again, this seemed to be too ambitious for this stage, but gradually some interesting techniques were discovered which produced results from some students. For example, Frost's poem "Stopping by Woods on a Snowy Evening" was used not only as a comprehension test in the classic form (for example, "describe the writer . . . his horse . . . the weather . . .,” etc.) but also as a springboard into film-scripting ("If you were going to film this poem, how would you begin it? Draw your scenes and label the camera shots," etc.). Japanese haiku were used as stimuli to drawing the "mental pictures" they evoked as shots in a film, and an action sequence from a book was considered in terms of its practical filming.

Generally speaking, however, the progression from reading print to conceiving visual equivalents, and even the reverse (writing about images presented in films, photographs, and drawings), failed to engage the majority of these students, who were clearly antipathetic to both reading and writing assignments and who clamored for more "practical" means to express themselves.

Gradually, the attempt to continue a close correlation with more formal English lessons was abandoned. More and more equipment (cameras, slides, tape recorders, etc.) was brought into the classroom, and the teachers began to use them coexperimentally with the children. Among the more successful devices developed, the following are perhaps worthy of note:

1. Magazine advertisements are folded several ways so that, as they are successively unfolded, new elements of the "narrative" or of the total impact are revealed. This raises questions of picture-composition and of the use of the "frame." Comic strips can be similarly studied.

2. Slides can be prepared, one to a student, to convey a certain mood or situation. Then, the student is required to make a series of three slides covering the same subject. This encourages attention to significant detail and breaks down the "long-shot syndrome"--the very common tendency to stay too far away from a subject.

3. For familiarization with the tape recorder, the teacher takes the recorder out of the room and begins dictating a story. Returning, he hands a student the last sentence of his opening. The student is then required to leave the room and to continue dictating; this procedure is repeated with the next student, and so on. The complete tape is then played to the class.

4. Particularly valuable in many ways are the Photo Discovery Sets developed by Eastman Kodak Company during the course of the Project. They can provide a helpful aid to the understanding of film editing, for example, especially if the students are encouraged to arrange the pictures vertically as well as horizontally.

Many of these, and other, activities were used as well in the Communications course, which also began to develop an increasingly practical basis. It was clear that, for all students, "learning by doing" produced a much greater degree of involvement and, most particularly, pride in accomplishment, than merely receiving and regurgitating secondhand information.
Towards the end of the course, both sections were involved in 8mm narrative film production on a reasonably ambitious scale. They had been led to this by group preparation of narrative slide sequences. The students then translated their narrative ideas into well-planned films. One example, "Foiled Revenge" (by Miss Carley's class), is available on Super-8. It shows a bored class bombarding the teacher with balls of foil and then shows the teacher turning the tables by returning their fire.

Interim assessment

As indicated above, experiences in the first part of the year seem to prove that attempts at formal instruction in "film language," etc., are unlikely to be successful until after the students have had practical experience in the mode.

Most effective in providing these experiences are "playway" methods--devising activities that take the form of games. However, the teacher must be prepared for a transitional period of uncertainty on the part of students faced with what may seem to them to be "disorganized" lessons, in which formality is deemphasized; it is vital that the teacher makes clear the limits of his/her relaxed control. Children must not feel that "anything goes," nor, indeed, can anything constructive come from such an attitude.

It would seem that a natural progression in terms of self-expression in pictorial media may well be followed in a series of exercises along the following lines:

1. Portraits of self;
2. Portraits of others in the class;
3. Studies of the class as a whole, leading to narrative incidents involving both people and environments;
4. Studies of the school;
5. Studies of the community; these areas may not be reached until later grades;

(Still and movie cameras, drawings, tapes, and written work may all be used.)

Attention should be directed to the manner in which people reveal themselves by their attributes--facial expressions, clothes, movements, speech, etc.

Print modes (reading and writing) will, of necessity, have to be de-emphasized at this stage, since most students have learned to distrust them. These can be reintroduced in a more balanced fashion when students can see that they form only part of man's expressive modes. Of interest in this connection is a small informal experiment undertaken in May 1968 when Miss Carley and another teacher, Mrs. A. K. Metzger (of freshman English), exchanged classes for three days. Students' written reactions to this experiment were evaluated by Mr. Cloninger (the Project's Research Director); it would seem clear that the screen education class were at least comparable to the English class in their writing skills.
An important element of student self-expression—the fantasizing of anti-authority feeling—came to light during these classes; in a special article, the investigator has attempted to record and dissect exactly how this operated in the case of a slide sequence planned by Miss Carley's section.

Film Production: Tenth Grade

Mr. Powell, the Project Director, taught this course throughout the year and provided the following personal account and interim assessment:

"In the beginning of the year, the Film Production class consisted of some fifteen boys. As the year progressed, two boys left school and another dropped out.

"Within a few days of the opening of school, each of the fifteen boys had shot some 10 feet of Super-8 color film. This preliminary exercise was designed to give the students immediate experience in film-shooting. Each boy was instructed to select some simple, brief action and to film it so as to reveal its 'visual' possibilities.

"The course continued with the viewing of these first exercises and with the introduction of the concept of a screen language via examples drawn from an old documentary film. A period of some two weeks was spent examining screen language. Then, the class was divided into groups of two, each of which was made responsible for filming another simple action in a series of two-to-four shots. Both students were to handle the cameras so that the incident was repeated twice. This worked variously, according to the groups of students. Some ignored the instructions and spent most of their footage on candid shots of one another. When their footage came to be edited, it was clear that some people had possible material for editing, whereas others could do little with their footage. Editing proved to be a nerve-wracking operation for some, particularly the mechanics of splicing 'end A' to 'head B' in the right sequence.

"The group then watched a series of films of various kinds, ranging from straightforward narrative to highly-specialized documentary. They discussed the films and learned how to look critically and analytically at the ways in which the screen language was used to achieve either story or exposition. Perhaps too much time was spent on this, for, when it came time to start a new film, the group had lost some of its initial enthusiasm.

"There now came a strained period during which several individuals went off and filmed various activities around the school, such as football rallies, etc., but no group emerged with any ideas for a short narrative of some kind. Finally, I suggested that we experiment with making a film in the classroom without a script or, rather, with a script being compiled as we went along. The resulting film was quite interesting and provided the much-needed experience in editing for a small group of students. During this time, a second group took it upon themselves to edit the football rally footage, while a third group worked with one boy who had come up with a particular idea.

"This idea was for an impressionistic view of a pop group performing a number of songs. After several delays and difficulties, it was finally filmed in the North Reading High School auditorium, with three

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cameramen working at the same time. This produced some 200 feet of film, which was then edited by the student who had been the originator of the idea. It became clear that this was an individual project and that the editing process had to be left entirely in his hands. The film underwent a number of changes, particularly in relation to its music track. The original idea of using the music of the group itself was shelved, and, finally, a rather unsatisfactory commercial track was used.

"Editing and discussing, again, tended to drag on for too long, and it became obvious that we possessed too little editing equipment. New equipment was purchased but not before several of the group had expressed their frustration at having to wait in line.

"Other films were screened during this period, mainly short films in use by other classes. A number of student-made films were also shown, and these proved to be extremely successful. On reflection, even more of these films should have been shown to the group, rather than the large number of professionally-made films. Two extracts from High Noon and North by Northwest proved to be particularly useful during this period of editing, as it was possible to make comparisons between the problems faced by some of the group and those solved by Zinnemann and Hitchcock in their films.

"Two feature films were shown during the first half of the year: All Quiet on the Western Front, and The War of the Worlds. Both films provided much discussion material, but their value would be questionable in future courses of this kind, as they did not really relate to the course itself.

"A number of visitors came to the class, two of whom brought with them films made by their students. Some Project students were clearly excited by the films and the visitors, whereas others seemed to feel that, since both films were in 16mm, we were talking about possibilities that they were then unable to realize themselves. However, the overall value of these sessions was clear; it was also clear that more visitors could have been invited, especially film-makers themselves where possible.

"The new semester brought about a slight change in the composition of the class. Two of the students had left school, and two more joined the class. It was fairly easy to bring these students up to something near the level of competence of the others in the group by including them in group activities, etc.

"A number of projects in Super-8 emerged. One boy decided to make a film together with a tape to provide some impression of the school and its community for the benefit of a hospital-bound basketball player (for whom there exists a charitable fund in the school). This project was undertaken from start to finish by the individual himself. He was a slow somewhat timid worker, who dragged the project and who tended to withdraw himself from the class group in order to finish it.

"Another group of boys worked together on editing some previously-shot footage of cheerleading, etc. This gave them some needed experience in editing footage that had no particular thematic connection within the material. Another boy worked on a similar project involving a vaguely documentary approach to a girls' gymnastics competition. This was his first real exercise with the camera, and, since he clearly needed more footage than the usual first exercise demands, he shot one 50-foot roll of Super-8 (approximately three minutes).

"Another boy requested 100 feet of film to shoot a draft-resistance rally at the Boston Common. This posed a number of problems concerning
leave of absence from school and involvement in such a group. However, since it was an original idea and since it would have damaged his enthusiasm and growing confidence to be refused, the project was encouraged. The results can be seen to be a pleasing record of what was clearly, for this boy, a fascinating and stimulating day.

"Another student became extremely interested in this particular film both during the planning and when the rushes were returned, and he then undertook to edit it. It seemed that both students gained strength and confidence from each other and benefitted from the exchange of ideas concerning the editing process.

"At this point, it seemed right to move into using 16mm black-and-white silent format. In order to do this, a week was spent carefully explaining the camera and the light meter and the way in which these two pieces of equipment were used together. I insisted that they take careful and full notes concerning the sequence of operations necessary to obtain a correctly-exposed, in-focus shot. Despite much protest at the time, this precaution was subsequently valued by them, as, on several occasions, they asked to get their notebooks to check some step in the procedure.

"I then asked the boys to team up in pairs and to give me an idea for a very simple exercise with 16mm. (The primary purpose was to have them use all the lenses, if possible, thereby having a number of shots that required fairly careful editing together.) Developing simple ideas for such an exercise proved to be very difficult. Most of the suggestions made were either simple jokes or situations impossible to stage in the circumstances. Finally, most of the ideas that were filmed came from suggestions that I myself had thrown out. As a result of this, I insisted that the groups develop them quite a bit before they filmed. All this took several days, and the pace of the class slowed down rather badly. In order to keep their eyes on the eventual goal, I took to bringing in the camera, tripod, and lights every day.

"The shooting of the exercises became an interesting piece of group interaction. There was a great deal of nervousness about who would be first, and, finally, two of the most capable and self-assured students opted to jump in. The others quickly followed and used the experience gained by the first pair to help them. A great deal of interstudent instruction went on in the use of the light meter and camera, especially concerning fine focusing. The exercises returned in a reasonable sequence, but, nevertheless, a number of traffic jams occurred on the editing and splicing equipment. To offset this, people were encouraged to suggest some project that could be done on Super-8 in some three or four days, but most of the group preferred watching and, indeed, participating in other people's exercises. Interestingly, the last group not only expanded from the original three to something like six or seven but also expanded their film exercise into a brief narrative. By this time, there seemed to be enough confidence so that my presence or advice was little needed. The exercises were finally edited and put together on one reel. They are uneven in quality, both in their uses of imaginative approach and technique.

"When the exercise sequence was begun, the students knew that this was merely a prelude to a longer film, or films, to be made by the group. Now came the time to plan for these longer films. Ideas, again, seemed to be very scarce, and those that were offered were either hotly criticized by others in the class or were shown by me to be impossible. Finally, two ideas emerged, and I suggested that possibly these be combined. This met with some approval, but still it seemed to be very difficult to focus the whole attention of every member of the group on
the job of developing the two ideas into a whole.

"After a day's discussion, which achieved a broad and simple outline for a possible narrative, I returned the next day with a copy of this for each member of the group and with my portable tape recorder. The tape recorder had the effect of pressing each individual to make his contribution specific and in sequence with our development. A very rewarding discussion ensued. We then went into storyboarding and from there went into the beginnings of the script itself.

"At this point, I suggested that we take parts of the script that were still poorly visualized, go out to the location, and film them on some 50 feet of Super-8 black-and-white. This proved to be very useful. When the rushes returned, it was clear that certain things had to be changed and that there did exist the prevalent danger that much of the film would end up being in medium long-shot. With these rushes, it was easy to demonstrate not only how the narrative could be pointed up but also how the tension might be heightened in various places.

"The last part of this operation, again, tended to continue for too long, largely due to the overly short nature of the class meetings and also to a reluctance on the part of some to admit that many things must be carefully planned and written down before starting to shoot.

"In order to film the location test, the group needed to decide on who was to direct and who was to operate the camera. With little difficulty, they picked up a group of three boys, asking one to be the director. The wisdom of this choice lay in the fact that the director, in order to do his job, needed the support of the other two.

"The filming of the projected script finally took place. There was some difficulty in seeing how the story could be broken down so as to use the crowd that was needed on one day only. However, this was finally overcome, and a group of students was found to act as the protesting crowd. On arrival at the location, organization fell to pieces somewhat, since the director had backed out and a new director had been agreed upon by the group, but the new director seemed reluctant to take much initiative. After some milling around, I decided that I should step in and help to organize, since the protesting group of students was available only on that particular day.

"We experienced considerable difficulty with weather changes after this, and, although it was used to achieve a change of mood for part of the film, the poor weather tended to depress the group in spirit. However, all were anxious to finish (indeed, at times too anxious) so that they tended to rush things and had to reshoot occasionally.

"Throughout the shooting, the problem of the reluctant director remained. He, on a couple of occasions, became a little angered because the rest of the crew ignored him. One of the problems, which was of my creation, was that I had failed to hustle the group enough to get the filming done earlier, so that now, in order to achieve anything, it became necessary for me to be too much a part of the events. On reflection, it might have been better to leave them entirely alone to make their own mistakes and to struggle through their own problems.

Intermediate assessment

"At the beginning of the year, this group was fairly hostile within itself and did not take kindly to the idea of cooperation. This slowly changed. Natural levels were found, whereby the stronger members took a great deal of responsibility and the weaker members were tolerated and
given fairly simple things to do.

"It was obvious that the short length of the periods we had in which to plan and shoot some of the film made things doubly difficult.

"It seems to me now that the group was not tested by being given considerable responsibility soon enough in the year and that when they did become responsible for the film, their natural tendency was to fall back on my advice or knowledge, or simply to fall back into a rather confused and apathetic attitude which derived from fear of failure.

"One of the big problems with film production and, indeed, with any kind of media production work, is the constraint placed on it by the nature of school schedules and school rules concerning working within the building or grounds, etc. It seems quite obvious, from both this experience of mine and the collective experience of teachers on the Project, that we needed the freedom to give the students assignments, projects, and opportunities that they could struggle with, without the pressures of time and space continually forcing them to leave their work until the next day or forcing them to change the idea because they were unable to leave the school or the town."

The final 16mm film produced by this class, entitled The Rise and Fall of Ralph D., is available and has received warm commendation from several audiences. It shows the leader of a small gang temporarily knocked out in a fight with student protestors. While he is unconscious, he dreams of his burial by the gang. Upon his recovery, he decides to sever his connection with them, throwing down his Iron Cross insignia and walking away.

Communications: Eleventh Grade

Two sections of this course were taught, one by Mr. Poire and later by Mr. Ball, and the other by Miss Carley throughout. The general pattern for both sections was laid down as follows:

1. The general ideas and concepts of communication as a process should be explored; the basic ways in which human beings communicate should be identified and experienced.

2. There should be an experimental investigation into several of the major communication media: film, television, radio, the press, advertising, etc.

3. In order that the nature and use of each medium can be appreciated, it will be necessary to provide factual information about its technology and its history. Such information, however, need not be presented in a chronological, or in other highly organized, form; information should be given as need is discerned.

4. The media, or modes, should be explored not only through examples shown and discussed in class but also through practical attempts to use the modes themselves.

In both sections, after the introductory period, the sequence radio-television-film was followed. (The press was only cursorily mentioned, but advertising received a good deal of attention in connection with television commercials.)

Notable in this course was the interchange of ideas between sections, tapes and other products from one section being presented to the other,
with consequent stimulation and fertilization of ideas through the competitive element.

The general concepts of human communication were readily assimilated at this stage. A typical exercise involved the writing of instructions to reproduce a simple line drawing, with a student who had not seen the drawing attempting to produce it on the board from the reading of another’s instructions. Photographic slides to convey ideas and emotions were made by the students, and so on.

The attempt to examine the nature of radio began unhappily, since this medium has, on almost all channels, degenerated into a faucet-like outpouring of background music interspersed with commercials. The powerful attractiveness of folk-rock music, in particular, made objective listening by the students almost impossible. Attempts were made at close analyses of the output of a particular station over a fifteen-minute period, but the patterns and forms of radio are so familiar a part of young people’s lives that it was almost impossible for them to perceive their "invisible environment," as McLuhan puts it. Nevertheless, when it came to creating tapes of their own radio programs, they were able to simulate the form with uncanny skill—jocular DJ, records, comic commercials, ear-catching sounds, etc.

In an effort to break the contemporary medium’s hypnosis, a tape was played of Orson Welles’s historic “War of the Worlds” broadcast of 1938. Despite some initial hostility to both the period (“before we were born!”) and the unaccustomed demand for close aural attention, the story of the national panic interested them. People’s reliance on authoritative media was illustrated by an elaborate hoax played on the class itself. The teacher and other faculty authority figures convinced the students that they had accidentally made contact with a dangerous rabies vaccine; the convincing aspect of the hoax concerned the use of the classroom telephone connecting with the principal’s office. ("It represents Authority," said a student.)

The demand was now strong to create a tape that might be played on the school radio system, creating the students’ version of panic. Out of this grew attempts, in both sections, to make tape versions of “end of the world” broadcasts. There were worked out in great detail, each section listening critically to each other’s efforts, and were very effective in both writing and execution.

The film The War of the Worlds was screened as an additional stimulus, and written compositions, etc., resulted. It is clear that these young people, at least, are personally engaged by concepts of world chaos and disaster. Further studies followed, of the 1966 power blackout and of other classic rumor situations. As a culminating illustration of man’s capacity for atrocity, Resnais’ masterpiece Night and Fog was screened without overt teacher comment.

The attempt to study current television met with some of the same difficulties as did radio, although there was more willingness to be analytically critical of this medium. An interesting attempt to develop individual discrimination was made in Mr. Ball’s class. The TV set was turned on for class viewing; in order to change the channel, a student had to articulate his reasons for change; dissentients similarly had to formulate their arguments. The channel was changed only on a class vote. This was moderately successful, but Mr. Ball reports on a curious side-result.

I deliberately made no move to adjust poor tone and picture flip, and no one asked to have it done, despite
viewing discomfort. At the conclusion of the class, I asked them why no one had asked to have the TV adjusted. Didn't they hiss and boo when the projector failed during a movie show? They made no reply . . . . Perhaps their silence was a recognition of the point being made.

The unit on television gained interest when several TV commercials were screened and studied, with a view to the students' preparing their own as a slide-series. Many of these slide commercials are excellently made, utilizing most of the visual syntactical elements of color, set-up, composition, etc., and showing a nice appreciation of the underlying motivational appeals of TV commercials.

From still photographs in sequence, it was relatively easy to move to film-making, and there was little doubt that here lay the major interest of the students. The disciplines learned in earlier exercises came into play, and the group film exercise benefitted accordingly. Of outstanding interest, perhaps, is a long and episodic Super-8 film, Fitzie's Flunkies, shot by Miss Carley's section, relating the comic misadventures of a gang of "Hell's Angel" cyclists. The film, full of local allusions, bubbles with good humor, and its performance at the end of the school year was a major event. Notably, its director and his immediate cronies had a school reputation for insolence and irresponsibility (one, in fact, was temporarily suspended from school during the shooting), but none of this was evident in the Communications class. The mother of one of the boys has gone on record to express her appreciation of the increase in interest and responsibility that her son showed during the filming. An amusing, and significant, sidelight concerns the opening shot of this film, which shows the comic hero fondling a nude store-window dummy in a field. For the public presentation, it was deemed advisable to remove this shot. The students reluctantly agreed, on the condition that it be restored after the adults had seen the film.

Interim assessment

In general, it would seem that this course was a valid and successful one for the eleventh grade. There is, of course, a vast amount of material that can be tapped, and selection and emphasis must follow the individual teacher's predilections.

It may prove more rewarding to vary the sequence radio-television-film, although, as taught, there were benefits accruing from the fact that the most complex medium came last, when contributory skills and disciplines had been learned from simpler media. The near-omission of the press medium is, perhaps, less regrettable than at first sight, since discriminatory reading and creative writing are normally the responsibilities of formal English courses.

The strong, emotive, and increasingly intellectual, appeal of modern folk-rock music may well support its claim to be a major communication mode today. But it may be that, rather than to attempt to isolate it for study, it is better for it to be allowed, as it did, to bulk large in tape and film projects.

Screen and Society: Twelfth Grade

Again, one section of this course had two teachers during the year, while Miss Carley taught the second section throughout. (A third section, not the subject of this report, was taught by an experienced social studies teacher, who used the films of the course in his own effective fashion.)
In many respects, this course was the most challenging and demanding of the teachers. Correlated with the social studies curriculum (all the others were allied to English), there was a clear, and deliberate, attempt to bring the problems of the outside world into the classroom; to some degree, the daily news determined the content of each lesson. The following events occurred during the school year and colored, to a greater or lesser extent, the background:

1. The 1967 summer urban riots and their aftermath;
2. The growing war protest and draft resistance;
3. McCarthy's initial campaign and the later primary campaigns of all the candidates;
4. President Johnson's "abdication";
5. The peace talks in Paris;
6. The poverty marches;
7. The King and Kennedy assassinations and funerals;
8. The Spock trial;
9. Student unrest in many countries;
10. The films Bonnie and Clyde and The Graduate;
11. Simon and Garfunkel's song "Mrs. Robinson."

The major "units" planned and the key films used to illustrate them turned out, in general, to be very much in tune with these events. They were:

1. Delinquency; the Individual and Society. The Young Savages;
3. Youth and Pop Culture. Lonely Boy and Ferry Across the Mersey;
4. Alienation. No Reason to Stay and Very Nice, Very Nice;

In addition to screenings, discussions, readings, and written work based on these and other films, it was intended that students should undertake practical projects related to the main themes. As an early memo to the teachers put it:

The eventual aim . . . should be not only to have stimulated discussion of current and recurrent problems and how they relate to young people and adults but also . . . to have given the students greater responsibility for organizing their own thinking and ways of researching these problems. Each student should, by the end of the year, have completed a project of which he is not only proud but has enjoyed the work it involved.
If the ideal of the last sentence was not completely achieved, there is no doubt that both sections moved a long way along the road. The three most successful units were those on Race, War, and Politics, and, in each area, a number of group and individual projects were undertaken and brought to completion.

To study the nature of prejudice, students were encouraged to make their own visits to various ethnic areas of Boston—the Italian North End, Roxbury, Chinatown, etc. They brought back reports in all modes—written, oral, taped, photographed, and filmed—together with tangible souvenirs, such as Chinese incense. If some of their classroom reporting savored too much of the defensive jocularity of the tourist returned from abroad, there was little doubt that most of them had, for the first time in their lives, come into physical contact with the lives of people outside their own community.

The unit on War has been described in a published article by Mr. Ball. Three group projects that he mentions are as follows:

1. A "random" war poem, achieved by each student writing some of his thoughts on war on a card. The cards were then shuffled, and the resulting "poem" was then typed and read. The result was more cohesive than might have been expected.

2. War "graffiti," based on the assumption that by 2,000 A.D. war would have been banned as an obscenity. The students were asked to write tabooed ("dirty") thoughts about war on a large white posterboard. (This interesting exhibit mysteriously disappeared from the classroom one night; although it contained nothing either sexually offensive or blasphemous, its appearance probably upset a member of the janitorial staff.)

3. A random composition of war sounds, recorded on tape and contributed to by each student. Mr. Ball describes this as "undeniably organic in nature and containing moments which would have shamed the greatest of composers."

In the Politics unit, attempts were made in both sections to develop mock political campaigns. But the students, in general, resented being asked to "play games" without meaning, especially since their own involvement with real politics was very close. (During the unit, President Johnson called for a lowering of the voting age to eighteen.) However, they responded readily (after initial shyness) to a suggestion that they should go out to interview local townspeople about current affairs, and, when they discovered that adults were, in many cases, less articulate than they, they could hardly be restrained from really aggressive interviewing, especially after the Kennedy assassination.

Interim assessment

The relative failure of the units on Alienation and Popular Culture (the first unit, on Delinquency, was more of an introduction than a full exploration) may be explained in a number of ways: The films may have been insufficiently relevant, projects not so imaginatively conceived, etc., but one suspects that these two themes were perceived as coming too close to the students' own personae, whereas politics, prejudice,
and war could be more easily objectified as faults of the adult world.

In any case, it was intended to reexplore these areas in the following year but in a slightly different sequence. The planned topics were:

1. The American Dream;
2. The Political Process;
3. Alienation and Society;
4. Other Cultures;
5. Race and Prejudice;
6. War;
7. Youth and Popular Culture.

It was necessary to establish at least a preliminary pattern in order that suitable films might be booked well in advance. But, as during the 1967-1968 season, the events taking place in the world outside the classroom had, finally, to determine the details of what was attempted.
CHAPTER IV

SCREEN EDUCATION COURSES: DESCRIPTIONS AND EVALUATIONS FOR YEAR II (1968-69)

Introduction

Toward the end of the first year of the Project, it was clear that adjustments needed to be made to the course plans for the succeeding year. There was a strong desire on the part of the North Reading school system to make available to as many students as possible, either at the freshman, or sophomore, levels, a basic one-semester screen education course.

It was decided to drop the Film Production course, offered to grades ten to twelve, for the following reasons:

1. It was uneconomic of teacher time and energy;
2. Without modular scheduling, it suffered from its short daily sessions, needing ideally longer weekly, or biweekly, periods;
3. There was no suitable physical space to house the students and their editing, and other, equipment;
4. The course demanded the same basic introductory work (Screen Fundamentals) as did the other courses being offered.

The pattern of courses finally agreed upon for 1968-69, therefore, was as follows:

A new, one-semester course, Screen Fundamentals, prerequisite for junior and senior screen education courses, was available to sophomores who had not taken Fundamentals of Film as freshmen the previous year.

The course was described as "an exploration of visual perceptions and the 'language' of the visual and aural media, designed to promote greater understanding of the media and to develop skills in their expressive modes" (offered for English credit).

A comparison with the course outline for Fundamentals of Film (see Chapter III) shows a clear deemphasis of the "reading-and-writing" element, consistent with our discovery of the student's inability, or unwillingness, to see the relevance of the literary form. Despite this, there would, of course, be a continued, unpressurized use of literary modes as necessary adjuncts to the learning process. The sections were divided between Mr. Ball and Mr. Powell, who would, in effect, "team-teach."

The Communications course, basically the same as that of 1967-68, was described as "a study of the modern media--film, television, radio,
newspapers, and advertising--and their uses, with a very practical empha-
sis on student production of film, tape, etc." (For English credit).

The intention here, again, was to concentrate on media productions
of all kinds, and both sections were to be taught by Mr. McVinney, thus
ensuring continuity and making use of his particular skills.

Repeating, more or less, the pattern of the previous year, the
Screen and Society course was divided into three sections, two to be
taught by Mr. Ball and one by Mr. McVinney (for either English, or social
studies, credit).

Screen Education Courses: Evaluations

Screen Fundamentals: Tenth Grade

Six sections of this course were taught during the school year, four
by Mr. Ball and two by Mr. Powell. Although, obviously, there were vari-
atations in the approaches taken in each section, a fairly clear-cut pat-
tern of work emerged, as follows:

1. Introductory exercises;
2. Still photography exercises;
3. Audio tape exercises;
4. Formalized instruction;
5. Slide narratives;
6. Super-8 filming work;
7. Final project.

(It will be seen that this pattern follows the general progression
described in the "Interim assessment" of the 1967-68 Fundamentals of
Film course.)

1. Introductory exercises. Mr. Ball, in particular, devised a num-
ber of "game-like" activities to exercise the students' visual sense.
For example, he prepared beforehand approximately twenty slides, one
being an extreme close-up, or distorted angle, of some object and the
other being the same object in proper perspective. In class, he initial-
ly showed all the first slides of each pair, asking the students to re-
ord on paper what they thought they were seeing. This task having been
completed, the slides were shown again, with their proper "solutions."
The particular purpose was to illustrate notions of framing and composi-
tion. As an example of a pair, slide 1 showed, apparently, a huge,
Bleached log protruding into the frame on a horizontal line. The stu-
dents' responses suggested that it was part of a broken building, a
wharf, a telephone pole, etc. Slide 2 revealed the object to be an up-
right piece of wood only one foot high--the remains of a dock piling.

Another exercise Mr. Ball calls "Wall Shot Dominoes." The class was
divided into groups, facing the back wall. Each group was given, at ran-
dom, ten large pictures cut from magazines of different content. One pic-
ture was placed on the wall. The object for each group was to build upon
the first picture, each group acting as a unit and each given one turn in
order to contribute one picture. Points were awarded for similar sub-
ject matter (1 point), for similar shots (3 points), and for similar
sequences (5 points). Each group had to decide which category their
offerings fitted into and how their pictures should be placed on the
wall. Great imagination was shown in efforts to gain the most points in
the sequence category—for example, a glass of wine; a man before he
drank the wine; his wife getting dressed before both had a glass of wine,
etc.

In addition to his work, all the items of equipment which would be
used during the course were carefully demonstrated. The cameras, pro-
jectors, etc., were stripped down in front of the group in order to
demonstrate how they worked, and film was run through the cameras and
projectors. Although the students tended to consider this to be some-
what boring, it was an invaluable introduction, since the questions that
they later began to ask about the equipment would be answered by refer-
ing them to their notes or by referring them to other students who had
become interested in the operation of a particular machine.

2. Still photography exercises. The primary exercise here was the
preparation with slide cameras of "self-portraits." The students were
required to work in groups of two. Each student was asked to choose a
pose and a background that would, in some way, be revealing of himself
and to give exact directions to his teammate as to the kind of portrait
to be achieved. Naturally, a great deal of useful discussion arose
about ways in which a camera could be handled, about the perceptions by
the photographer of the subject, etc. When the portraits came back from
processing, it was obvious that some of the students had a better eye
than others for locations, angles, etc. This was helpful both to the
teacher and to the students in determining who would have to work par-
ticularly hard to train their visual perception. While waiting for the
portrait slides to return from processing, a number of experiments with
lighting and camera angles were performed with a Polaroid camera with
black-and-white film. The value of Polaroid work is, of course, that it
is instantaneous. The exercise demonstrated how the character and, in-
deed, even the shape of a face may be changed by using lighting and
specific angles. The students were then encouraged to take second "self-
portraits," using some of the ideas they had gained from the Polaroid
exercises.

The next exercise was one involving the picturization of concept,
such as skill, friendship, help, awkwardness, etc. The object was to
demonstrate that such concepts could be shown by the relationship of an
object to a person or by the relationship of people to one another,
relating them in the photographic frame.

3. Audio tape exercises. The tape recorder was introduced by ask-
ing students to record their voices in any way they chose in order to
provide a "sound portrait" of themselves. Other short tape narratives,
etc., were worked on by groups of five or six students in order to pro-
duce more imaginative sound montages, interviews, etc.

4. Formalized instruction. A number of short films, highly visual
in nature and with only a simple music, or sound, track, were screened
and discussed with particular reference to how they appealed to an audi-
ence; in some cases, little discussion was raised after the film was
screened. The general purpose was to create an awareness of the variety
of subject matter of film and also to arouse some curiosity about the
nature of film itself. At this point also, more formal instruction was
given in some of the concepts of the language of film, derived from the
investigator's formulation. The language necessary to discuss both still
and moving images had been constantly in use by the teachers, but certain

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terms that were not self-evident now had to be explained. No immediate attempt was made to place these terms in a structured, functional relationship to each other, but several examples were screened and discussed in connection with the term that had been introduced. The purpose was to demonstrate that this kind of analytical approach provided one way of discussing films and, indeed, other media. (Words such as "image" were examined in relation to both visual, and sound, media.) Finally, the investigator's nine-point schema was introduced formally but with no insistence upon its being learned or upon its being a rigid system that had to be applied by the students.

5. **Slide narratives.** As an introduction to telling a story with pictures, students were asked to produce a narrative sequence of slides totalling six or seven. Various ways of introducing this assignment were discovered. For example, the students might be encouraged to create their own narrative subject matter or might be given a general concept (the word "escape" was particularly valuable) to be turned into a narrative. Later, the students were encouraged to extend the story line to allow for a sequence of anything between fourteen and twenty-four slides. Already having discussed the first slide sequence, they were able to clarify story lines that would lend themselves to a more involved narrative. One method that worked well was to ask all members of a class to submit stories for consideration. These were then given to a small group of students selected by the class, who chose three or four out of the total number. The stories were then discussed by the class, and the students signed up to become involved in one slide narrative or another. In some cases, a totally different narrative emerged from this discussion, and the originally-selected one was abandoned altogether. The narratives were then storyboarded and executed by the group of students responsible for them.

6. **Filming exercises.** At this point, the professional films viewed and discussed were extended to include a number of feature-length films. The students were asked to write reviews of these films, having previously examined a number of examples of newspaper reviews.

The major difficulty in filming narrative exercises was to inculcate the concept of editing. This is very difficult to describe in the abstract and is not even possible to demonstrate easily from professional films. The solution found in the project was that some simple action is chosen (operating a film projector, for example) and that this action is then filmed in one continuous shot. The action is then filmed again in several shots, from different angles and distances. Each shot overlaps into the other so that each student receives action film showing (a) action in one continuous sequence, and (b) the same action broken down into sections. Students are then asked to edit the second section to achieve the smoothest visual flow possible. When these exercises have been performed, the students are now in a position to work on longer projects involving groups varying in numbers from three to six.

The subject matter of films of this type was wide but typical of the young student films everywhere. Most of them were high-spirited romps—mock robberies, jailbreaks, fights, etc. It is, perhaps, notable that, in a number of cases, students achieved good relations with local bank officials, police, etc., in order to use their premises for these films. A small group of students achieved excellent work in the animation field, involving toy soldiers, tanks, etc., in a miniature war, and a few trick films were made.

7. **Final project.** The end project of this course was named by the students themselves "the self-commercial." Each student was required to produce a commercial on either tape, slide, or film, or on a possible
combination of these three media, to "sell" either themselves or a member of their immediate family or environment. They were required to use all the skills they had mastered in the course not only to reveal the subject as an appealing person but also to emphasize some particular quality or attribute he, or she, might have. The object was to see how well the students had integrated their new skills with their desires to perform a particular task and to discover whether their perceptions of themselves, or those close to them, had been in any way heightened, or facilitated, by the use of media.

As a postscript to this account of work at the sophomore level, it may be valuable to describe the out-of-school involvement of a small group of freshmen boys whose English class happened to meet in Mr. Ball's room, where the evidences of film work inspired them to seek his cooperation in making their own 8mm movie. They began with standard "cinema-verite" shots, but one shot happened to suggest a different technique, that of "pixilation," in which a human being is animated in cartoon form. At the suggestion of one of them, they planned and shot a lengthy and successful sequence in this very demanding and tiring style (each frame has to be set up and then shot individually) and completed their voluntary film with imaginatively-made titles. Their enthusiasm undiminished, they joined together to pay for a roll of film in order to make a more ambitious movie.

**Final assessment**

In terms of the application and enthusiasm of most of the students in these classes, there is every reason to claim that a one-semester course of this nature, in which practice in the basic uses of media tools is provided through a series of small-group informal exercises, and in each of which the individual may introduce his/her own communication goals, is a necessary and highly-successful one. In the words of Mr. Ball:

Toward the final stages of working on the projects, there were several days in a row when the entire class was engaged individually or in groups, with a high rate of interest, using all the variety of equipment, sharing it when necessary, and located in all parts of the room and out in the hallway. It was a smooth operation, and everyone knew it, for not once did I have to settle differences of interest. Moreover, equipment and work was collected and repacked into cabinets prior to the bell, not because interest flagged but because they didn't want to rush off leaving their projects in a jumble. They wanted to return to them the next day, to find them neat, and to continue.

Moreover, in this course especially, there is evidence that analytical instruction in film techniques and aesthetics was by no means wasted in terms of students' observation, response, and in their articulation thereof. Two "tests" were applied by Mr. Powell, in which he screened short films or extracts, provided the students with brief, invented "critical quotations," and then asked for individually-written comments on these quotations, in which the student had to support his statements by specific references to technical elements in the film (for example, lighting and editing). They produced results which, in the evaluation of the investigator, are astonishingly good. In every case, without exception, the students responded most remarkably to the point and to the very best of their abilities. Spelling and grammar were uniformly excellent, and only on such minor grounds as neatness of handwriting would it have proved to be possible to seriously differentiate between papers. Perhaps the most revealing remark of all was written on the
In terms of the "success" of these sophomore courses, however it is necessary to bear in mind the wider range of students they covered. There was a deliberate attempt, it will be recalled, to make a screen education course available to as many sophomores as possible, and this resulted in classes more heterogeneous in their interests and closer to the general school norms. In the words of the Project's Research Assistant, "... their motivational levels are self-directed and allow them to assimilate that part of the Project which is viable to their own mode of existence."

Communications: Eleventh Grade

The two sections of this course were taught by Mr. McVinney, who provides the following account:

"Since there were many students in these classes who had not had Screen Fundamentals, the course began with some elementary considerations. The groups spent two weeks at the beginning learning how to use the equipment. Proper use of each piece of equipment was demonstrated to the group, and then a series of assignments were required for completion, in groups of two. Students new to screen education courses were most interested in the tape recorders. Tape provides the most immediate feedback for their efforts. One group of four boys spent the entire equipment orientation period conducting mock interviews of each other. This was great fun but also provided a way for them to imitate the people they admired most, while getting used to the sound of their own voices on tape.

"Practical visual experience was the next essential element in the Communications course, as I saw it. A series of narrative slides was assigned. These slide sequences were to consist of three slides each and were to express concisely and precisely the story they wished to tell. This proved to be a challenging assignment. One boy remarked that he wasn't used to saying what he had to say "on three 'one-by-one' negatives." Each group was asked to plan the sequences ahead of time and then, with an empty camera, to try out several different ways of completing each picture. They were allowed six pictures (half a roll per group), to be cut to three. (One of the veteran students recognized this as "editing" and tipped off the others in his group about what I was up to.) Each group was asked to consider the two finished sequences—three accepted slides v. three rejected slides—and to articulate the reasons for the choice they made between the two.

"The initial activities described above went on for six to seven weeks, punctuated by the viewing of many short films. This seemed to be adequate preparation for the other aspects of the course that I had in mind.

"It was decided to move next into a consideration of film itself as a medium. The class studied the visual language through films of all types, from John Wayne to Norman McLaren. As a practical application of what they were learning, the class was again asked to break into groups and to turn its slide sequences into a moving Super-8 film. This transition was harder than I expected. The students had difficulty accepting

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1 Even so, it will be noted that the sophomore classes still shared some, at least, of the unrepresentative qualities of the Project students as a whole.
the challenge of the jump from still sequences to moving film.

"The next section of the course was a study of advertising. Students were asked to make a collection of magazine advertisements that represented value-based appeals to the consumer. Many of these were discussed in the classroom with the use of the opaque projector. Certain visual patterns began to emerge, and it was easy for the students to identify the "tricks" the advertisers were playing. The advertisement they first deciphered was the "Coke on the beach" advertisement. They were quick to recognize the appeal to sexual virility and to youthful "good times," as used in the advertisement. The basic question for the group became, "They may be trying to get you to buy product X, but what are they really selling?" An optional assignment during this time was to set up a one-page magazine advertisement, using similar visual tricks and techniques to sell a unique product. Unfortunately, other options were chosen to the exclusion of the magazine assignment.

"With the help of TV commercials available on 16mm, the classes were able to extend their study of advertising. By applying to the TV advertisements what they were learning about film as a medium, the students were able to isolate filming techniques at the same time that they came to understand advertising patterns. They were asked to identify types of shots, uses of angles and colors, and development of thematic structures. They were required to carry this into an original Super-8 film commercial of their own creation. "Blotto Ink" was an example of that assignment, an ingenious spoof in which a boy's shirt is smeared with various staining substances, inserted in the washing machine, and comes out clean, except for the ink stain. Moral: "Blotto Ink" stays on!

"The study of advertising introduced the whole area of radio and TV into class work. It was decided that a more considered approach would be to deal with radio before TV, and so we began with a study of radio advertising. Taping several types of radio commercials laid the groundwork for a comparison between the two media, that is, visual v. aural. In order to crystallize the differences, students were asked to produce a one-minute commercial on tape.

"From this, research groups were formed to investigate, in any appropriate way, various aspects of radio as a medium. The groups chose to study the following:

1. History of AM radio;
2. Radio as a news medium;
3. Radio as a music medium;
4. Radio as an advertising medium;
5. Radio talk shows--function and effects;
6. FM radio.

"The reports to the class were supposed to be creative in nature. Each group was to devise its own way of getting its information back to the others. No group showed any approach creative enough to describe in detail here. Most could not overcome the traditional "book-report" syndrome, despite the availability of other media. One group did try to write, and to tape, a radio program as its medium for getting information to the class. Unfortunately, the "program" failed.
"As another part of the radio study, students were assigned to visit a radio station in Boston. They were to go on their own, in groups of two or three. Most students made the visits and reported back to the others. One group was interviewed on the air, and another secured a tape from the station, which the other students enjoyed. During this part of their study, the students came to see disc jockeys as human beings, not distant heroes; they began to ask basic and revealing questions about the functions of these people. The group discussing the talk programs successfully aroused the rest of the class when they pointed out that "talk masters" were often merely former disc jockeys and should, perhaps, be held suspect for their authoritative comments about Vietnam, racism, etc., on the air.

"As a final project for the study of radio, groups were asked to produce a five-minute radio program, using as many different aspects of radio broadcasting as possible. The results were, perhaps, discouraging but only because they represented a creative deficiency in the students, not because of a failure to learn about radio as a medium.

"At this point in the course, emphasis of study was transferred to television. The consideration of film, advertising, and radio should have sufficiently prepared the classes to take on such a study.

"The class was asked to devise a survey which would:

1. measure some of the viewing habits of North Reading residents;
2. measure some basic attitudes of the North Reading residents.

"By asking multiple-choice-type questions about various TV shows, the group hoped to discover some of these things. This assignment proved to be very valuable for the following reasons:

1. Students had to develop a sense of proper wording for survey-type questions;
2. They had to recognize, and overcome, their own prejudices about the programs that they chose to ask about in order to devise workable choices in their questions.

"The class spent nearly three weeks completing the survey. The discussions that took place about TV programming and its effects on its viewers were often very valuable. When the survey was ready for distribution, the school year was nearly ended. Unfortunately, not all of the questionnaires got back to class before the end, but what feedback that was available suggested that residents who were asked to fill out these questionnaires were helpful and even reasonably interested. The activity is fairly difficult but worth the trouble. Another communications class will probably continue the survey and will probably put together some final results.

"One of the most exciting developments during the Communications course was the arrival of a team from Boston's ETV station, WGBH, to film a documentary about the Screen Education Project.2 The students were in the middle of shooting their slide sequences when the program was filmed. This had both advantages and disadvantages.

2This was aired as "On the Scene: Through the Cameras' Eye" and a 16mm kinescope is obtainable.
"Since the filming of the TV program came before the class had actually begun its own work with TV, much of what was happening escaped them. The teacher, in an attempt to interpret some of the activity of the camera and crew, discovered that many of the students were simply not able to grasp the essence of what was going on. Furthermore, since the crew and its director were not there to teach (their own schedules and time-tables naturally coming first), the class missed an opportunity to learn some firsthand practicalities of TV filming. Nevertheless, the subsequent viewing of the program by the students helped to explain much that had remained obscure before. They were amazed, for example, at the amount of footage needed to be accumulated for the adequate production of a fifteen-minute show. These students are seldom exposed to, or involved in, work calling for detail and responsibility of this kind. The classes agreed that the precision they identified as characteristic of the program was in sharp contrast to the usual superficial treatment of tasks they were used to.

"The TV show itself also provided another important experience for the screen education students. It provided a real recognition of their work and involvement. This was evidenced by the seriousness that went into their choosing what aspects of their work should be included and why. The teacher asked them to decide what would be important to a person hearing about the courses for the first time. Their reactions were precise and knowledgeable. For example, the reason it made sense to film a group at work on a project was because most work in the course is done at the group level; the reason it make sense to trace the development of a slide, or filmed, sequence was because effective communication in these media is a primary goal of the course. In other words, there was a genuine desire to represent the course accurately, without setting up unreal, or impossible, situations. If the final program was not completely representative, it was not because of any desire on the part of the students to fool their public.

"As early in the course, then, as October this group of students had shown an understanding and appreciation of what they were up to in their screen education class, and they were able to transfer that understanding successfully to anyone who watched their program later on television."

Final assessment

There seems little to add here to the "Interim assessment" made the previous year (see Chapter III) except that courses of this kind exploring the media most familiar to young people are certainly valid and can be successful. Mr. McVinney clearly enjoyed engaging his own interests and experience in the practical explorations of media, advertising, etc., which he devised with his students, and it was apparent that they, in turn, found relevance and pleasure in what they were involved with.

Nevertheless, in comparison with the sophomore classes, there was a noticeable falling-off in attention level and in sense of responsibility, part of it occasioned by an increased proportion of "marginal" and "disenchanted" students.

Screen and Society: Twelfth Grade

The seven units originally planned for this course (see Chapter III) were reduced as follows:

1. Race and Prejudice. The Young Savages; A Time for Burning;
Troublemakers; and Nothing But a Man.

2. The Political Process. The Great McGinty; The Manchurian Candidate; and Fail-Safe.

3. Youth and Growing Up. All Fall Down; a collection of prototype extracts from feature films, prepared by Films, Inc.; ten-minute extracts were used from such films as Citizen Kane, Shane, Edge of the City, and Children of the Damned.

4. War. Reach for Glory; Toys; The Hill; and Night and Fog.

It was hoped that this progression would combine reflection of societal, and world, events with some of the more immediate concerns of the students. (The major external event during the school year was, of course, the presidential election and its aftermath.) Variations on the projects and assignments attempted in the previous year, and a number of new ones, were introduced. But it became apparent, as the year progressed, that there was a serious lack of basic knowledge and skills among the majority of the students, and frustration was frequently experienced, often because of this. Progress within, and between, the units had to be interrupted for elementary instruction, and this, in turn, led to inability on the part of the students to grasp the intended patterns.

With the first unit on Race and Prejudice, for example, there was every reason to expect a sense of relevance for the students, since five black students from Roxbury were about to begin school at North Reading, and a black resident of North Reading was invited to talk to the classes. But a substantial number of students showed an actual open hostility towards being asked to discuss, and to take part in, problems which they apparently still considered to be far away and unapproachable. Although this hostility was obviously due to a general ignorance about the black and his total condition, and was also due, perhaps, to a measurable level of racist opinion, there seemed also to be a fear of intellectualizing and articulating these difficult issues. Projects were intended to be documentary in type: For example, the students were asked to capture on film some reason for the black man's frustration. Some youngsters visited Roxbury. Although no worthwhile concrete project resulted, their exposure to that environment did arouse some comments from them. The ugliness of the ghetto made a conversation topic for them at least.

During the Politics unit, which was timed to coincide with the presidential election, it was discovered, from conversations with the students, that there was a general feeling of alienation toward all political processes, even at the school level itself. Throughout, there was a high degree of apathy and/or hostility toward discussing political issues on anything but the most superficial level. What was gleaned from the conversation indicated that the task of informing them about world conditions would stagger any teacher's ability. Although many of the films themselves were well-received (notably, The Manchurian Candidate), no worthwhile discussion resulted.

It was at this point that it was decided to turn to basic production work, and the next unit on Youth suffered because the students resented being drawn away from activities which they clearly regarded of more importance than the viewing and discussing of film extracts.

Even with the final unit on War, the same low level of involvement, dialogue, and performance was encountered. At this point, it was decided
to abandon the more formal screening aspects of the course, and the re-
mainder of the time was devoted to production projects, which were well-
received and, in few cases, acceptably executed. Students were asked to
capture on film some identifiable life styles, or situations, present in
North Reading.

This turning of their attention to their immediate environment, pro-
voked, finally, some interesting responses, somewhat akin (although
markedly inferior) to that evoked by Mr. McVinney in a similar discus-
sion with his Communications class.

Final assessment

Although there is still reason to believe that courses along the
lines of Screen and Society are necessary and valuable, especially for
older students, it would be dishonest to claim total success for the
twelfth-grade courses so far taught at North Reading, especially in the
second year of the Project.

When it was originally planned, Screen and Society was seen as the
logical end-course of a continuum which led from Fundamentals through
Communications to a social-studies-oriented consideration of contempora-
ry problems illustrated by the media. Partly because this is a three-
year concept involved in a Project officially funded for only two years,
but also because of lack of control over the school's enrollment proce-
dure, only a minority of senior students in the courses had previously
encountered a screen education class.

The majority, acting on misinformation or on misapprehension, seem
to have joined the course in the expectation of film production activity.
They were unequipped for this by lack of earlier classes, nor did the
Project's resources allow for more than a minimum of such teaching, de-
sirable, though, this was seen to be. Moreover, most of the films
screened, although known from previous, and others', experience to be
relevant and stimulating, apparently failed to properly engage these
students. Teachers and observers frequently reported a mood of apathy,
but the difficulty of deciding its cause is well-illustrated by this
quotation from an observer's account of the screening of Fail-Safe, a
film dealing, surely, with matters of some consequence:

The class was very attentive during the film. However, once the film was discussed, the level of interest dropped considerably ... the class, in general, was quite apathetic. This might have arisen as a result of two considerations: Either there was minimal understanding of the film subject or its moral implications, or the subject was so commonplace to the students that it evoked little, or no, reaction, that is, it was taken for granted that such an incident could happen and since it was far enough removed from their scope of reality, it was not a distressing subject.

The numbness that afflicts even intelligent adults when attempting
to cope with possibilities of nuclear disaster might be thought to ac-
count for the Fail-Safe incident, and the kinds of universal social
ills and problems evoked by many of the other films used certainly do
not lend themselves to easily-articulated discussion. Some frustration
and bewilderment was to be expected. But, as the course progressed,
there seemed no escaping the conclusion that the larger goals of Screen
and Society were not being achieved with the 1968-69 classes.
From his experience with both the Communications and the Screen and Society classes, Mr. McVinney, who will be continuing screen education classes at North Reading in 1969-70, has concluded that the basic premise of the Screen and Society course—that films can be used as an effective starting point for discussion and action—is not invalid, but that more direct involvement of students and community is required. He states:

The course will be far more successful if it encourages the participation of the community as well as the students. Without some involvement from both sides of the "generation gap," the course cannot hope to reach its full relevance. One way for the community involvement to happen would be for a class to present numerous feature, and short, films publically. These programs can be planned around whatever studies these students are doing and can be enhanced by follow-up activities. Such activities might include discussion of a film in which community members and students take part, films made by anyone wishing to do them in reaction to commercial screenings or discussions and anything else the class is able to devise. . . . The course should investigate issues of community concern, national concern, and world concern. Simply because an issue is controversial is no reason to stay away from it. In fact, controversial issues will have to be the center of the course work if the kind of involvement we seek is to happen.
CHAPTER VI
EVALUATION OF THE STUDENTS IN THE SCREEN EDUCATION PROGRAM

Introduction

It was agreed by the Project Staff that a central aim of the project work should be to aid students to develop their self-knowledge and self-awareness, and, thus, the major emphasis of the evaluative procedure was on the students themselves. Four instruments of evaluation were selected by the Project Staff and the data obtained are interpreted in this chapter.

Student Self-knowledge Scale (SSS)

The Hypothesis and the Instruments

It was decided to test the hypothesis that screen education may increase the student's self-knowledge. For the purposes of this study, "self-knowledge" will be defined as: the ability to accurately describe one's own personality traits as measured independently by a standardized personality test.

The standardized test employed to give a valid measure of personality variables was the Cattell Junior-Senior High School Personality Questionnaire (hereafter abbreviated HSPQ). During the first year of the Project a Student Self-knowledge Scale (hereafter abbreviated SSS) was developed as an instrument for students to describe their own personality traits. In the light of the operational definition of self-knowledge, it followed that the SSS would have to record the student's view of himself in substantially similar categories to those delineated in the HSPQ (fourteen in number). The SSS was therefore designed using an "I am . . ." format, allowing the student to circle the adjective that best described him for the specific trait in question. The adjectives used for the SSS were taken directly from the section in the HSPQ manual which describes in less technical terms the specific personality traits the instrument measures.

During the first year of the Project the SSS underwent several revisions (some in consultation with students) in an attempt to improve its validity and reliability. The final form of the SSS contains 39 sentences, each having, a five-point range, descriptive of the personality factor being considered. In all but two categories, there are three sentences in the SSS which correspond to each category of the HSPQ.

Testing procedure

At the beginning of the second year of the Project, Form A of the HSPQ was administered to the students enrolled in one of the three screen education classes, as well as to control
students randomly selected from the sophomore, junior, and senior class lists. These control groups were broken down by class, so that for each grade-level screen education class there would be a corresponding group of control students at the same grade level. Two weeks later, the SSS was administered to the experimental and control groups. Thus, pre-HSPQ and pre-SSS results were obtained.

Three weeks before the end of the Project courses, Form B of the HSPQ was administered to all subjects of the study. Two weeks later, the SSS was again administered. This procedure yielded post-screen education class scores for all the students enrolled in a Project course, and a post-test evaluation of the controls after the same amount of time had elapsed.

Scoring of the tests

The HSPQ answer sheets were hand-scored, and the raw score for each subject was recorded on a pre- and post-test basis. (The raw score was used because the SSS had not been standardized.) The scoring procedure for the SSS involved recording the score of each question under the corresponding HSPQ category. The scores of the HSPQ have a possible range from 1 to 10. The SSS questions, as mentioned earlier, had five possible answers each. The first response was assigned the value of 1, the second a value of 2, and so on, up to 5. For most of the fourteen HSPQ factors, an average score was computed from three different questions on the SSS. (Since the range of these average scores was also 1 to 5, a technical adjustment had to be made so that the SSS scores coincided with the HSPQ scores. Because the HSPQ has been standardized, it was decided to double all SSS scores to make a proper comparison.) Once all scoring was completed, four scores were available for each subject (experimental and control): pre- and post-HSPQ, and a pre- and post-SSS.

Treatment of the data

The first step in testing the significance of the results involved computing for each subject the amount of deviation between (a) the pre-HSPQ and pre-SSS, and (b) the post-HSPQ and post-SSS. For example, if a subject's score on Factor A of the pre-HSPQ was 5, and his score for the same factor on the pre-SSS was 7, there would exist for that factor a deviation of 2 units. The amount of unit deviation for each subject was computed for each of the 14 factors, and a total deviation score obtained. Thus, if a subject deviated an average of 2 units on each of the fourteen factors, his total deviation score would be 28.

This procedure was followed for both the pretest and posttest results, so that two deviation scores were obtained in all cases. One deviation score measured at the beginning of the screen education course, the other measured at the end. In terms of the study's definition, these

1At the time of selecting the control population, it was assumed that the Project classes were comprised of students who were a representative sample of the entire school population. However, it was several months later that the results of an unrelated study at North Reading revealed that the Project students were quite unrepresentative in many respects. The details of this study, in addition to providing an accurate description of the experimental population concerned, underline the "undesirable" qualities of the Project students as a whole.
scores yielded (a) the amount of self-knowledge an individual had prior to the experiment, and (b) his amount of self-knowledge at its close.

This done, a mean score for the amount of deviation was determined for each experimental class and for its respective control group. Thus, mean scores were determined for sophomore experimental and control groups, junior experimental and control groups, and senior experimental and control groups. The mean and standard deviations of three paired groups were compared to see if there was any significant difference between them. A $z$ test was the statistical technique employed, and no significant differences between any of the three paired groups were found.

Finally, a $z$ test for finding the difference between means for correlated data was used to determine the post-experiment differences between the paired groups.

Discussion

There was no significant difference in terms of self-knowledge between the experimental and control groups at the beginning of the school year. The mean amount of SSS deviation from the HSPQ scores was close to 27 units for all groups, which means that on an average, the subjects' SSS scores deviated roughly 2 units (one way or the other) on each of the fourteen HSPQ factors. The posttest results show that the experimental and control groups differed from each other more than the pretest results indicated. In two of three classes (the sophomore and the junior), the experimental subjects' SSS scores deviated less from the HSPQ than did the control subjects. (In the case of the junior group, this difference was significant at the .05 level.) In the senior category, the controls showed less deviation than the experimentals, but this difference was not a significant one. (This last finding is of particular interest in the light of the difficulties experienced with the senior course—see Chapter IV.)

Implications

The testing of the hypothesis that screen education increases self-knowledge was, from the very beginning, tentative and exploratory. The operational definition of self-knowledge is admittedly simplistic, and the design of the study would certainly have been sounder if the experimental and control groups had been more closely matched in terms of intelligence and other significant variables. Despite these limitations, however, the results reported above do seem to indicate that, in two of three classes, the Project students were able, after their courses, to make self-assessments closer to a standardized measure of their personality than were the control students. In the case of the junior class, this difference is statistically significant.

In the light of these results, it is suggested that the hypothesis that screen education increases self-knowledge has some validity and certainly needs investigation.

Classroom Observations

Beginning with the second semester of the 1967-69 school year and continuing to the end of the 1968-69 academic year, a total of seventy classroom observations were made. This procedure involved one or more of the research staff observing a screen education class in a fairly random manner. During the class period the observer kept brief written
accounts and tabulations of what transpired in the classroom and what conclusions could be drawn from these observations. Seven constellations of observations emerged from this procedure, and a summary of these follows.

Unquestionably, the most striking feature of the screen education classes at North Reading High School was the amount of freedom in the classroom. Compared to nonscreen education classes which were observed, the screen education classes had a distinctly permissive atmosphere about them. This permissiveness, for example, could be seen in the seating arrangement that allowed students to sit where they pleased, the amount of locomotion around and out of the classroom, and the informality of the teacher-student relationship. Unfortunately, not all students were prepared for this kind of freedom and a number of them misused it. In such cases, what could have been one of the strongest aspects of the course evolved into a major structural weakness. This weakness was best exemplified by the non-directed small-group work, which was the most frequent technique used for getting projects completed. The groups were established so that the students could work with their peers with a minimal amount of teacher supervision. The assumption was made that students, regardless of past experience, could use this time in an effective and efficient manner. In practice, however, only some students were able to do so.

Others took advantage of their newfound freedom and often abused it. It was further noted that this situation was, in some instances, exacerbated when the teacher did not give clear and complete instructions and deadlines, did not establish checkpoints along the way, was not consistent in enforcing behavior, or failed to take action if an important deadline wasn't met.

On the positive side, however, a number of students did benefit enormously from this free and permissive climate. Those students who had a certain degree of self-discipline and responsibility before they entered the course used the apparent lack of structure in an advantageous manner. They tended to view their course as one of the few positive attractions the high school offered. They responded by producing some very creative and unique projects.

Thus, the freedom and self-responsibility of the screen education courses had distinct disadvantages as well as some advantages. What seemed often to be missing was the setting of realistic goals and limits as well as methods for their enforcement. In some classes, this was indeed accomplished, and it appeared as though the students benefited from these classes more than those others where there were less limitations and enforcement. Thus, it is suggested that the ideal screen education class have broad limits but consistent enforcement, to allow freedom without license.

The second most frequent constellation of observations was concerned with apathetic, uninvolved, and sometimes hostile students. No doubt through misunderstanding or lack of information, the guidance counselors at North Reading High School channeled a fairly large number of this type of student into the screen education classes. (The rationale, apparently, was that screen-education teachers would be suitable remedial or custodial personnel for these students.) Quite naturally, an undue number of unmotivated students in a classroom are a built-in obstacle to successful teaching. In the particular cases of the screen education classes, these nonparticipating students were a liability for several reasons. First, their noncooperative tendencies were heightened by the permissive nature of the class. Whereas they had been forced to keep silent and in place in other classrooms, they could now talk and move about freely in
the screen education classes. This antagonized those students who were involved and participating, and the result was often a division in the class with both covert and overt ill-will between the groups. In many student interviews the complaint was made that the "goof-offs" were a detriment to the class and should be asked to leave. This, according to the students, would not only allow for more learning and more accomplishment but also brighten the somewhat tarnished image that they felt screen education was acquiring among students and faculty.

If the trend of placing large numbers of nonparticipating individuals continues at North Reading, the screen education courses may cease to attract the serious and participatory student. This, of course, would make the cycle complete and vitiate a great deal of what screen education could offer to the students or the curriculum.

The third constellation of observations deals with delays due to various problems of logistics and materials. Two of the three problem areas are related to a limited budget, but the third might have been overcome by more forethought.

One source of delay was the time it took for film to be developed. Quite obviously North Reading High School was not equipped with developing facilities. Thus, during or immediately after film was shot as part of a class project, there were built-in suspensions of classroom activity. Since the teacher was often occupied supervising the filming procedure of another group of students, he could not devote his time to those who had completed their production. Several times written assignments were set during these lags, but the students seemed to sense that these assignments were merely meant as "fillers" and that, even if they were graded the grade would not count that much. As a result, students were left with little to do but wait.

More waiting occurred when certain equipment was needed. This came about when more groups or individuals were ready to use a camera or recorder than there were cameras or recorders to go around. The students were patient to a point, as they realized they would have to wait their turn, but undue delays caused restlessness as well as dulling of motivation and interest. (Many times, however, the use of equipment was staggered so that this complication did not arise.)

Some of the wasted time might have been eliminated if more careful planning were given to each unit, and perhaps even to each day. Granted that even the most careful plans can be disrupted by unforeseen circumstances, it was the impression of the observers that some of the logistical problems could have been handled better and unnecessary delays eliminated. Small details, such as having an operable bulb for the projector or having a film that was not broken, made a difference to the students.

A fourth area of classroom observation focused on the nondirected small groups that were frequently employed for projects or activities. As with the freedom of the screen education class, these groups had both strengths and weaknesses. On the positive side, the small, teacherless group allowed the student more interpersonal contact than in his other classes. By having the groups self-selected, the students were able to work with peers with whom they felt they had something in common. Moreover, the less aggressive student seemed to be more expressive in this type of setting. The groups also reinforced the feeling of freedom that the students had as the teacher was present more in a resource capacity than as a disciplinarian or taskmaster. This heightened the students' feeling of self- and/or group responsibility.
One drawback, however, was that the students had had little experience in nondirected group work and did not know how to use this time effectively. The self-selection process also occasionally brought together an aggregate of students who did not want to work and, therefore, used group work time for other purposes. Frequently these other purposes were disruptive to the rest of the groups.

If group work is seen as a vital aspect of screen education, it may be that a brief introductory seminar on group work and dynamics should be held at the beginning of the school year. Also, the groups might be asked to keep a daily record of their progress and be evaluated in terms of what is being done in that group.

The fifth topic that the classroom observations often dealt with was that of the teacher and his or her methodology. In every classroom during the two years of the Project, there seemed to be a special relationship between the screen education teacher and the students. The informality and permissiveness had much to do with this as the students tended to view the teachers as "one of us" and not "one of them." This gave the classroom quite a different feel from other nonscreen education classes that were often visited. From these observations and student reactions, a composite profile of a successful screen education teacher has been compiled. The characteristics include: ability to command the respect of the students; ability to control the class yet allow for spontaneity and creativity; ability to be supportive and patient; understanding of the milieu of the student and ability to communicate this understanding; ability to allow the students to participate in the decision-making process; ability to be enthusiastic about the content of the course he is teaching; and ability and preference to be a resource person and facilitator rather than disciplinarian, autocrat, authority-figure, dictator, or the like.

One notable aspect of the three screen education courses was the diversity of the classroom format. Collectively, the three different courses offered the student the following activities: film production, script writing, film editing, directing, acting, prop-making, picture taking, film viewing, film discussion, television viewing, television discussion, video taping, writing assignments, class discussions, group discussions, and tape recordings. A student progressing from one course to another, therefore would be able to experience and acquire new skills and techniques in a variety of media.

A final phenomenon that requires mention is the consistent magnetism of the first-rate films. In the vast majority of classes, whenever an average-to-good film was shown, the students invested a great deal of attention in the screen. Only infrequently was there talking, or inattentive students during the viewing of a film. This is not to say, however, that the degree of comprehension and understanding was proportionate to the degree of attention. Over the course of the year, the students did appear to acquire more facility in analyzing and interpreting a film but the actual classroom discussion of specific film was inconsistent in content, length, and student interest.

Several salient points emerge from these classroom observations. One is that screen education courses offered the student an informal learning climate that many students were able to benefit. What can be learned from the North Reading experience, however, is that this freedom needs some limitations, as well as a student body that can use this type of classroom setting to advantage. This is related to another consideration, which is that students who are on the verge of dropping out of school or have mentally dropped out of the educational mainstream do not benefit from screen education nearly as much as the student who wants to
get involved and learn within the school context. A third aspect is that the observation underscored the need for both short and long-range planning. Equipment and film processing logistic problems should be anticipated, to avoid long delays that discourage student interest and enthusiasm.

Another aspect is that of small group work. This way of structuring class time appears to have much potential in a screen education class, but time is needed for both the teacher and the student to learn how groups function and what is the most efficacious way of using the small group. Finally, the strong rapport between the screen education teacher and his students was consistently found. The relationship between the screen education Project teachers and the students grew throughout the course, as a feeling of mutual trust and understanding tended to become more apparent. The students reacted very favorably to this type of relationship and it is suggested that the positive rapport manifested in the screen education classes greatly facilitated their learning process.

Student Interviews

During the two years of the Project a total of 75 student interviews were conducted, with the results being transcribed and evaluated. Many brief and more impromptu interviews were held when specific questions arose which needed some immediate answers. The purpose of these interviews was to obtain first-hand information from the students regarding their impressions, criticism, and reactions to the specific course they were enrolled in, as well as screen education in general. The primary advantages of the personal interview over the Student Evaluation Questionnaire were twofold: The students tended to be more open in a one-to-one or one-to-two relationship; the interviewer could have responses clarified and expanded when necessary.

For the most part, the Student Interviews yielded data very similar to that obtained from the Student Evaluation Questionnaire. Thus, this section will give only a brief, general patterning of the student responses in summary form and will devote the majority of space to the comments of the students themselves.

Overall, the students reacted favorably to their screen education courses. The reasons for this favorable reaction can best be summarized by the words: "freedom," "difference," "self-responsibility," and "easy." Thus, as was brought out on the SEQ, the students perceived the screen education classes as being quite distinct from the normal classes to which they had been accustomed. The freedom to move about the room during the hour, or sit where one desired, was frequently mentioned as the most outstanding or enjoyable aspect of the class. Secondly, the content of the class was quite different. With very little required reading or writing and more emphasis on doing and creating, the students were given more diversity in their otherwise fairly similar class routine. Thirdly, the students sensed that they were pretty much on their own in this class with only distant deadlines to worry about. They tended to view the teacher as a resource person rather than a dictator or tyrant. Finally, for various reasons, they felt that screen education courses were "easy."

What follows is a series of student responses to five categories of questions put forth to them by the interviewer:

1. Positive reactions to the screen education program:

   You don't get stuck in the same classroom all the time ...
you can be more yourself in this course. The assignments are varied; you don't know what to expect, and that's good. More than in any other class, it gives you the chance to express your opinion. Teaches you techniques you'll be able to use in the future. It lets you think up your own things. Informal atmosphere allows you to set your own pace and to develop your own interests. It has helped me to do things on my own. It has given me more confidence in expressing opinions to others. If anything grabs the kids, it's that it's so free. People take advantage of the freedom, but they are slowly learning. In all my other classes, you have to sit, be quiet, and listen—and hate every minute of it. If all the courses were like Communications, school wouldn't be half bad.

2. Negative reactions to the screen education courses:

Sometimes it gets awfully boring. Once projects are finished, you just waste time waiting for film to be developed. Too many people get away without doing very much work. A bunch of kids are allowed to go through the motions and aren't learning anything. Very limited area in which to film. More time needed to work on assignments. Not enough to do. If you work too fast, you have to wait a lot for the slower ones.

3. Reactions to the screen education teachers:

He lets you use your own judgment. Once you learn to use the freedom, you don't want to keep taking advantage of him. I feel awful when I do that. He's not a grouch like most teachers. All the other teachers treat you as a bum; they (the screen education teachers) give you a chance and don't always force you to sit down and work. They are more friends than teachers. You can go up and talk to them. The teachers don't scream at you every five minutes. They seem to understand. You feel like helping him all the time because he helps you. They guide you but don't always tell you what to do. He talks at your level, not down to you.

4. Reactions to working in small groups:

You learn different things about people you work with. You don't do that in other classes; you just sit down, be quiet, and do your homework. It's hard to work together when everyone wants their own ideas most of the time. Shows you how important it is to organize and plan ideas. You learn to respect other people and their ideas. If everyone works, it's great. Some people loaf and don't help out. You have to be careful that kids don't sponge off you all the time.

5. Reactions to speaking up in class, having one's voice recorded, or being filmed:

We have learned to share critical judgments with our friends, although it is very hard at times. Some of the kids appear frightened and scared to share their opinions with others. Filming is O.K., but I don't like my voice recorded. It sounds funny when it's taped, and I don't like the sound. The girls mind much more than the boys. I often make a terrible fool of myself. Some kids say they don't want to be filmed, but they really do; it just is a lack of self-confidence. It was hard at the beginning of the year because it was a new experience.
6. Miscellaneous comments:

Screen and Society is not bogged down in facts. It lets you find out on your own what the facts are . . . . Most of the kids who take screen education do so because they think it is a half-credit for nothing . . . . The screen education courses are taught like you were in college . . . . It should be harder to get into the screen education classes; too many kids get in just to cause trouble . . . . I've been thinking more and more about getting into a job related to screen education; working in construction seems like a drag now . . . . We'll have more ideas to use when we go back into regular classes . . . . In screen education, you say what you want; in other classes, you say what the teacher wants.

In addition to these comments of the students which pretty well speak for themselves, several observations and conclusions were made by the interviewers. The student interviews were a very effective device for obtaining pertinent and forthright data. The subjectiveness and freshness of the students' comments is hard to obtain by other means. The interviewers were impressed by the enthusiasm of the students about their participation in screen education. The feeling that their particular course was enjoyable and not grinding work permeated most interviews. Many students implied that they did not feel pressured by the demands of the teacher, surprise quizzes, or repressive discipline. One could relax more, it seemed, and this the students felt fostered creativity and freer expression.

A majority of the students had invested enough of themselves in their particular class that they were disturbed by the minority of students who took advantage of the freedom of the course and were giving the course a bad name among fellow students and the faculty at large. The students who were doing the best work were especially protective about screen education and were attempting to improve the image of the Project.

The interviewers noted the satisfaction and pride the students had in making a film, tape, slide sequence and video tapes. The fact that they had made something with their own hands and could get direct positive feedback on this from their peers and teachers, was exciting to them. By being creative and by creating, these students were directly exploring the boundaries of who they were. It is suggested that the college bound student, with the lack of manual courses built into his curriculum, perhaps experienced these feelings more than the students who had previously been enrolled in the more nonacademic type of course. Moreover, several students expressed the newly-acquired insight that one could "learn by doing" and that books were only one means of disseminating knowledge.

Finally, some mention should be made of the students' reaction to being photographed, filmed, and taped. The students felt that talking up in class was no problem, but that recording their voices or being filmed caused much anxiety and withdrawal. They could not articulate why they felt this way, but several possibilities are suggested. One has to do with peer awareness and the desire to "come across" to others in an effective and positive manner. By reading a prepared statement, for example, there are too many chances for error and hence a loss of status among peers. Concomitantly, there is a loss of self-esteem as the adolescent is in a very self-conscious stage of development. Any loss of esteem is a threat to his perhaps somewhat tenuous positive identity and he seeks to avoid such incidents. When he hears himself on tape, for example, he is apt to be much more critical of his voice than
he is when he talks randomly in the class. It may also be that people's fears of being recorded on film or tape (and it is not only the young who fear it) are much deeper-rooted; there may well be a link with primitive beliefs that we surrender our "essence" when we allow others to "take" any part of us, even our names or images. In any case, this whole concept of inhibition needs further investigation, as these few thoughts are no doubt only one aspect of a very complicated phenomenon.

One recommendation can be made regarding student inhibition: that is for the screen education teacher to be aware of, and sensitive to, the feelings of his students in this type of situation. Especially during the initial weeks of a course, preparing the students and desensitizing their fears of exposing themselves, might assuage this problem for many.

Student Evaluation Questionnaire

Fundamentals of Film: Ninth Grade

One of the instruments used in the evaluation of the students in the Project was the Student Evaluation Questionnaire. The Fundamentals of Film course was offered to freshmen students during the academic year 1967-68. Thirty-one students from two separate classes completed the Student Evaluation Questionnaire for this course. What follows is a discussion of these responses.

Consistent with the trend that will emerge as the other course evaluations are summarized, the students reacted favorably to the Fundamentals of Film course. Also consistent with a pattern of the majority of most screen education classes in this project, the students judged film-making as the activity they most enjoyed during the year. A total of fifteen students rated film-making as their most referred activity, while film-viewing was rated as the most preferred activity by twelve students. The third most popular activity involved the use of still camera work.

In terms of what the students disliked about the course, very little can be said. Probably due to a "halo effect," the students, in most instances, were reluctant to criticize the course or their teachers, even though the questionnaires remained anonymous. Two major dissatisfactions were recorded, however, and these were in the area of reading/writing and class discipline. A large majority of the students did not feel that more reading and writing assignments should have been given, and seven students indicated that what they disliked most about the course was the reading and writing that they did. The other most-criticized aspect of the course was that there was not enough control of the class by the teachers. This viewpoint was expressed by a minority of the students, but, as will be seen, this criticism was voiced in nearly every class. On the other hand, a suitable number of students enjoyed the maximum freedom allowed in the screen education classes and felt that more teacher control would have inhibited the spontaneity of the class. More will be said about this problem in the concluding portion of this section.

In evaluating their teachers, the Fundamentals of Film students gave them a strong endorsement. All but two students rated their teacher as "good," a fairly strong consensus. The reasons behind this positive reaction to the teachers were gathered from responses to the question: "What I liked most about my teacher." Nineteen students felt that the teacher was "one of us" or "could understand us" or "was for us." In other words, they felt that their teachers' outstanding characteristics were that they could really communicate with the students, had the ability to emphatically understand them, and were people who could be trusted.
Generally speaking, the students gave similar responses to questions tapping the purposes of the screen education course and what they learned from it. Almost three-fourths of the students felt that the understanding of films and film techniques was the primary purpose of the course. Most of them substantiated this by saying that what they learned from the course was "how to use a camera," "how to make a film," or something similar. Another interesting response that emerged was the fact that some students felt that the most important thing they had learned during the year was to express themselves better and in different ways.

Finally, some comment should be made on the popularity of the course among the freshmen. Nineteen students reported that Fundamentals of Film was their favorite course, and all but two said that they would like to enroll in another screen education class.

Screen Fundamentals: Tenth Grade

The Screen Fundamentals course was offered during the second year of the Project for sophomores and for one semester only was evaluated with a slightly different student questionnaire from that used the previous year for the Fundamentals of Film course. However, the overall results are similar. Although the first semester course was not evaluated by the students, it is assumed that the fifty-three second-semester students who responded to the questionnaire were a representative sample.

Most students had a favorable reaction to the Screen Fundamentals course. The majority of the students were fairly well divided as to what they liked most: Twenty-one responded that the making of films was the most enjoyable, while nineteen felt that the freedom and informality of the class was the most significant aspect. When asked what they would have liked to have seen done differently, the students were again reluctant to criticize the course in any detail. About one-third offered suggestions for change, the most frequent request being that for making more movies and slides. With another strong rejection of reading and writing, some comment seems appropriate on this phenomenon. As will be brought out elsewhere, the students in screen education tended to feel that they had enough, or too much, reading and writing in other courses. This might imply that they enjoy working with their hands more often, and using equipment such as a camera, projector, or tape recorder.

In evaluating the teachers, the students continued the trend of favorable reactions. The reasons for this vote of confidence are varied but some clustering did occur. In descending order of frequency, the two teachers were judged effective for the following reasons: Ability to understand and communicate with the students; their knowledge of the subject matter and their ability to teach this knowledge; their organizational expertise that kept the class involved in a project until completed; and the freedom that they allowed the students. In terms of ineffectiveness, only a minority of students chose to say anything about the weaknesses of their teacher. However, on a forced choice question that asked if "More class discipline should have been enforced by the teacher," nearly 50 per cent of the students of one teacher agreed with this statement. Thus, if any one quality of an ineffective teacher were to be decided upon, it appears that failure to set and enforce limits within the classroom would be the primary one.

In assessing what the students learned from this course, "film mechanics" or "film understanding" best summarizes the responses. Under these headings are subsumed such skills as using a camera, the use of light, shooting from different angles, editing, and so forth. What this
tends to imply, moreover, is that this course did in fact teach screen fundamentals.

Two questions were asked regarding the best and least liked projects or activities assigned during the semester, in an attempt to determine if any project or type of project was clearly better received than others. In the final analysis, however, the results of these questions proved inconclusive, as almost every activity done during the semester had proponents and opponents.

It is interesting to note that while thirty per cent of the students did not feel the course relevant, only ten per cent indicated that they would not like to take another screen education course. Thus it can be suggested that relevancy is only one criterion by which students judge the value of a course.

Generally, the students did not articulate any specific way in which this course had influenced their attitude toward other classes. Those who did respond, however, felt that the primary influence of the screen education course was to make them more aware and less tolerant of the restrictiveness of their other classes.

When asked to rank-order their three favorite courses of the year, thirty-five of the fifty-three Screen Fundamentals students placed this course at the top of the list; eight placed in second; and three placed it third. Mathematics, History, and Science courses were most frequently named as other courses well-liked. It is to be noted that only eight students did not record Screen Fundamentals as one of their three favorite courses.

The use of small groups was very well regarded by the students in this course. This attraction can be explained by two major factors. As an open-ended question revealed, the students felt that small groups are not more efficient in getting things done but that they also allow for more self-expression and the sharing of ideas. Thus, the quiet members of the class seem to welcome the opportunity of having a more intimate and less threatening atmosphere in which they can speak up.

Communications: Eleventh Grade

Since Communications was offered to juniors as a two-semester course for both years of the Project, it is possible to write up a composite student evaluation of this course. A total of seventy-one questionnaires were completed by Communications students. The results follow:

As with the other screen education courses already evaluated, a large majority rated this course in favorable terms. Also consistent with the previous pattern, these students felt that the actual production of a film was the strongest aspect of the course. Fifteen per cent felt that the viewing of films made the course enjoyable while another fifteen per cent liked the course because of the freedom it offered. In terms of what they would have liked to have seen done differently, the majority of the respondents felt that more film production and concomitantly, more use of filming equipment would have improved matters. Again following a pattern, the students rejected the addition of more reading and writing. This further implies that they tend to respond favorably to a course that does not emphasize traditional mechanisms for learning.

The teachers of the Communications course during the two years of the Project were highly rated. By far, the most frequent quality of the teachers felt to be responsible for effective teaching was the individual
teacher's ability to communicate with and understand the students. Other qualities were singled out, and in descending order these include: teaching skill; being relaxed and easy going; having thorough knowledge of the subject-matter and the operation of the equipment; and being interested in what the class was doing. As previously mentioned, the students were somewhat reluctant to criticize their teachers; as a result, little data were gathered on the ineffective qualities of the teachers. The only critical response was that a teacher did not control the class well enough.

Indeed, close to fifty per cent were of the opinion that more class control was desirable. Thus, there appears to be a division among the students as to whether a screen education class should be run along the more traditional authoritarian lines or run with a large degree of freedom and self-responsibility that may be somewhat novel to the student.

In terms of what was learned during the year, the majority responded by mentioning increased or new skills in manipulating or understanding the various media of film, photography, television, and radio. This learning involved not only the actual "how to" skills of using equipment but also what communication is and how it can best be understood. Thus, it is not surprising that seventeen of the students also indicated that they had learned how to communicate better on an interpersonal level.

As far as the relevancy of the Communications course is concerned, two-thirds agreed that the course was relevant to their everyday life while the remaining third did not feel that this relevancy existed. Consistent with the Screen Fundamentals group, however, a much larger group (eighty-five per cent) expressed an interest or strong interest in taking another screen education course. This can be explained, for the most part, by the fact that seventy-five per cent of the class rated Communications as their favorite course. Most of the juniors did not feel that this course had influenced their attitude toward other classes but of those who did express an opinion it was one of less tolerance toward their other courses. It is suggested, therefore, that the freedom of the screen education class makes it harder for some students to tolerate the less free classes.

Finally, the Communications students agreed with the Screen Fundamentals students that the small nondirected group is not only the most enjoyable way of spending class time but it is also an effective and efficient way. Moreover, these students felt freer in the small group than when with the whole class, and therefore felt that more creative ideas emerged and had a greater chance of being accepted.

Screen and Society: Twelfth Grade

Like the Communications course, the Screen and Society course for seniors was offered as a two-semester course, in both years of the Project. What follows, therefore, is based on seventy-two student evaluations from seniors who had completed the course.

The predominant reason why the large majority of seniors liked this course is the freedom it afforded them. This response was particularly true of the 1967-68 classes, since they did less film production than the second year students. Film production and film viewing also rated highly as reasons for liking the course; close to fifty per cent of the students indicated one of these areas on the questionnaire. The relaxed and informal atmosphere of the class was also commented on with some frequency, and it appears that this component is a concomitant of the
freedom mentioned immediately above. The students did not express any major criticism or dislike of the course, only a minority made any comment on this question. Criticisms were fairly individualized, although requests for filming, more to do, and more equipment were each mentioned several times. Consistent with the other screen education courses, the overwhelming majority of students did not think that increased reading or writing assignments would have improved the course.

In judging the effectiveness of their teachers, the Screen and Society students, for the most part, judged them effective or very effective. Once again, the teachers' ability to communicate with and understand the students was the most common reason for judging the teacher as effective. Other qualities were observed, as follows: the personality of the teacher; his knowledge of the subject matter; his allowing freedom in the classroom; his patience; and his interest in the class. Most students did not choose to state what they felt was ineffective about their teacher so no data are available for this category. The seniors, more than any other group, did not want more class discipline enforced by the teacher; more than seventy per cent of them felt that the amount of class control should not have been increased.

Due to a different emphasis in teaching plans, the first year students felt that they learned more about society through the medium of film, while the second year students felt the most significant knowledge they acquired was in the area of film and media techniques. The third most frequently mentioned learning experience was that of improved communication. Fifteen per cent felt that they had learned how to improve their communication skills as a result of this course.

In terms of favorite projects and activities, the seniors fairly consistently put the following categories in rank order: film production, film viewing, picture taking, and tape recording. Their dislikes were quite varied, and no one project or activity was singled out. In any event the drawbacks were minimal, and this can account for the fact that eighty-five per cent indicated that they would like to take another screen education course. Regarding relevancy of the Screen and Society course, the first-year students felt the course was relevant by a margin of twenty-five to three, while the second-year students felt it was relevant by a margin of twenty-six to eighteen. Thus, it appears as though the first-year course offered more applicable knowledge to the student than did the second-year course.

The Screen and Society course did not influence the students' attitude toward other classes to any great extent. For those that reported some influence, the change in attitude came about in the areas of desiring more freedom in other classes and being less acceptant of the education they were receiving. The seniors felt, as did the sophomores and junior students, that the nondirected small group was an effective means of structuring the class. The seniors' reasons for this affirmation stems from several aspects of small group work. According to these students the small group is desirable because it is an efficient device for getting things done, it encourages cooperation and working with others, and it allows for more self-expression and creativity than the traditional classroom affords.

Summary

Five general areas were evaluated by the students on the Student Evaluation Questionnaire.
First is the overall reaction of the students to the specific course in which they were enrolled. Quite consistently, the students reacted favorably to all the screen education courses. Although they were considered "relevant" by about two-thirds of the students, an even larger majority was interested in taking another screen education course in the future. Note that a majority of the students felt that their particular screen education course was their favorite course of all taken that year.

A second area investigated was the rationale behind the student like or dislike of a specific course. The reasons for the students' positive attitude toward their course were varied. For the most part, the students enjoyed producing something concrete such as a film, tape, or slide sequence. They also enjoyed the freedom of the classroom and its structural difference from their other academic courses. They did not want the course to emphasize more reading and writing; what they would have preferred was to have more film production assignments and to have more films screened in class.

A third area evaluated was the effectiveness of the screen education teachers. With few exceptions, the students judged the various teachers as being either effective or very effective. The reasons for this center on the teachers' ability to communicate with and understand the students on their (the students') level. Teaching skills, knowledge of the subject matter, interest in the class, a sense of humor, organizational ability, and patience were also frequently identified as qualities that made a teacher effective. Only a minority chose to point out any ineffective qualities in their teachers, but note that the one trait consistently singled out was that of lack of control of the class. The majority of students did not want more class control, but a sizeable minority felt that mere discipline and order in the classroom would have improved the learning climate.

A fourth area explored dealt with learning content. At all three levels, the knowledge acquired usually focused on media techniques and skills. These techniques and skills no doubt constitute the most enduring knowledge retained by the students. Such skills as handling, loading, shooting, and general operation of a camera, the use of light, the importance of angles, writing scripts, editing, tape recording, were frequently mentioned when students were asked what they learned from the course. The most popular project or activity was, of course, the production of an original film in which the students had almost complete responsibility.

A fifth area examined was that of the manner in which time was used. The nondirected small group was by far the most popular and reportedly effective way of structuring class time. These groups apparently reinforced the students' feeling of freedom and autonomy, enabled him to become more expressive, and to some degree became an efficient means for accomplishing tasks. Further, the small groups increased interpersonal contacts and made work more enjoyable since it was being done with peers.

Some concluding comments are pertinent here. For several reasons, it is believed that the results presented above are somewhat biased or skewed in a favorable direction. One factor leading to this conclusion is that students are rarely encouraged to critically evaluate their educational experience, much less openly criticize their teachers. This, then, may account for the paucity of responses to the questions asking the students to point out the weakness of the course, the teacher, or the class structure. One must also be cognizant that, when compared to the traditional academic course, screen education courses and classes seem easy and fun. Because of this the intrinsic worth or true value of each screen education course was hard to assess, due to the context in
which it was being evaluated.

Beyond this inescapable drawback, however, the Student Evaluation Questionnaire did underscore the popularity of the screen education courses as well as provide first-hand data from the students regarding the more general aspects of the Project.
CHAPTER IX
THE PRINCIPAL INVESTIGATOR'S COMMENTARY AND ASSESSMENT

The Project's Achievements

As can be seen in Chapter IV and VI, the preliminary achievement in all classes was the development of new basic skills in communication areas which most young people see as relevant to their present and future world. The vitality and creativeness of student films, slides, tapes, etc., were a constant source of pleasure to the Project staff, especially when it was fully realized how basically "nonstudious" were their creators. Allied to this was the spontaneous, uninhibited, and extremely valuable expression of student viewpoint evoked by the Project, in discussions, interviews, and exchanges of all kinds—communications of increased significance when the specialized nature of the student is taken into account. That the overall tone of these is enthusiastic, and very practically sympathetic to the Project's problems, is a major cause for claiming general success.

It would appear that the highest degree of progress was achieved with the youngest classes in the North Reading Senior High School. (The experimental course in the sixth grade, although similarly indicative, was too inconclusive in range to be fully significant.) The senior class, especially in the second year, only slowly relaxed their hostility and suspicion, although it is notable that their cooperativeness and work improved immediately after they were given practical production assignments.

In the area of increasing discrimination, as opposed to that of expression, there is less immediate evidence at hand. But, if perceptiveness is a first step towards discrimination, there seems little doubt that its articulation was facilitated. (See, for example, Mr. McVinney's account of his Communications class's study of advertising and the tests compiled by Mr. Powell in his Screen Fundamentals class—Chapter IV.) The Project can claim to have provided its students with a new vocabulary for appraising their environment, and with an atmosphere conducive to the reexamination of their past and present experiences.

Finally, in the very difficult area of self-awareness and improved self-image, it would seem that there is indeed some justification for the claim that Screen Education can help here (see Chapter VI), probably in providing new possibilities for successful challenge to students beginning to be conditioned to failure in traditional educational situations.

Approaches and Methods

From a consideration of the various methods employed by different teachers in a variety of classroom situations, it must first be emphasized that the nature of the particular media phenomenon being studied must condition the approach employed. Screen education today (see Chapter I) is increasingly an "enquiry-based" approach to material that is,
for the most part, evanescent and constantly shifting in form. Thus, no rigid heuristic style can, or should, be laid down, applicable in all situations, or by all teachers.

In general, the Project used extensively the following approaches:

1. The "Practical" Approach. Wherever possible, students were invited to engage in practical activities related to a particular media phenomenon, activities which would result in a tangible product, in the creation of which they could feel some sense of personal involvement and achievement. Even where the line of enquiry was of a traditional "research" nature (the 1968-69 Communications class's study of radio), there was encouragement to produce artifacts rather than traditional written, or spoken, "reports."

2. Small-group Work. Rightly or wrongly, it was decided to emphasize this aspect for two main reasons: It broke the traditional mold of classroom "teacher-lecturing"; it forced students into involvement with each other that they might not have achieved in other ways. Group work is not, unfortunately, a major part of most existing classroom activity. The average student regards his classmates more as potential competitors than as cooperators. Thus, the disciplines of controlling one's peers both as actors and technicians (and of the acceptance of control, which is the converse) represented a major hurdle to be overcome in many production projects. Other aspects of this method have been discussed by Mr. Cloninger in Chapter VI.

3. Joint Goals. Not only was it necessary, in such group work, for the students to establish and work towards joint goals (perhaps reorienting them as the work progressed): The teacher himself shared in the process, refraining from authoritatively setting the goal in the first place and acting only as a more resourceful team member whose views should be taken into account with others. (See, especially, Mr. Powell's account of the Film Production class in Chapter III.)

4. Utilization of Skills from Other Areas. In the pursuit of these group goals, it was continually made evident that skills and knowledge gained outside the Screen Education class not only could but should be brought into play. Obvious as this may seem, it frequently struck students with the force of great novelty, since they had become conditioned to what might be called "the watertightness of subject areas."

It will be noted that all the above approaches are part of the "methodology of the media"; that is, they correspond to the ways in which films, TV, etc., are produced in real life. Thus, as stated earlier, the nature of the subject matter conditioned the approaches employed in its study.

The Goals of Screen Education

As pursued in the Project, two main goals of screen education evidence themselves: (1) the acquisition of skills of expression, and (2) of discrimination.

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1It is probably of some significance here that in North Reading, as in many other systems, "classes" are mere temporary groupings of individuals brought together for one subject. They have no permanent basis or base, not even a "homeroom," and, therefore, have only a minimal sense of group identity. Contrast a system wherein students are grouped in a class which remains relatively intact as a unit throughout its school life. The
1. **Skills of Expression.** At the simplest level students can appreciate that they are learning "how to ..." skills--"how to ..." make photographs, slides, tapes, films, etc., not merely in terms of button pressing and knob-turning (although familiarization with machinery is a necessary, and important, first step) but in terms of more aesthetic areas of composition, of timing, of juxtaposition, etc. Progress here comes from practice and criticism (from peers and teacher alike) and is readily perceived by the learner, who will also acquire, largely unconsciously, the minimal technical vocabulary necessary to both describe and discuss his activities and products.

This initial learning is best achieved at the earliest age practicable; the longer it is delayed, the more it will be inhibited by self-consciousness and by the disguised fear of failure. The Project results indicate that the sixth-grade students are not too young for this and that the tenth-grade students are still open to accept these elementary experiences, although already evincing some of the "turned-off" attitudes which characterize later age groups.

If the "how to ..." lessons remained only this, however, they would quickly pall for the majority, as do most adults' efforts with snapshot photography, home movies, etc. The technology provides a clearer facsimile of reality than can be achieved by writing, drawing, etc., but snapshots and home movies are merely convenient forms of preserving personal memories--souvenirs that hold meaning for the individual directly concerned but that fail to communicate fully with others. Also, of course, the very occasions of shooting and recording can merely become experiences pleasant in themselves because they are not normally achieved in school. (Children often suggest subjects for a project which are, in themselves, desirable activities--beach parties, classroom revolts, etc.) The resultant photographs, films, etc., are then valued for what they memorialize rather than for their intrinsic merit.

The next step, therefore, is essentially one for the teacher to introduce as early as possible--the recognition of the need to communicate to others, not merely to oneself nor even one's immediate cronies involved in the same experience. (In practice, as the Project showed, this aspect can be continuously emphasized from the earliest exercise onwards.) Thus, the skills of preparatory planning--imagining in advance what the experience will be and then deciding what aspects of it shall be selected and emphasized--require to be learned and fostered. After the initial experiences of recording uncontrolled activity in the "how to ..." phase, it is essential that the students realize how this can become incoherent without such preparation and control.

With young, or immature, students, a useful device at this stage may be to temporarily abandon the recording of "real" people (whether engaged in actual pursuits or in acting in stories) in favor of simple, manipulable things. Still photographs of objects (statues, buildings, machines, etc.) and sound recordings of preexisting noises (which can include radio and records) lend themselves to greater student control and manipulation; but the most satisfactory form here is undoubtedly simple film animation of small objects. (While not suggesting here that the art form itself is an immature one, it is notable how closely the themes of such films approach the fantasies of young children's play: Dolls, toy soldiers, cars, etc., can "come to life," approach, chase, fight each other, and disappear at will, with satisfying screen results.)

latter system has its own disadvantages, but it at least provides its members with the necessary sense of continuous "belonging."
Similar animation work may yield results with older students, but they are often impatient with such "play," and seek to engage themselves with the larger realities of life as they see them. Hence, the necessity of acceding to their choice of theme, while stressing the need for its efficient communication in the chosen medium. Sympathetic criticism of the form rather than the content of first efforts and concentrating on such questions as "does it show what you wanted to show?" and "how could it have been shown better?" can lead to acceptance of the disciplines of prethought, storyboarding, organization of props and actors, etc.

It should not be assumed, however, that these are simple skills, quickly learned; there are many students (indeed, many adults) who fail to recognize that enthusiasm is insufficient in itself, that problem-solving requires experience, imagination, concentration, and that (in the case of the social arts with which screen education is largely concerned) it requires a cooperation between people, a democratic ideal which, alas remains largely unattainable in all our affairs. (See comments in the section on Approaches and Methods, 2. Small-group Work.)

The process of editing (which, of course, is by no means restricted to film) is another new and difficult concept for young people, who seem to have been encouraged by their education and environment to seek the immediate gratification of a simple, spontaneous act rather than the deeper satisfactions of long-term, disciplined labor. With the modern media, it is, ironically, the apparent ease with which one can achieve satisfactory initial results that tends to discourage desire to polish and shape a finished product. There is, indeed, a belief widely held among young people that roughness and crudity ("spontaneity") are to be prized as evidences of "sincerity," as opposed to the highly-crafted, but "contrived and insincere," products of the Hollywood and television entertainment machines. Several accounts of methods employed by project teachers to inculcate concepts of editing are to be found in Chapters III and IV, and Mr. McVinney's comments on his Communications class's encounter with television professionals (Chapter IV) indicate how misconceptions can be countered by introducing "outside experts" into the classroom.

2. Skills of Discrimination. Discrimination is defined in the Shorter Oxford Dictionary as "the power of observing differences accurately." Herbert Read has spoken of "the activity of observation" as being one of the two activities which are essential preliminaries to the act of appreciation, the other activity being that of self-expression. A major task of the Project teachers, therefore, was to ensure that what the students saw and heard via the media was brought under conscious scrutiny and assessment. If the results of such observation are to be articulated and recorded in verbal modes (as opposed to the very striking evidence accumulated in students' media expressions), it is necessary for a vocabulary of appraisal to be taught. This was probably best achieved formally in the Screen Fundamentals course (see the section on "formalized instruction" and the final assessment of the course in Chapter IV). But, in a less formal fashion, it was absorbed naturally by all the students who became engaged in production projects.

In general, it was found that lessons which depended on the viewing of films as their primary activity seemed to have less impact and value than those in which practical work was emphasized. (But note Mr. Cloninger's remarks about the magnetism of first-rate films, in his section on Classroom Observations, Chapter VI.) In general, it appeared that the artifacts of the adult world--musical, graphic, screen, and print

alike--had minimal interest for the students, who responded only to their grosser aspects (beat, noise, bright color, fast motion, etc.), and in semi-articulate fashion. When pressed, they gave evidence that specific, subtler aspects had not indeed escaped them, but they reserved their close attention for their own, and their peer-group's work.

There seems little doubt that the almost nonstop bombardment of eye and ear now directed at us from birth onwards by television, radio, Muzak, etc., has caused a defensive dulling of young people's perceptive curiosity. But this, it would seem, can be rearoused when they are given expressive opportunities of reappraising their environment through the media. The results of the modification of the second year's Screen and Society course are a good indication of this.

An allied implication of the teaching of discrimination is contained in such phrases as "the discriminating man," an assumption that, once having observed differences, the individual will make a choice, presumably of "the best." Schools have hitherto assumed that one of their most important functions is to show what is/was "best," adducing evidence to support the superlative, and to have expected this experience and understanding to stand firm as a guideline for the future life of the student.

This was probably a valid approach when access to most of men's communications through the arts could be obtained only through schools and allied "establishment" institutions (libraries, museums, etc.). It was possible, then, for authoritative choices to be made of what should be presented and justified and, conversely, of what should be suppressed from the majority as liable to "corrupt" them, that is, to cause them to question the "right judgment" of the elite. This assumption has been neatly summarized by Gordon Brumm-- "that whatever the professor knows and teaches, is therefore more valuable than anything else which might be taught in its place."3

Today, however, this assumption is increasingly called into question by the overwhelming flood of communication experiences brought to us all by the "mass media." The challenge would seem to be to reexamine hitherto-held concepts of "best," matching them against young people's preferences and judgments, without prejudice to either. In the process, some standards may have to be modified, but those which are continuingly valid will surely be strengthened. The Project demonstrated that this kind of discriminatory process can probably best begin in the context of media education.

The Students

Perhaps the most immediately-striking aspect of the Project is the late realization that the students assigned to it were so atypical. Until the results of the "T.E.A.M." investigation were made available during the second year, there was little firm evidence to support the Project staff's growing impression that the bulk of the students might be unduly weighted towards the "dropout" end of the scale. This, in the investigator's view, makes the considerable achievements of the students, and their teachers, all the more remarkable and goes a long way toward underlining the claims that screen education can make school a more meaningful experience for those whom the traditional procedures

and postures seem to have failed. 4

Nevertheless, it was not the intention of the Project to specially cater to the less-than-average student, nor were special measures taken in this direction, since this would merely reinforce a widespread, but fundamentally erroneous, notion that screen education is some kind of "remedial program." This, as Mr. Cloninger points out in Chapter VI, may well be in danger of becoming a self-fulfilling prophecy.

There is, however, a very real problem involved, to which there is likely to be no immediate solution. If, as is likely in most places for some time to come, screen education classes are restricted in number and/or scope, the question arises as to what kind of students should be given preference.

To restrict entry to those who show particular aptitude in traditional academic areas would undoubtedly facilitate teaching and produce results in terms of student work which would enhance the reputation of the subject. Such a step would be welcome in higher education too, where increasing demands for "Film" and allied courses are being made by students who, at present, have had no basic training in nonliterary modes of communication, and who have to begin such studies in college at an unusually elementary level.

But merely to create yet another "educated elite," especially in a subject area with such widespread appeal and contemporary significance, would surely be to sacrifice the ideals of screen education on the altar of expediency. Neither is there any evidence yet that those whose talents and aptitudes run on accepted lines can make any greater contribution, or are any more responsive, to the screen media than those less traditionally-oriented. On the other hand, there is, indeed, a case for the "remedial" aspects of screen education, especially when in the hands of a sympathetic, experienced teacher whose interests and skills incline him toward a concern for the "underprivileged." Evidence abounds to show that film production, in particular, benefits youngsters of this type enormously,5 and it will be recalled that two of the Project's most successful films (Fitzie's Flunkies and The Rise and Fall of Ralph D.) came from students with reputations for being "difficult" (see Chapter III).

But to concentrate exclusively on such students would be to run the risk of creating an elite in reverse, a "ghetto" grouping of malcontents turned in on themselves and their problems and suffering, perhaps, from that sense of being disregarded and undervalued which is so evident in the remarks of some of the students interviewed.

Part of the solution might be to provide as wide as possible a spread of media education classes at the lowest feasible age level, before attitudes have had a chance to harden unduly. In this context, the decision to appoint a full-time screen education teacher to the Junior High School at North Reading would seem sound. It will be recalled, also, that the greatest general success of the Project seemed to be with the freshmen and sophomore classes.

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4 Evidence of widespread dissatisfaction with traditional school practices, on the part of faculty as well as students, continues to multiply, and there is little need to catalogue here the books and articles that have appeared on this subject since 1967. A useful summation of the world situation appears in the April 1969 issue of the UNESCO Courier (Paris), which is devoted to the subject "Youth 1969."

5 See, for example, the outstanding work of Rodger Larson's "Film Club" in New York City.
It would appear that selection procedures themselves might have to be reexamined in the light of the special demands and challenges posed by screen education. Based, as these generally are, on the kinds of verbal/logical criteria discussed by Kuhns (see Chapter I), they may not serve well enough to distinguish those students whose needs are best served by new modes of expression and learning--students who might, in fact, be widely separated in intelligence, in traditional knowledge, and in skills, but who may be closely compatible in their visual, and other, competences.

Screen Education in the Curriculum

In considering how best screen (or media) education can be integrated into the curriculum, it must first be borne in mind that it is, by its very nature, integrative. In this, it parallels the study of English, itself involved in every other subject area.

But, although similar in this respect to English, it differs so much in almost every other respect that it is not necessarily a wise move to subsume it under that head. If for no other reason, there is always a tendency on the part of English teachers to adopt literary modes of approach most inapplicable to the screen media.

It is preferable, where possible, for screen-education electives to be established that spread, in terms of optional credit, across the boundaries of English, art, and social studies. Requisite, or desired, sequences of study can thus utilize screen-education approaches as a complement to verbal skills, as a vehicle for skills in the arts, and/or as a probe of society.

Most particularly, it would seem that the development of humanities courses offers excellent scope for the integrative qualities of screen education. Indeed, it may be used to help create such courses where they do not exist, by using the power of the new media to bring together curriculum areas at present disparate. Dr. Gerald O'Grady, in a thoughtful analysis of the place of what he designates "Media Studies," speaks of:

... the exploration of the creations, the aesthetics, and the psychological, social and environmental impact of the art forms of photography, cinematography, videography, radio, recordings and tapes within the broad framework of general education in the humanities. I would call Media Studies the 'new humanities' to distinguish them from the 'old humanities'--literature, drama, the fine arts, etc.--from which they often borrow and with which they continually interact, mutually influencing each other.

I would make a special plea that, in our curricula, the new never be separated from the old.6

As the Project demonstrated very clearly, screen education, or "media study," presents a promising alternative for those who need contemporary skills of expression, perception, and discrimination, and also for those who prefer and/or benefit from "experiential" learning and teaching. The logistical demands which it makes can, in general, be most easily met by modular scheduling. It is particularly suitable,

probably, for the new "campus-type" schools, where students' time is less rigidly organized.

The Problem of Grading

Related to the introduction of screen education into a formal curriculum is the question of "grading" student work—a question which, in the Project, arose a number of times. Because, by tradition, the grading system has acquired an importance out of proportion to its practical value, it bulked large in the students' minds, and it was found necessary frequently to discuss and to clarify the question with them.

Early in the Project, three principles were adopted:

1. There are reasonably objective standards by which one can assess a student's acquisition of factual information.

2. Similarly, one can grade the development of his skills, particularly the communicative ones of speaking, of writing, and of the screen media:

3. It is not possible, nor desirable, to grade the student as a person—his attitudes, opinions, personality, etc. These attributes constitute his uniqueness as a human being, and uniqueness is, by definition, incomparable.

Since these three areas took priority in the Project in reverse order to the above, that is, self, skills, knowledge—grading had a diminished importance for the Project staff. But the students found it very difficult to understand this: They had become convinced that a grade was the sole measure of an individual and that, indeed, a grade determined the nature of the individual. Frequently, especially at the beginning, they found it impossible to appreciate that a teacher could hold them in total respect as a person but might find it necessary to allot a low grade to a badly-achieved, or scamped, assignment. There were even instances of naive "cheating" attempts on the part of some, and it is very difficult to cheat when all assignments are on an individual, or group, project basis.

A student would wrongly assume that a teacher's "unconditional positive regard" for him (to use Carl Roger's phrase) included a willingness to ignore his laziness, impracticability, or plain lack of knowledge. Only by dint of continued emphasis on the diminished significance of grades at a personal level, and on their true importance as measures of progress in knowledge and skills, did the teachers manage partly to overcome the sense of personal inferiority, frustration, and defensiveness which afflicted many of these children.

Perhaps the strongest antidote to the "grading syndrome" came from occasions when the students' work received attention and approval from outside the school, that is, when films and projects were shown to parents' meetings or to visitors, or when students themselves made presentations in other schools or at teachers' workshops. Exposure to unbiased, external regard was, for the students, the most valuable way in which they could determine the worth of their work.

It is difficult to suggest an ideal solution to the problem of assessment, which is necessary but can never be totally objective. Systems of "Pass or Fail" (which are grades in themselves), or of no grading at all, do not meet the very natural desire of all students to measure themselves against each other. The competitive element in human society is too strong to be ignored, and so is the human need for approval. It would
seem that an application of the principles outlined above, with continued emphasis and explanation of them, can help to assuage some of the anxiety occasioned by the traditional grading system.

The Teacher: His Role and Attributes

Since screen education places a heavy burden of responsibility on the teacher, it is appropriate that these conclusions should consider the vital part he has to play. It is, of course, no different in essence from that which, ideally, he should play in all education; but work of the kind attempted in the Project directs a sharp spotlight of enquiry on the teachers and on their strengths and weaknesses as human beings, as much as mere instructors.

The five individuals who, at various times and in varying degree, constituted the Project teaching staff would unhesitatingly accept a large measure of personal responsibility for its successes and failures. Since it would clearly be invidious to attempt to relate these to individuals concerned, it is necessary to adopt the device here of describing attributes, in full knowledge that no one—in screen education or elsewhere—possesses them all in full measure.

1. Sympathy and Understanding. Outstanding among the teachers' qualities praised by the screen education students were their abilities to understand and to sympathize with them. (It is disturbing to note that such praise is often accentuated by an accompanying, and completely unsolicited, expression of dislike for "other teachers," who have, it is presumed, not been so able in communicating their humanity.) Of almost equal importance, however, it seems to this investigator, is an ability also to recognize and understand the goals and routines of the educational establishment, especially where these may seem to be in conflict with students' desires and interests. It would be unreasonable to expect students to have commented on this particular aspect, but it seems implicit in some of their remarks about the need for teachers to be able to cope with administrative difficulties, inside and outside the classroom.

2. Sense of Relevance. More important, perhaps, even than the above, is a broad sense of the process and relevance of screen education: an ability to select and emphasize, from the wealth of information and experience which comes from any given media communication or expression, those aspects which most relate to the line of inquiry or that set of principles which, clarified, would enable the students to make their own sense of the media experience, of whatever kind. Often, it seemed during the Project, a teacher could become confused by the very richness of the material he or she was handling and would pass on this confusion to the students. Children are very alert to a teacher's possession of this faculty of seeing the wood through the trees, although they may not always articulate it. To communicate a continuous sense of purpose to students is a highly-developed skill, but they respond unfavorably almost immediately if they sense its absence. Generally, their responses take the form of "turning off," or otherwise abusing what they see as a simple lack of authority.

3. Self-Awareness and Personal Security. Since these were the Project's priority goals for the students, it would seem reasonable to expect them to be evinced in the teachers—and indeed they were in general. But it is possible, without going into details, to ascribe a number of classroom failures to occasions when a teacher's own sense of role became threatened by events, with a resultant loss of security on his/her part. With a fairly constant stream of visitors, observers,
enquiry and assessment, combined with the novel and often inflammatory nature of the work, there is very little excuse for this. There is no reason to suppose that any teacher can be totally immune, but screen or media education, by its very nature, may pose weightier challenges than are encountered in some other fields. It is important that its practitioners be mature in the broadest possible way. An essential aspect of self-awareness on the part of a teacher, for example, concerns his/her motivations toward teaching as a profession. No one should be unaware of the deep reasons why he or she is, in fact, attracted to this particular task in life, regardless of subject area.

4. Acceptance of Responsibility. In a field where so much depends on establishing and maintaining the proper rapport between student, subject matter and teacher, there is a great temptation for teachers to lean heavily on their desire to be "good guys," to hold student interest through friendliness and shared enjoyment. They tread a narrow tightrope in so doing. There is a time when students, quite justifiably, look to teachers for authority (to be authoritative, of course, does not mean being authoritarian) rather than stimulus, for learning rather than "fun". To miss the challenge of such moments courts disaster, not easily retrievable. It is likely that a combination of this and other factors may account for some of the lessened impact of the second-year Screen and Society courses. It is an issue which should be deeply considered in connexion with the oft-heard claim that "films turn kids on." They may do so initially, but it is the teacher's acceptance of his adult responsibility which will make the turning-on permanent and constructive.

5. Flexibility of Approach and Attitude. There are equally, however, other moments in the classroom which a good teacher intuitively recognizes as calling for a different kind of responsibility—that which hears, in the students' responses, a need for something other than that he has set out to teach that day. A topical event, an "atmosphere," a fortuitous incident, may affect the communication derived from a film or song; he may suddenly be resensitized to a new aspect of what the students are communicating about themselves and their "world-view"; or it may simply be a recognition that his lesson-plan is irrelevant in just that time or place. The need for flexibility in such circumstances is not of course confined to the teacher of media. But it is more likely to be demanded of him than in some traditional areas. It is a nice distinction he must make, between holding to a plan or temporarily abandoning it in favor of a more urgent call. There were many such moments during the Project which resulted in a closer awareness of the students as people, and their claim to a higher consideration than the subject matter itself (see Chapter VI).

6. Knowledge and Skills. There is an overwhelming range of information about the screen media and the allied entertainment, information and advertising industries, their history, techniques, social effects, major personalities and organizations, which should inform the ideal course of media education. In our present state, unfortunately, only a modicum of this is possessed by the average teacher, and it is often his or her sense of inadequate knowledge in these areas which contributes to the feelings of insecurity referred to earlier. The Project teachers were, in general, much better equipped in this respect than many, yet all would admit to "information gaps" in most of the above areas. The close interrelation of the teaching team and the other Project staff was helpful here, in sustaining and informing each other, as was the willingness to enter into areas of "search" (as opposed to research) which involved learning with—and from—the students.

Mere knowledge of factual details, no matter how extensive, is not enough, however, especially since, with contemporary and frequently
ephemeral phenomena for subject matter, their details are constantly multiplying and/or changing. Certain basic skills, over and above those normally possessed by teachers, must be acquired—and not merely in the handling of media tools such as projectors, cameras, recorders, etc. The teacher who hopes to gain and retain essential respect from students must demonstrate his awareness of how pictures may be composed, shots lined up and edited effectively, sounds and music selected and juxtaposed, etc. Again, these are matters not yet normally included in teacher-training courses.

It is not without significance that the teachers engaged on the Project fell into two groups:

1. "Traditional" teachers who needed—and were acquiring—media knowledge and experience;

2. "Media students" who were encountering traditional education concepts for the first time.

Each group had its strengths and weaknesses, and a blend from both areas is clearly desirable. But it would seem from the Project experience that the young person knowledgeable and enthusiastic about modern media may stand a better chance of absorbing good pedagogic skills than the teacher steeped in traditional educational theory and practice may undertake what, for him, can represent an esoteric and daunting new study.

7. Enthusiasm. It has long been a prime tenet of screen education that teachers who undertake it should have, not merely a respect for the screen media and their potentialities, but a positive ability to enjoy good examples of contemporary films and television, and to communicate that enjoyment. Nothing which occurred during the Project caused one to question this premise, but it should be amplified to include a willingness to respond to other contemporary modes, especially music. It may well be that—in this latter field especially—detailed and up-to-date information may repose with the students rather than the teacher; but a general sense of the pleasure which can come from modern work by groups such as The Doors, The Jefferson Airplane, The Rolling Stones, must be felt and evinced, very often before the teacher can develop in the students similar feelings of response to the work of the "more respectable" past.

8. Ability to Plan and to Organize. A most important attribute of every good teacher is, of course, his ability to undertake the most efficient organization of his and his students' time, energies, and resources. The changing role of the teacher in media education demands that he develop this ability to the highest degree, and he needs a very wide variety of internal reference, resource, and experience upon which to draw. It will be noted (Chapter VI, Classroom Observations) that problems of logistics were not always satisfactorily solved by project teachers, due to inexperience. Despite the astonishing technical advances which have taken place to make film, television, and other media directly accessible and manipulable, it remains true that, compared with the print medium which has been the staple of education for centuries, we are still at what might be called "an immediate post-Gutenberg stage" in terms of modern media, that is, a relatively primitive one. No amount of hopeful prophecy can gainsay the fact that, in the average school for quite some time to come, the novelty and unwieldiness of the modern media will constitute a negative factor. Unless teachers, at the earliest possible stage in their training, are given experience in practical planning and organization of the tools and artifacts of the media, it may be over-optimistic to expect a smooth integration of media
education into the known and traditional school patterns.

The Training of Teachers

The foregoing remarks lead directly to what may be considered the major issue arising from the Project—the provision of proper facilities for the training of media educators. As the Waltham Conference on Screen Education, Waltham, Massachusetts, put it:

To implement such programs (of comprehensive media education) teachers need modes of experience and training which are not adequate in existing institutions.7

Without, at this stage, going into full details, it would seem valuable here to set out the broad areas of knowledge and skills which should be possessed by media educators. Some of these, it will be seen, are applicable to teachers of whatever subject; others have a specific relationship to modern media.

1. General areas, in addition to normal, existing requirements:
   a. Child and adolescent psychology and development;
   b. Educational philosophy and psychology;
   c. Social psychology;
   d. Semantics, basic human communication;
   e. Data search, organization, presentation;
   f. Visual perception;
   g. Music, art, and drama.

2. Specific areas, involving film, radio, TV, recording, and graphics:
   a. Structures and aesthetics of media;
   b. Histories of media;
   c. Organization of media (social, commercial);
   d. Practical media production;
   e. Media education—philosophy and practice.

More detailed discussion of these areas, and of ways in which both new and in-service teachers may be trained in them, lies outside the range of Phase I of the Project; it is the subject of further reporting in Phase II.

Resources, Materials, and Equipment

Feature films have traditionally constituted the main "stuff" of screen education, this category containing as it does the greatest bulk of artistic, historical, and socially-revealing screen material. Especially in such a tightly-timetabled curriculum as existed at North Reading, however, their length and comparative density of content—as well as their relatively high rental cost—militates against their extensive classroom use. It is probably preferable that they be shown in "film club" auditorium situations to larger audiences (perhaps including parents and other adults) or special film programs or "festivals" might be arranged with a local theater, where one exists. In the context of contemporary screen education practice, the role of the feature film is increasingly becoming that of important "reference material" rather than material for regular classroom screenings.

Short films are more manageable and more accessible, and in recent years especially they have come more and more to represent the best expression of artists working in a contemporary mode. Many of them, especially student and "experimental" films, are immediately engaging for young people, often providing them with models for emulation. It was the Project experience that, by and large, short films represented more useful material than the feature employed.

Other materials, in addition to the large number of reference books now becoming available, are required. These include records, tapes (audio and—where applicable—video) slides, film extracts and short lengths of film, illustrative of various types and techniques. The more of these reference examples available, the more stimulating the lessons, and every media educator should be intensely acquisitive (as was the Project) of every available item, no matter how little applicable it may appear at first sight. Moreover, there is a strong case for every teacher's making some such material for himself. Only by such means can the teacher thoroughly "learn" and master his illustrative material so that he, not it, controls the attention of the class, and the course of the lesson.

Equipment varies in reliability and durability. In general, good still photographic apparatus and 16mm film equipment is satisfactorily accessible; the newer media of Super-8 and electronic recording offer more scope for modifications. The Project's small experience of closed-circuit TV and videotape indicated great potential in these media. The provision of basic facilities for a media workshop area in all school design is an evident need. But, in general, the Project indicated that good work can be done with modest equipment. Expensive tools and technology are no substitute for good teaching.

Other Practical Problems

The final matters raised here may be minor and specifically related to the North Reading situation. But they may be indicative of tensions and strains which are likely to arise wherever attempts are made to introduce a form of media education into a public school system, and are included here for that purpose.

One case of difficulty, already referred to, was the inflexibility of timetable scheduling, which required that classes meet on a regular daily schedule for 52-minute periods. The "tyranny of the bells" sits particularly heavy on a subject-area which may require, for example:
one day, a two-hour period for feature-film screening; on another, an entire afternoon for shooting; on a third, a brief half-hour for a succinct data-imparting lesson. Nor does there seem any special reason, outside of timetable convenience, why classes should not only meet only once or twice a week instead of daily. The solution, of course, lies in some form of modular scheduling, at the time of writing not yet adopted at North Reading. (It is relevant to note, perhaps, that towards the end of the Project the ringing of beels was suddenly abandoned in the high school, without apparently any detriment to order.

Although North Reading High School can by no stretch of the imagination be called a repressive institution, there was extant a number of rules and practices which, to this observer at least, seemed designed more to ensure monastic peace and quiet than the free pursuit of educational goals by students and faculty. Certainly, the organization of small-group activities such as photography and film-making demands high responsibility and watchfulness on the part of teachers; but screen education lessons, with their emphasis on learning by doing, seemed often to conflict with regulations conceived from a different viewpoint—one which, apparently, regarded education as an activity strictly to be confined behind classroom doors, with students only to be "released" therefrom under the strictest and most suspicious surveillance.

Moreover, the stricter the system, the greater is the strain placed on students when they encounter attempts to create that less formal atmosphere for group projects, etc. An example of this arose early in the Project when, for screen education lessons, it was decided to rearrange the classroom furniture to create an informal environment different from that of the traditional rows and files of study-chairs. The students were clearly uneasy in this new atmosphere; their classroom behavior had become adapted to habits of sitting one behind the other in a kind of psychic isolation, communicating among themselves only in surreptitious fashion, never facing each other in conversation. The older the students, the more difficult it was to break this formal pattern; chairs had a way of creeping back into an untidy series of ragged rows, with the least adaptive students sitting covert behind the others.

Although, therefore, there is a clear need for a trusting, relaxed, and free relationship between students, faculty, and administrators—one would postulate this, of course, for all education—it should be appreciated that this cannot come overnight and that, in some respects, young people may show themselves more conservative than their elders, clinging for security to familiar rules, no matter how restrictive, and needing slow and sympathetic weaning from those which interfere with their development as maturing individuals.

If we add to these areas of possible conflict others which evinced themselves during the Project, for example, care of equipment, the substitution of project assignments for more traditional homework, the need for compromise with other faculty, etc., it will be seen that the introduction of media education, although it may be fully in accord with declared philosophies of education, may well give rise to clashes with existing educational practices and traditions. There is no reason why these should prove to be irreconcilable, but time and good will are two essential ingredients of a satisfactory solution.
The descriptive nature of this report has allowed for broad detailing of the activities and events of the two years work. An important part of the process has involved examining some of the problems specific to the practice of screen education and more generally examining the nature of education itself. It is clear that further research and practice is sorely needed in many of the areas touched on in the report. However, within the pages of this report broader and more general implications exist concerning the relationships of technology, society and education.

The changes and innovations in education that call for the creation of the new sets of environmental relationships between teacher and student, student and school, teacher and self, etc. are rarely accomplished without an impact on the host community, be it secondary school or college. The Project's experiences in North Reading reflect this impact in the ways that have been described above. It is particularly true that when the nature of the changes brought about by technology (in this case, the new media) become an object of study, many of the traditional assumptions about the nature of teaching and learning are called into question. Accordingly, the need to review, re-evaluate and redesign the practices of education becomes an acute concern of those involved with the study of the media. This will continue to be a particularly difficult task while the nature of the media and their consequences in education remain largely unknown.

As the pace of change increases with time, the young people who are the "clients" of education are rapidly entering a situation in which institutional adaptability is continually being outstripped by technical and organisational development. During the course of the Project, video tape, super 8 equipment and the use of television in preschool education have all undergone important changes that make them more available, more diverse; this has increased their impact on society accordingly. The nature of this process is to thrust the young person into a world that is less and less understood by his elders. As a result the stress is changed from what to learn, to how to learn, which again changes relationships within the educational environment.

The Screen Education Project only began to touch on those parts of these two dilemmas that were most visible. The changing concerns and activities of the Project indicate in a small way how the educational process must be responsive to the changing patterns of experience. The important role that the students played in these changes within the Project must be stressed. The Project team learned not only from close observation of the students, but also from careful listening and cooperative probing in the new environment. It also became clear that the integrative nature of studying the media provided a truly change-and-process-conscious set of experiences for the student, making possible a clearer and more thoroughly understood relationship of self to the environment.

In order that we may be prepared to respond to the changes that will occur with increasing frequency as the result of the impact of the new media and other technological phenomena, a greatly increased level
of investigation must be initiated so that we make informed and not random responses. The role of the new media in the following areas must be explored:

1) Elementary and secondary education in their present models
2) Higher education for teaching
3) The education of the rural and urban child
4) The emergence of complex sets of experiences unknown to the world of printed media
5) The cognitive and emotional development of the young child -- preschool and elementary
6) The development of a new design science for schools and curricula.

Education must repossess all the modes of communication available to it and seek to understand their strengths and weaknesses. To leave the problem to others is to be guilty of complicity in the process of ignorance by default.