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ABSTRACT
        Advocates of movie making believe that it provides a
non-ethnocentric experience that is inherently engaging and
relatively free from the risk of failure. Disadvantaged teenage boys
who were attending two experimental summer work camps participated in
studies of two aspects of movie making. The first study evaluated
three different techniques for introducing movie making to the boys.
The techniques ranged from simply making equipment and films
available, to cursory instruction in movie making, to a maximum
involvement situation with ongoing instruction, planning sessions,
contests, and the immediate viewing of completed films. No
significant differences in quantity or quality of the films were
found among the presentations. The second study attempted to find a
correlation between the content of the movies and the attitudes,
personality traits, and behavior of the movie maker. Although the
number of movies taken and their content were not found to be related
to the personality of the individual movie maker, ratings of the
quality of the movies showed a tendency toward such a relationship.
This data would suggest the need for caution in viewing claims for
the therapeutic value of movie making, however, the success of movie
making must be considered in context as a possibly relevant and
important social situation. (JY)

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A Study of the Introduction of Movie Making to Poverty Boys

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New York, New York

May, 1970

U.S. Department of
Health, Education, and Welfare

Office of Education
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SUMMARY

Movie making has found increasing acceptance as an in-
novative supplement to the academic curriculum and recreation
programs. Advocates of movie making value this endeavor be-
cause it provides a non-ethnocentric experience that is in-
herently engaging and relatively free from the risk of failure.
As such, it offers a particularly valuable experience for dis-
advantaged youngsters who are often "turned off" by more tra-
ditional educational experiences. For youngsters in general,
and poverty youngsters in particular, it has been suggested
that movie making is potentially psychotherapeutic and cap-
able of providing an entree to more traditional education.
It has further been suggested that there may be a valuable
transfer of learning from visual literacy to literacy i.e.,
reading and writing.

Subjects for the research project were exclusively dis-
advantaged teen-age boys who were attending one of the three
different five week sessions at the two experimental summer
work camps operated by Sage Hill Camp, Inc. One camp session
took place at the Montezuma, Colorado camp, and took boys from
the Denver area. The second camp was located in Jamaica,
Vermont, and took boys from Harlem in New York City. The study
of movie making was incorporated into a larger evaluative study
of the Sage Hill Camp program. (The program and the results of
the evaluative study are discussed in detail in the final re-
port to the U.S. Department of Labor for Grant No. 92-6-67-14).
The camp program was a guided group interaction program for
poverty youngsters. The boys actually built the entire facil-
ities of the camp and had an active voice in the governing of
camp affairs. They also were to be involved in year round
follow-up activities.

The research project studied two aspects of movie making.
The first was an evaluation of three different techniques for
introducing movie making, and the second was a correlational
study of the content, quality and number of the movies taken,
and personality traits, attitudes, and behavior of the movie
maker. In the experimental study of introducing movie making,
it was hypothesized that the greater the involvement in the
introduction of movie making, the greater would be the number
of movies taken, and that these movies would be of better
quality. Three degrees of involvement were used with three

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different groups of campers. In the Colorado camp, the equipment and films were simply made available without any attempt to encourage their use. In the first of two five week sessions in Vermont, equipment was made available with cursory instruction in its use. Further assistance was available upon request. In the second session, maximum involvement was obtained with the use of ongoing instruction, planning sessions, contests to make the best movies, and the immediate viewing of completed films, etc. Only in the Vermont camp were subjects randomly assigned to either the moderate or intense involvement condition. The independent variable in this study was the degree of involvement in movie making and the dependent variable was the number and quality of films taken. Quality was determined by a scene-by-scene content analysis of the individuals' movies. Significant differences in the hypothesized direction were not found.

The second part of the study was a correlational study of the nature and extent of the relationship between the quality, content and number of movies taken, and the personality traits, attitudes and behavior of the movie maker. If movie making is potentially therapeutic, then at least the content of the movies ought to be related to the attitudes, personality traits and behavior of the movie maker. Without such a relationship, it is difficult to argue for the psychotherapeutic potential of making movies. Although the number of movies taken and their content were not found to be related to the personality of the individual movie maker, ratings of the quality of the movies showed a tendency toward such a relationship. This relationship was slightly in excess of what would be expected by chance at the .05 level of significance.

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1. Review of the Literature

Primary and secondary school education in general and inner-city schools serving low income students in particular have been the object of severe criticism for their failure in the academic enterprise. They have been criticized for the irrelevance of their ethnocentric curriculum which is taught in an unimaginative and mechanical manner. Glasser (1969, p. 48-49) has commented on the effects of irrelevant curriculum:

> When relevance is absent from the curriculum, children do not gain the motivation to learn. As more complex studies come along in the later years of school, subjects that only motivated students can master, the children stand still and fail. We cannot depend on the natural curiosity of children to bridge the gap because too often it failed to do so, especially among those children whose backgrounds are different from those of the teacher.

Glasser (1969, p. 49) has in addition criticized school systems and teachers for failing to adapt teaching methods to the backgrounds of the ghetto children. Teachers need to be flexible enough to conform their teaching to the children's world rather than force the children to conform to their middle class world.

Kozol in his book, Death at an Early Age (1967, p. 187-188) has described a related problem:

> On a series of other occasions, the situation
> is repeated. The children are offered something
> new and something lively. They respond to it en-
> ergetically and they are attentive and their atten-
> tion does not waver. For the first time in a long
> while, perhaps, there is actually some real excite-
> ment and some growing and some thinking going on
> within that one small room. In each case, however,
> you are advised sooner or later that you are making
> a mistake. Your mistake, in fact, is to have im-
> pinged upon the standardized condescension in which
> the entire administration of the school is based.
> To hand Paul Klee's pictures to the children of this
> classroom and particularly in a $20.00 volume con-
> stitutes a threat to the school system...In such
> a manner many children are tragically and unjustifiably

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held back from a great many of the good things
that they might come to admire and are pinned down
instead to books that the teacher knows and to easy
taste that she can handle. This includes, above
all, of course, the kind of material that is con-
tained in the Course of Study.

The potency of this condescension was demonstrated in
Rosenthal and Jacobson's article, "Teacher Expectations for
the Disadvantaged":

At the end of the academic year, 1964-65, the teachers
were asked to describe the classroom behavior of their
pupils. The children from whom intellectual growth
was expected were described as having a better chance
of being successful in later life, and as being
happier, more curious, and more interested than
the other children. There was also a tendency for
the designated children to be seen as more appealing,
better adjusted, and more affectionate and in less
need of social approval. In short, the children
from whom intellectual growth was expected became
more alive and autonomous intellectually, or at least
were so perceived by their teachers...From these
results it seems evident that when children who are
expected to gain intellectually do gain, they may
be benefitted in other ways...They go up in the esti-
mate of their teachers. The opposite is true of chil-
dren who gain intellectually when improvement is not
expected of them. They are looked upon as showing
undesirable behavior. It seems that there are hazards
in the unpredicted intellectual growth.

Another important aspect of the educational experience which
has been subjected to harsh criticism is the nature of the encoun-
ter between students and teachers. All too often, children,
and ghetto children in particular, are treated in a demeaning,
patronizing and condescending way. Children are often the object
of sarcasm and humiliation. Embarrassing encounters are created
by the teacher who calls on students in order to demonstrate their
ignorance. In the context of such antagonistic and unfriendly
encounters, it seems natural that the educational process becomes
stymied. (Kozol, 1967, p. 12-16)

Some teachers, such as Kozol (1967) and Kohl (1968), through
their tenacity, innovativeness and personal warmth seem to have

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overcome the structural impediments and the pre-existing hostility
of students, and have been able to create an atmosphere which is
exciting, interesting, friendly, curiosity-arousing; i.e. conducive
to the educational experience. There is a strong possibility that
the people who engage in the innovative and exciting approaches
to education such as visual literacy and movie making may also
tend to be those people whose personalities are critical to the
success of any venture. One of the goals of the research was to
attempt to separate or partial out the effect of the personal
credibility and relationship of individuals in movie making from
the project of movie making in and of itself. In the "Hawthorn
Experiments" personalities and relationships proved to be of
greater importance on work levels than were noise level, lighting
and working arrangements. The fact that workers were involved
with management in a friendly and cooperative way and were the
object of personal attention explained the increase in production
rather than the changes in physical settings. (Roethlisberger
and Dickson, 1939)

In the absence of systematic and "scientific" evaluation
of the introduction of movie making to youngsters and particu-
larly poverty youngsters, one must rely on a wide variety
of popular articles.[1] These articles do not contain facts
and figures about the quality and quantity of movies and the
psychological and demographic characteristics of the movie
makers. It is, therefore, difficult to evaluate, except im-
pressionistically, the success of their ventures. Clearly it
seems that a wide variety of effective and engaging programs
exist which make movies with youngsters ranging from the afflu-
ent to the poor. The Johnson Center in New York City, The Film
Club of Roger Larsen, The Bank Street School, the efforts of
John M. Culkin, S.J. at Fordham University, the program of
Reverend Robert Stoddard of the Tabernacle Church in Phila-
delphia, and the Henry Street Settlement House program of Susan
Wood, etc., all seem to be effective, engaging and productive
efforts in making movies with youngsters.

In the statements about the meaning of movie making for
youngsters, one finds many claims for the importance of movie

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[1]
An annotated bibliography of known articles about movie making
was prepared and is available from the author. In the interest
of brevity this material has not been included in this report,
but it is available for future researchers.

making for youngsters, and also many claims for the importance
of movie making as an entree to more formal education, psycho-
therapy, enhanced self-esteem, and the creation of exciting movies.

In 1941, Eleanor Child and Hardy Finch wrote a book entitled
Producing School Movies which was published by the National Council
of Teachers of English. In an appendix of the book, over fifty
schools throughout the United States are given that have estab-
lished film making programs. The authors called for a controlled
situation in which the instructor played an active role in the
technical aspects of movie making and script writing.

MOVIE MAKING AS AN INHERENTLY ENGAGING EXPERIENCE

More recently, movie making has been espoused as an in-
herently engaging experience which is due to the mass exposure
of children to television and movies. (Debes, May, 1968, p.
26-27) It is suggested that because of this prior experience
movie making is an inherently engaging and satisfying experi-
ence. Gilbert (1967, p. 71) sums up the ease with which young-
sters can be encouraged to make movies:

> Even youngsters who have never been exposed to film
> making have seen enough films and television to
> grasp quickly the elements necessary to tell a
> story of their own choosing on film.

Dart (1968, p. 96-99) expresses a similar opinion:

> Almost without exception students would like to make
> films. Therefore, teachers can assume that students
> will be motivated to study contemporary modes of
> expression and communication. Something exciting
> happens when the magic picture flickers on the screen.
> Inexpressible, nonverbal experiences begin to take
> shape. Suddenly students discover things they had
> never seen.

While his students in the Radio, Television, and Film Depart-
ment at San Fransisco State College may be older, the author
suggests that movie making is inherently engaging and satis-
fying for a wide range of the population.

Thus the previous exposure of children to the mass media
of television and movies is considered one of the factors that
facilitate the involvement of children in movie making.

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NONPROFESSIONAL MOVIE MAKING AS ART

Claims, that seem well substantiated, are made that young-
sters and particularly poverty youngsters often make excellent
movies which are in and of themselves artistic, sensitive and
able to communicate vital messages. Gilbert (1967, p. 71) in
discussing the movie, "Not Much to Do" says,

> Thanks to Ben Achtenberg's care in keeping his own
> involvement limited to the amount necessary to in-
> sure photographic precision, the plotless film con-
> veys its story with astonishing documentary clarity
> and emotional power. "Not Much To Do" records the
> joy of rolling down a grassy slope, the satisfaction
> of bone-bruising horseplay when a boy tests his
> muscles against those of his buddies, the fear of
> the policeman on the beat. But it also captures
> the feeling of togetherness when kids gather to
> break the rules, break the lock in order to break
> into life.

MOVIE MAKING AS AN EDUCATIONAL EXPERIENCE

Another set of justifications for film making suggests
that movie making offers an alternative to an ethnocentric
curriculum. Movie making can provide an entree to more verbal
and written types of educational experiences. An entire field
of visual literacy has emerged which makes analogies between
the grammar and syntax of visual experiences and the grammar
and syntax of written and verbal communications. It has been
suggested that the less encumbered visual literacy can act as
an entree to generalized literacy -- writing and talking.
Debes (May, 1968 p. 27) has written about this prospect:

> We discovered that his visual language can also be
> a vital tool in making the spoken and written lan-
> guage more meaningful to youngsters at all age levels,
> for much of verbal language rests on earlier visual
> experiences. For example, some kids have a tough
> time with the concept that the sentence 'John hits
> Mary' stands for a physical action by real people;
> that the relationship described by the words par-
> allels the relationship between the two people.
> However, if we pair the subject, predicate, and object
> elements of the written language with the corresponding
> elements in the visual language -- a picture of John,

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a close-up of John's hand slapping Mary's arm, a
shot of Mary about to cry -- then the youngster,
literally, can see the connection.

Another way the gaining of an entrée to education is facil-
itated by the use of movies in that movie making evokes active
participation as opposed to passive observation. Debes (May,
1968 p. 27) states,

Just as we lead the student to develop from the
passive role as listener and reader to the active
one as speaker and writer, so we can transform a
youngster from a(n) observer to a visual communica-
tor.
      Margaret Mead, the cultural anthropologist, has
commented that it is impossible to look through
the viewfinder of a camera without selecting some
aspect of the scene to photograph. This process
of selection is a major part of what happens to a
youngster when he makes a picture. He is forced
to examine his environment and, in many cases, to
realize for the first time the complexity of his
surroundings.

Debes suggests that the critical viewing and analyzing of the
environment which is inherent in taking pictures is relevant
and valuable as an educational experience in and of itself.

Debes (January, 1969, p. 15) in speaking of visual liter-
acy said the following:

Of these forms of visual language, English, body
English, is the most common. As a child, we learn
to interpret it early. Babies learn to read it be-
fore they can speak. They have, in effect, a
visual vocabulary before they have a verbal one.
By the time a child reaches school age he has a
very well-developed repertoire of body language
consisting of facial expressions, gestures, body
conformations, and other factors.
      He trusts his visual language more than he
trusts the verbal language he has more recently
acquired. If there is a conflict between what he
reads in the visual language and what he hears in
the verbal language, he believes the visual.

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This suggests that the transition to verbal language can be fa-
cilitated if visual language is used as an introductory technique.
Weiss (June, 1967 p. 74) in another article suggests the impor-
tance of visual over verbal language in the following statement:

> Emphasis was always on the problem and its visual
> solution, which in turn would bring the picture-
> taker a sense of achievement as well as an aware-
> ness of his new powerful medium of nonverbal ex-
> pression -- both important to "word-hostile" chil-
> dren for whom the verbal is more often associated
> with the proscriptions of authority than with the
> pleasures of shared communication.
>
> Within weeks this study group learned to probe,
> explore, wonder, think and create -- all by the
> squint of an eye and a stretch of the imagination.
> What's more, they had absorbed a bit of Euclid and
> Einstein, Clive Bell and Bridgman, as well as the
> application of Newton's Law to a dropped camera.
> Altogether not a bad report card for a six-week
> project.

Clearly these authors believe that it is valuable to capi-
talize on the pre-existing visual literacy and grammar in or-
der to develop other types of literacy. Similarly the ex-
perience of looking through a view finder makes one more
critical, can be a source of learning fundamentals, and can
be a stimulant to developing an inquiring mind. For poverty
children the non-ethnocentric character of active participa-
tion in creating movies is particularly valuable because
they are likely to be intimidated by and antagonistic to the
more middle class curriculum.

Debes (January, 1969 p. 14) summarizes his views:

> I do not wish to convey the impression that I feel
> that visual literacy is some kind of panacea. We
> know that some children are relatively speaking
> visual and some other children are relatively speak-
> ing haptic. We know, therefore, that these children
> will respond differently to opportunities to read
> and write visuals. However, initial indications
> are that all normal children seem to benefit from
> having visual literacy learning opportunities.

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Given the all too often unhappy encounters of poverty children
with the word oriented and often ethnocentric middle class school
curriculum and teacher, visual literacy techniques hold out the
possibility of circumventing this encounter in order to facilitate
later acquisition of verbal skills. The extent to which it ful-
fills this promise remains to be determined.

MOVIE MAKING AS A THERAPEUTIC EXPERIENCE

Writers have suggested that the expression inherent in
taking pictures is itself therapeutic psychologically. It is
assumed that to express one's feelings is inherently good, and
that visual language facilitates such expression. This is sug-
gested by Debes: (May, 1968 p. 27)

> While the discipline of visual language may force a
> youngster to make selections from his environment,
> it also allows the observer -- the person who looks
> at the pictures -- to gain new insight into the con-
> cerns of the child. If a small boy takes a picture
> of an older boy sitting in a beautifully restored
> Model T, for example, he is not merely taking a
> picture of that youngster and that car. He is also
> saying that there is something about the situation
> that is of particular meaning to him; he wants to
> record the evident pleasure of an acquaintance, or
> he admires the possession -- and the "power" -- of
> an older boy.
>   There are records of children shooting as many
> as fifteen pictures of policemen. Since the young-
> sters are small and covet power, their concentra-
> tion on an authority figure is understandable. One
> child, in an experiment last summer, used all his
> film to take close-up pictures of adults. It hap-
> pened that this youngster had been described by his
> teacher as relating poorly to adults. Clearly, he
> was attempting to make himself more comfortable
> with grown-ups by photographing them and then
> studying his visual record as often as he felt he
> needed to.

In this statement several assumptions are implied. One,
the child's needs and private concerns will be expressed in
his pictures, and this expression in and of itself is thera-
peutic. The second assumption suggests therapy works like
Wolpe's (1966) technique of progressive desensitization.

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Here aversive stimuli are desensitized by a series of approx-
imations moving from the phantasy to the behavioral level.
Debes implies that taking pictures of aversive situations
helps in the process of desensitization by making the movie
maker more comfortable with adults.

Forsdale and Litten in their "Pre-School Film Experiment"
(January 1966, p. 103, 147-148) suggest that movie making is
relevant to enhancing the self-esteem of poverty youngsters:

> It has long been recognized that children who suf-
> fer cultural deprivation place little value on them-
> selves; after all, they are merely reflecting the
> worth assigned to them by others. For this reason,
> the staffs of both the Center and Project agree
> that the children gain a great deal from being
> able to make their own films with automatic
> equipment and from being free to pick whatever
> cartridge they like and project the film for them-
> selves as long as they wish. They also agree that
> there is a profound advantage to these particular
> children in films produced especially for them --
> "tailor made" for them to see themselves and their
> own surroundings more richly.

The views that movie making is inherently engaging, pro-
vides a non-aversive entreé to more formal education, reflects
the psychological needs of the individual, provides a thera-
peutic outlet for expressing one's feelings, offers an oppor-
tunity to look at one's self as an object and to clarify one's
own place in society and enhances one's self-esteem through a
confidence-building and successful project is documented in
Kodak's discussion guide, The Growing of a Young Film Maker.
This discussion guide was intended for use with a film about
a Raymond Esquilin who was a high school dropout, but who
appears to have had an extremely positive experience for him-
self personally, and in the process to have produced some no-
table documentary movies. It is not clear how much of this in-
volvement and success in movie making is due to the sensitivity,
capability, concern, and commitment of the film club director,
Roger Larsen, and how much is due to the specific experience
of making movies. Similarly unclear is the extent to which
his very idiosyncratic interest of "evoked potential" for
movie making is typical of other youngsters. Without question
he seems to have grown from the experience, and to have pro-
duced films which are artistically successful, (he won prizes

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for his film "The Thief") and which reflect clearly his own
dreams, ambitions, and frustrations. His long history of fail-
ure seems to have been turned around and he is now a successful
full time instructor in teaching film making to people like him-
self on the lower East side. There seems to be little reason
to question that film making can be for some individuals an im-
portant experience. An important question is to determine the
extent to which Raymond's experience can be generalized to
others, and to separate the results of movie making per se from
the social milieu which Raymond enjoyed in his film making club.
If the preponderance of his successful experiences are due to
film making per se, education has come upon a veritable gold
mine. Film making per se, while somewhat expensive, is readily
transferrable and depends less on people and relies more on
equipment and supplies. Given the short supply of competent
and effective people who can relate in meaningful and produc-
tive ways to students, movie making would indeed by a blessing.

The task of this research project is to explore the gen-
eralizability of the movie making experience to other young-
sters, and to estimate its relevance psychologically. These
psychological questions are extremely difficult and in many
cases are beyond the scope of this research. Psychotherapy
has proved particularly difficult to evaluate. It stands to
reason, therefore, that to evaluate the therapeutic potential
of movie making, a less understood phenomena, is beyond the
scope of this project. However, some evidence can be provided
on the nature of the relationship between the content of movies
and personality.

One aspect of movie making that is beyond the scope of
this research project is the extent to which movie making with
youngsters can provide an entree into more academic and verbal
curriculum. As suggested above, movie making offers this po-
tential, but the research project on movie making with poverty
teen-agers in a summer camp setting cannot address itself to
this question.

If movie making per se has potential as an educational and
therapeutic tool, more data is needed on different techniques
of evaluating the introduction of movie making to youngsters.
Is it so engaging that one simply needs to make equipment avail-
able as suggested by Dart (1968, p. 96-99) or must it be intro-
duced under controlled circumstances and with a great deal of
technical supervision as suggested by Child and Finch (1941)?
In order to examine the question of different techniques of

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introducing movie making, three conditions of introduction were
employed in the experiment.

Two studies suggest that the degree of involvement of young-
sters in the the introduction of movie making is an important vari-
able. Kelman (1961) delineates different levels of change as
compliance, identification, and internalization. Internalization
is relevant to the introduction of movie making because it sug-
gests the degree of involvement necessary for one to reap the
therapeutic and educational benefits in movie making. Kelman
(1961, p. 65) describes internalization as follows:

> Finally, internalization can be said to occur when
> an individual accepts influence because the induced
> behavior is congruent with his value systems. It
> is the content of the induced behavior that is in-
> trinsically rewarding here. The individual adopts
> it because he finds it useful for the solution of
> a problem or because it is demanded by his own values,
> in short because he perceives it as inherently con-
> ducive to the maximization of these values.

Studies have not been made specifically of the introducing
of movie making, but it seems plausible that success in movie
making whould be related to the degree of involvement in in-
troducing movie making. Three degrees of involvement in movie
making were studied and are described in the following sections.

In summarizing the literature, many of the problems raised
by popular writings about movie making must be left unexamined,
such as the therapeutic value of movie making, and its poten-
tial as a device to provide an entrée into more formal educa-
tion. The questions to which the study will be directed are,
"Is there a relationship between the quality and quantity of
movies made and the techniques and degree of involvement in
introducing movie making to a group of poverty children?"
A second question, while not directly related to examining the
therapeutic value of movie making, will provide some relevant
evidence to that question. Specifically the analysis of the
content of the movie making will be related to a variety of
psychological characteristics and measures of attitudes. If
movie making is relevant psychologically to the individual, then
minimally there should be some functional relationship between
the movies that are shot and the personality of the movie maker.
Only if such a relationship obtains can one logically consider
the therapeutic value. Having sorted out these questions from

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the many proposed justifications for movie making one must now
devise an experimental design and instruments which can provide
data relevant to these questions or hypotheses. The experimen-
tal design and instruments are discussed in the following section.

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II. The Experimental Design

The research addressed itself to the testing of two hy-
potheses about movie making. (1) Specifically, it was hy-
pothesized that the greater the degree of involvement in
movie making, the greater would be the number of movies taken.
It was also hypothesized that these movies in the more in-
tense condition of involvement would be of better quality.
(2) It was hypothesized that there would be a functional re-
lationship between the movies made by the teen-agers and
their personalities, i.e. attitudes, personality traits and
behavior. Advocates of movie making have suggested that it
is a potentially therapeutic experience. If this is true,
one could assume that there would be a functional relation-
ship between movies taken and the personality of the movie
maker. If the personality traits of the movie maker and the
content of the movies are not correlated, it is difficult to
argue that movie making can be a therapeutic experience.

THE HYPOTHESIS: THE GREATER INVOLVEMENT IN INTRODUCING MOVIE
MAKING LEADS TO MORE MOVIES OF BETTER QUALITY

The independent variable in this part of the study was
the degree of involvement in the introduction of movie making.
The three degrees of involvement can be arranged on a con-
tinuum ranging from simple exposure to movie making equip-
ment to one of moderate involvement in movie making and fin-
ally to a condition of intense and structured involvement.
In the first condition, referred to as the "laissez-faire"
condition, (Montessori, 1964) unlimited films and cameras
were made available to a group of sixteen poverty teen-agers
attending the summer camp in Colorado. Movie making was not
particularly encouraged by the staff. It was simply avail-
able. In addition, the developed films were never shown to
the boys so editing and discussion of their movies were im-
possible. This group was included as a comparison group to
determine the extent to which boys would pick up cameras and
develop as movie makers without any particular encouragement.
Some might argue that movie making is so engaging that if one
simply makes equipment available, some creative individuals
will develop into good movie makers. It should be noted that
this "laissez-faire" condition only qualifies as a comparison
group. Subjects were not randomly assigned to this condi-
tion as they were in the other two conditions. These boys

(15)

came from a different area of the country, and half of them
had attended camp before and had been exposed to a pre-
vious movie making project. The camp in Colorado was com-
pleted and thus not comparable to the Vermont sessions which
had extensive work projects underway.

The second and third conditions were the major thrust of
the experimental design. Poverty boys were randomly assigned
to come to five sessions in either July or August. This ran-
domization made possible a more experimental evaluation of
these two techniques of introducing movie making. In the first
condition, a low key approach to introducing movie making was
taken. Subjects were given cameras and films and provided
with sufficient instructions to start them taking movies.
These instructions familiarized the boys with the procuring
of films and cameras, the loading of cameras, and the concepts
of exposure, focus and composition. At this time, it was
made clear that further instructions in movie making would be
available from the movie maker who was at the camp for this
research project. This instruction, however, was only avail-
able upon request which meant that the boys had to take the
initiative in seeking help for their movie making efforts.
Classes or prizes were not offered for movie making. Re-
turned films were not shown to their makers. During the
course of the first session, a documentary movie was in pro-
gress on the building of the camp, and boys were invited to
participate in taking footage of the building of the camp
and working with the film maker. Summarizing this condition,
equipment was made available, and brief but adequate instruc-
tions were provided. Immediate viewing of the films was not
provided; editing was not undertaken, and technical advice
was only available on request. When advice was sought out,
it was followed up and pursued. This situation was distinct
from the third condition where advice was offered.

The third condition sought to maximally involve the
youngsters in movie making. A small shadow box was built
with benches for viewing the films. Boys were introduced to
the technicalities of movie making in small groups or indi-
vidually. The movie director sought to elicit as much in-
terest and enthusiasm for the project as possible in these
sessions. This was the one condition in which his own en-
thusiasm and skill as a teacher were unleashed. He tried
everything possible to interest the boys in making movies.
As a person he is a casual and relaxed individual with many
creative abilities and a good sense of humor. He worked

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well with the boys and presented movies as both a serious endeavor
and one that could be fun. He actively sought to help and en-
courage the boys in the planning of movies. The films were
developed as quickly as possible (usually four days) so that
they could be viewed immediately and discussed with the pro-
ject director. Prizes were offered for the best films made
by individuals or groups of individuals. In general, movie
making was encouraged maximally through the use of the active
participation of the movie project director, the immediate
playing back of movies, extensive discussions and instruc-
tions in movie making, and the offering of a variety of prizes.
The offer was extended to have boys shoot footage of the camp
and have their footage included in the documentary movie which
was being made of the building of the summer camp. The plan-
ning and involvement in the 16mm. project was a facet of the
attempt to maximally involve the boys in movie making.

Indirectly, the three conditions of involvement will pro-
vide some data on the effect of instructors on such projects
as movie making. If movie making in and of itself is inherent-
ly engaging then without the benefits of charismatic instruc-
tors, the boys should be led by the very nature of the experi-
ence to producing effective movies which are psychologically
relevant to their own personalities. If movie making does
not appeal to a broad range of poverty youngsters then even
the experience of intense, charismatic involvement should do
little for engaging youngsters. Obviously, probably neither
of these extreme conditions obtain, and differential responses
should occur to the techniques of introducing movie making
along the involvement continuum. A differential response
should provide some data about both the effectiveness of
different techniques of involving youngsters in movie making
and the extent to which movie making per se is inherently
engaging.

THE DEPENDENT VARIABLE: THE QUANTITY AND QUALITY OF THE MOVIES

The dependent variable in this study which was related to
the independent variables of the different techniques of in-
volving youngsters in movie making was the quality and quan-
tity of the films taken by the youngsters. Super 8mm. films
were chosen for the movie making project because they were
less expensive than 16mm. films. They came in cartridges
which could be removed from the camera. Each individual was
given as many cartridges as he requested. The cartridges al-
lowed the researchers to identify all footage shot by the in-

(17)

.dividual. Films supplied to the campers were numbered and iden-
tified with the campers for later content analysis. While
lacking the prestige of 16mm. films, these cartridges could
be easily stopped, started and identified.

The quantity of movies was determined by the number of
fifty foot Super 8 canisters of film which were checked out
and used. The quality of film was determined on the basis of
a content analysis of the exposed movie film. The content
categories sought a compromise between the highly personal
analysis of the individual's film versus broad categories of
content needed to compare groups of people. Minimally the
categories had to have sufficient data to provide a sample size
which provides statistical power necessary for the comparisons
(Cohen, 1962). Such an unavoidable constraint on the content
analysis probably precludes identifying and measuring the
highly idiosyncratic meaning of the content for an individual.
Even if such categories could be devised, they would raise
problems in the reliability of the categorizing. The unit
for content analysis of the movies was an actual scene as
determined by the opening and closing of the shutter for the
exposing of the film. Scenes were usually identifiable be-
cause of the change in lighting, scenery and a variety of
other indicators.

Numerous problems were encountered in the attempts to
measure the length of each scene. Several approaches were
tried and finally one was selected. This technique proved to
be satisfactory, convenient and accurate. The film was run
through a projector which was running at a constant speed.
The projector and an electric stop watch were connected to a
foot activated on-off switch. This timing device was accurate
to 1/100th of a second. Every time the projector would stop by
pressing the foot pedal, the clock also stopped. Then the
number of seconds elapsed to the nearest 1/10th of a second
was determined for the scene. After numerous practice sessions,
the discrepancy of starting and stopping the film after iden-
tifying the end of the scene was reduced to a relatively few
movie frames. In cases where mistakes were made, the film was
reversed and the scene measured again. Once the movie film
was measured, the timer was reset to zero and the next scene
was measured. This system proved entirely acceptable and
yielded an accurate measure of the length of each scene, and
is recommended as a method of doing content analysis.

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In addition to measuring the length of each scene, the
researchers determined the content of each scene. Tally
sheets were set up so that content and duration of the scene
could be noted. The categories for content analysis were
chosen to be concrete and readily discernable categories. The
content analysis sought to determine whether the footage was
of people or not. If people were shown in the scene, it was
noted whether they were adults, boys or both. When people were
photographed, their actions were also noted. It was deter-
mined whether the scene was of people involved in sports, work,
recreation excluding sports, nature activities or fooling around.
If people were involved, it was also noted whether the scene
appeared acted. For scenes not of people, it was noted whether
the scene was taken of plants, animals, scenery, tents, or
buildings. A final category of useless films -- that is films
in which the object of the film could not be seen -- was in-
cluded.

The content analysis included four categories on the
quality of the film. The first category was the accuracy of
the exposure, and the second was the accuracy of the focusing.
The third was the theme development, that is, the extent to
which the shot or sequences of shots sought to tell a story
or develop a theme. The fourth was an overall estimate of the
quality of the specific scene.

While these categories are discrete and concrete, they
tend to avoid the subtle distinctions in the scenes. This
choice was necessarily made because of the need for highly
reliable content analysis. In categorizing the films in the
above categories, reliability between the research director
and the research assistant was consistently above 90%. This
was in fact due to the concreteness and discreteness of the
content analysis categories.

These categories were selected after viewing many of the
films. If the footage shot did reflect the personality of
the movie maker, the somewhat gross categories should reveal
differences in the interests and concerns of the movie makers.
For example, if a person was aloof and disinterested in hu-
man beings, this might be reflected in his movies by his fail-
ure to take pictures of people. Similarly, if one was inter-
ested in fooling around and having a good time, this might
similarly be reflected in his movies. It appeared difficult
to maintain adequate reliability and at the same time intro-
duce such categories as showing people in an inferred positive

(19)

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mood, seeming to be angry, etc.

More complex ratings were made on the quality of the in-
dividual's scenes. Ratings were given to exposure, focus,
quality and theme development. In the four categories, rat-
ings were given on a one to three scale. The exposure was
rated with a one for under-exposed, two for properly exposed
and three for over-exposed. Focus was given a one if it was
accurate, two if it was moderately inaccurate, and three if it
was clearly out of focus. Theme development was given a three
for highly developed, two for some continuity and one for lit-
tle continuity within the scene or relation to contiguous
scenes. This proved to be one of the most difficult cate-
gories to rate and reliability fell to the low eighty per-
cents. The development of the theme had to be determined
within the individual scenes and in relation to the previ-
ous and following scenes. This often entailed a replay of
the entire sequence of the scenes. Had the movies been more
seriously taken, this problem might have been greater. As
it was, much of the contents of the films were disjointed
scenes, and theme development was not particularly outstand-
ing. The quality of the scene was an overall estimate of
the accuracy of the exposure, focus and the ability of the
series of contiguous scenes to tell a story. Scenes that
were technically adequate and which attempted to tell a
story were given a three and scenes that were of poor tech-
nical quality and showed little coherence were given a one.
A final quality relevant measure was taken by simply count-
ing the number of scenes which were taken. It was assumed
that if too many short scenes were taken, the film would most
likely be of poor quality, and if only one or two long scenes
were taken without much internal organization and continuity,
the film would also be of poor quality.

These categories of content analysis proved to be adequate,
reliable, discrete and concrete. Every roll of film was coded
with the name of the movie maker and its content analysis. The
number of seconds devoted to each content category was deter-
mined. The total per category was then divided by the total

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number of seconds of movie and a percentage calculated for
each category of each film. The problem posed by the films that
had been destroyed in developing was solved by averaging the
percentages in each category for the different films. This
provided an overall average percentage. of film that was devoted
to each category. This yielded a percentage for the amount of
footage which did not show any people, which was further cate-
gorized into showing buildings, tents, scenery, etc. In this
way, the content of the footage was converted to an average
percentage of all the films taken by all of the individual boys
and comparisons between boys having different numbers of films
were made possible.

In summary then, a percentage for each of the content
categories was determined for each individual for all the
different films that he took.[2] This percentage was used in
two ways: to determine the differences between the laissez-
faire, moderate involvement and intense involvement groups,
and to correlate the percentages with a variety of personal-
ity, attitudinal and behavioral measures. The ratings for
the quality of the films were averaged over the different
films, and thus a subject could have an overall average rat-
ing exposure of 1.5, a focus of 2.1 and an average of 16 dis-
crete scenes per roll of film.

One final instrument was developed specifically for the
study of involvement in movie making: an attitude scale
about movie making. From a pool of items, forty-one items
were selected to assess various facets of movie making. The
forty-one items sought to determine the respondent's attitudes

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A delay in the granting of research funds limited the movie
making project to four instead of five weeks for each of the
sessions. In addition, eleven rolls of film were destroyed
in developing. These films came from the session in Colorado
and the first session in Vermont.

(21)

about the satisfaction of movie making in terms of producing
quality movies, having fun taking movies, the artistic im-
plications of movie making, and the technical problems in
movie making. Items were also included about the extent to
which the individual was willing to invest time and money
for movie making. Using standard Likert scaling procedures,
sixteen items were selected from the original forty-one items
on the basis of face validity and the ability to discriminate
between the extreme quartiles of subjects. When possible,
reversed items were also included for the purpose of estab-
lishing construct validity. These sixteen items had a split
half reliability on alternate items for the sample of twenty-
one subjects of .86. This scale was administered at the con-
clusion of camp in the two sessions in Vermont. Because some
boys left camp early and could not fill out the scale, only
twenty-one subjects were available from the two groups. In
terms of scaling criteria, the split half reliability of .86
indicates the adequacy of the scale in terms of reliability.
The complete questionnaire is included in Appendix A. Those
sixteen items used in the scale were presented in a six point
agree, disagree, Likert format and are as follows:

5. Movie making could never be more than a hobby
   for me.
7. Movie making is more for women than for men.
9. A movie is one of the best ways of showing what
   the life around you is like.
12. I like fooling around with a movie camera, but
    would not want to do the work for a serious movie.
15. I would need the help of a good teacher before
    I could make a good movie.
16. Movie making is a lot of fun.
19. Only rich people can afford to make movies.
21. It would not be worth it to me to make a
    serious movie.
22. Most people do not know how easy it is to make
    movies.
23. I could never learn to use the kind of equip-
    ment that professional movie makers use.
26. I would rather watch a good movie than try to
    make one myself.
28. How hard is planning a good movie?
29. How hard is learning how to use the equipment?
30. How hard is getting the pictures in focus?
31. How hard is being sure that there is enough
    light for good pictures?

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41. How many dollars would you be willing to pay
for a movie making outfit?

The responses to these sixteen items were combined to
form the movie making scale. These scores were included in
the data on movie making and were correlated with the per-
centages for the different categories in the content analy-
sis and the average ratings of quality of the scenes.

In summary, it was hypothesized that the greater the
involvement in movie making, the more movies would be made
and the better the quality of movies made. Comparisons of
these variables will be made among the three different
groups.

While differences in the content of the films could not
be formulated into specific hypotheses, exploratory studies
were conducted to determine if the different means of intro-
ducing movie making would be reflected in the content of the
movie making. Thus the average percentages of different
content categories were compared for the three groups. Scale
scores on the movie making scale were also compared for the
two conditions that occurred in the Vermont camp.

HYPOTHESIS II: THERE IS A CORRELATION BETWEEN THE CONTENT
OF THE MOVIES AND THE PERSONALITY OF THE MOVIE MAKER

The second part of the study dealt with the more gener-
al notion that the movie making was in fact psychologically
useful or therapeutic because it provided an opportunity to
express and ventilate attitudes, conflicts, psychological
needs and personality characteristics. If in fact movie
making is a psychologically valuable experience, it follows
that the content of the movies should be related to the per-
sonalities and characteristics of the movie makers. Thus
an exploratory correlational study was undertaken to deter-
mine the nature and extent of the relationship of movies to
specific personality and attitudinal characteristics. The
content categories of people, no people, objects, etc. were
correlated with twenty-one measures of personality characteris-
tics on Cattel's High School Personality Questionnaire (1963).
Fourteen of these personality characteristics are measured
on a ten-points scale in terms of standard scores. Seven
second-order factor and derived scores are also included
in Cattel's High School Personality Questionnaire.

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The High School Personality Questionnaire was selected because it covered a wide range of general personality traits. It is a factor analyzed instrument which seemed most appropriate for poverty youngsters because the content of the items appeared more relevant than a more culture bound and pathology-oriented scale such as the California Personality Inventory. The High School Personality Questionnaire has been used extensively in research and it is adequate with regard to the point of problems of reliability and validity. A description of these variables is found in Appendix B.

In order to determine the relationship of the movies to attitudes, scores of scales derived from the Teen-Agers Opinion Survey were correlated to the content of the movies. The Teen-Agers Opinion Survey was specifically developed for evaluating a program for poverty teen-agers. A pool of over 400 items was compiled covering various facets of attitudes about one's self, society, anomie and personal responsibility, etc. The scale was factor analyzed using principle components that were rotated to a verimax or orthoginal solution. The items defining these scales were then scored using unweighted item scores. These scales were used in both the Colorado and New York programs.

#1. This scale comprises a dimension that espouses the value of work in terms of providing satisfying and meaningful experiences and being a necessary prerequisite for achieving success and leading a good life. It has an optimistic quality which suggests that opportunities are available to improve one's status and live comfortably and meaningfully.

#2. This scale is made up exclusively of items regarding the personal responsibility of the individual. In such situations as getting a speeding ticket, going with a crowd that gets him in trouble, going on welfare, etc. is the individual considered responsible for getting himself in these difficulties, and is he responsible for solving these problems?

#3. This scale is composed of bipolar adjectives presented in a semantic differential format. It is essentially an evaluative dimension which includes such adjectives as good-bad, smart-stupid, useful-useless, etc. On this scale the respondent rates how he feels adults would evaluate him.

#4. This scale assesses the potency of group action for such things as ending wars, stopping police brutality,

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changing the laws so they are fair to all people, etc. A
high score on this scale indicates that the individual feels
that groups can be effective agents for social change.

#5.   This scale is one which assesses anomia or aliena-
tion. Items suggest that the world is indifferent and unkind
to the individual, and that interpersonal relations are cyni-
cal and opportunistic. It further suggests that the indi-
vidual is passive when compared to the forces of fate that
control him. It characterizes interpersonal relations as
Machiavellian and anti-humanistic.

#6.   This scale is a self-esteem scale, and is composed
of eleven bipolar adjectives. These items are the same as
the adult's view items which are essentially an evaluative
dimension.

These six reliable and valid attitude scales were cor-
related with the content analysis categories of movie mak-
ing and with measures of the quality of movies taken.[3]

The final group of variables that were correlated with
the quantity and quality of the movies made were behavioral.
These variables include ratings by the staff on psychiatric
impairment, interpersonal skill, skill as a worker, liking
of camp, being changed by camp, potential as a junior coun-
selor, chances for upward mobility and being liked by the
staff. Other behavior variables include the sociometric
status of the movie maker. His status was defined in three
different situations. They are (1) his popularity as a
tent mate, (2) his popularity for being chosen to work on
a project with and (3) his popularity for being chosen to
go on a camping trip with.

Other behavioral variables which were correlated to
quantity and content of the movies include performance on
a ring toss experiment, and the estimated performance that
the movie maker would score as estimated by the group. The
age of the boy and whether he had returned to camp in succes-

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[3]The items defining the individual scales and the psychome-
tric characteristics of the scales, i.e. split half reliabil-
ity and test-retest correlations, are available from the author.

(25).

sive years were correlated also. Finally, a point by serial
correlation between the movie variables and being Black or
Spanish was computed. In summary, the content, quality and
quantity variables in the movie making study were correlated
with twenty-one measures of personality characteristics on
Cattel's High School Personality Questionnaire and six atti-
tudinal dimensions from the Teen-Agers Opinion Survey and
twenty-nine behavioral variables.

These variables were correlated with the average per-
centage of footage that was devoted to the following types
of scenes: 1. buildings, 2. tents, 3. scenery, 4. animals,
5. plants. In regard to the activities of the individuals
filmed, they were correlated with whether the footage ap-
peared to be acted and whether the individuals were involved
in the following activities: 1. fooling around, 2. nature
activities, 3. recreation, 4. work.

The people in the footage were categorized, and average
percentages were computed for the footage which contained
adults and boys together, boys alone, adults alone and
footage without people.

With regard to the quantity and quality of film, the
following measures of quality of film were correlated with
the psychological, attitudinal and behavioral variables.
These ratings of (1) the amount of useless film, (2) the
degree to which the theme is developed, (3) the accuracy
of the focus, (4) the accuracy of the exposure and (5) an
overall quality rating for each scene. The number of films
used and the average number of scenes per film were also
correlated with these variables.

In summary then, the research design sought to test two
hypotheses: The first hypothesis is that there would be a
greater number of films taken and that these films would
be of better quality in the higher involvement conditions
in which movie making was introduced to the youngsters. In
other words, where youngsters were highly involved in the
introduction of movie making they would take more and
better movies. Youngsters in the moderate involvement and
in the laissez-faire condition would be expected to take
progressively fewer numbers of films and the films would be
of poorer quality.

The second hypothesis tested the existence of a functional

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relationship between the content of the movies taken and the psychological, attitudinal and behavioral characteristics of the movie maker. The existence of such a relationship would make more plausible arguments that movie making is potentially a therapeutic experience for the individual. If, however, the content and quality of the movie making is unrelated to his personality, it is difficult to argue for the potential of movie making as a therapeutic experience.

A small sub-study was included on the relationship between scores on the attitudes about movie making scale and the movies that the subjects made.

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III. Results

RESULTS OF THE HYPOTHESIS STATING THE GREATER THE INVOLVEMENT IN MOVIE MAKING, THE GREATER THE QUANTITY AND QUALITY OF FILMS TAKEN

The means and standard deviations for all the movie making variables were computed for the three conditions in introducing movie making. F ratios were calculated for the laissez-faire, moderate and intense involvement conditions for introducing movie making. Where significant F ratios were found, T tests were computed to test the significance between the three different means. Sheffe (1960) has criticized the use of multiple T tests as being too lenient a measure for the test of significance between more than two means. This leniency was compensated for by the fact that T tests were only computed where a significant F ratio had been found. This procedure combined with the use of a more conservative level of significance is an acceptable way of counteracting the leniency of computing multiple T tests. The following table gives the means, standard deviations and N's for each of the three conditions in which movie making was introduced. These statistics are given for the quantity and quality variables of the films taken under the three different conditions. This results in seven separate one by three analyses of variance designs.

			Moderate	Intense	Laissez-Faire
Number of	VAR 1	MEAN	2.154	2.615	2.750
rolls of		SD	0.890	1.193	0.683
film		N	13	13	16
	F ratio = 1.563	p = .222			
Useless	VAR 2	MEAN	3.115	10.677	10.025
film		SD	7.713	7.855	10.319
		N	13	13	16
	F ratio = 2.995	p = .062			
Number of	VAR 3	MEAN	12.900 p=.008	13.985	20.562 p=.008
scenes per		SD	4.196	4.476 p=.023	8.925 p=.023
roll		N	13	13	16
	F ratio = 6.037	p = .005			
Exposure	VAR 4	MEAN	2.415 p=000	2.015	1.731 p=000
		SD	0.356 p=.019	0.451 p=.019	0.332
		N	13	13	16
	F ratio = 11.688	p = .000			

(28)

Focus	VAR 5	MEAN	1.862	2.015	1.906
		SD	0.437	0.398	0.362
		N	13	13	16
	F ratio = .520	p = .599			
Quality	VAR 6	MEAN	1.954	1.960	1.744
		SD	0.488	0.335	0.299
		N	13	13	16
	F ratio = 1.659	p = .203			
Theme	VAR 7	MEAN	2.131	2.185	2.094
Development		SD	0.461	0.351	0.377
		N	13	13	16
	F ratio = 1.188	p = .829			

Table #1 presenting the means, standard deviations and N's
(number of subjects) on the quantity and quality of the films
for the different degrees of involvement in introducing movie
making. The F ratio and its probability are given for each
variable in each of the three conditions. Where significant
F's occurred the value for T is shown for the differences be-
tween the significantly different means. The means being com-
pared can be identified by the identical probability for the T's
as shown in the two conditions being compared.

The following are descriptions of the results of the seven
different analyses of variance:

1. Number of films The Colorado laissez-faire condition
boys took a mean number of 2.750 films, the moderate involvement
group had a mean of 2.154 films, and the intense involvement group
had a mean of 2.615 films. This yielded an F ratio of 1.563 which
is significant at the .222 level. The number of films, therefore,
did not significantly vary within the three groups and there does
not seem to be an ordered relationship with regard to the degree
of involvement.

2. Percentage of useless film In regard to the percentage
of useless films taken, the Colorado laissez-faire condition had
a mean percentage of 10.025% which was close to the intense in-
volvement mean of 10.677%. In the condition of moderate involve-
ment, the percentage of useless film was only 3.115%. This
yielded an F ratio of 2.995 which has a probability of .062.
While approaching statistical significance, this result does not
seem to bear out the hypothesis that greater involvement leads
to better quality of films since the moderate involvement group
had the least useless film compared to the other two groups
which were essentially the same.

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3. Number of scenes per film The Colorado group did take significantly more scenes per roll of film having a mean of 20.562 in contrast to the moderate involvement mean of 12.900 and the intense involvement of 13.985. This seems to be related to the fact that the boys took a larger proportion of scenes of sports events at the Colorado camp. There was less opportunity for building and more in the way of sports and recreation during the Colorado session. It could be interpreted that this larger number of scenes per roll of film is an indication of poor quality, but such an interpretation is quite equivocal.

4. Accuracy of the exposure In examining the nature of the quality of the different films, we find that a significant F ratio occurred for the mean exposure rating. The Colorado group had a mean of 1.731 which indicates underexposure. The intense involvement group had an exposure of 2.015, and the moderate involvement group had a mean exposure rating which indicated over-exposure of 2.415. This yielded an F ratio of 11.688 which is significant beyond the .000 level.

5. Accuracy of focus The accuracy of focus was essentially the same for all three groups. The means for the moderate group were 1.862, for the intense group 2.015 and for the laissez-faire group 1.90. This yielded an F ratio of .520 which had a probability of .599. There were no essential differences between the groups.

6. Overall quality In terms of overall quality the groups had means of 1.954 for moderate involvement, 1.969 for intense involvement and 1.744 for the laissez-faire group which yielded an F ratio of 1.659 which has a probability of .203. Again, there seemed to be no significant differences between the groups.

7. Degree of theme development In terms of theme development, the average rating for moderate involvement was 2.131, intense involvement 2.185 and laissez-faire 2.094. This yielded an F value of .188 with a probability of .892. All of the groups seemed to have moderately developed themes in the footage and they did not differ significantly.

Because of the exploratory nature of the study, F tests and T tests were computed for each of the content categories that were included in the correlational part of the study of movie making. Specifically, comparisons were made between the percentages of film in the categories such as

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buildings, tents, scenery, etc. in the three different
conditions. No apparent or meaningful trends occurred as
a function of the degree of involvement in introducing
movie making. However, this data is included in Appendix C.

SUMMARY OF DATA

Summarizing the findings with regard to the quantity and
quality of films, there seems to be a lack of a trend which
is related to the degree of involvement in movie making.
Where occasional significant differences exist, they do not
appear to be related to the degree of involvement. It should
also be noted that the number of films taken per boy in all
cases was rather small. The mean number was slightly more
than two films per boy. A slight increase in the laissez-
faire condition and the intense involvement group is apparent,
but in terms of absolute numbers, the boys did not take many
films. In general, it seems clear both from the experience
of working with the boys in film making and the number of
films taken, that boys were not particularly engaged by film
making. There were many other activities which seemed to
attract more attention. To the project director's knowledge,
none of the boys have continued making serious films. Of the
forty-two boys in different programs, none has bought a movie
camera, or has asked through the year to use the movie camera
belonging to the camp. Clearly, movie making is not so in-
herently engaging that it will attract boys by its mere presence.
The degree to which interest can be generated remains unan-
swered. Thus, the null hypothesis that differences in the
degree of involvement in introducing movie making was not
related to the quantity or quality of movies made cannot be
refuted on the basis of the above data.

HYPOTHESIS II: THERE EXISTS A FUNCTIONAL RELATIONSHIP BE-
TWEEN THE PSYCHOLOGICAL CHARACTERISTICS OF THE INDIVIDUAL
AND THE CONTENT AND QUALITY OF HIS MOVIES

An exploratory correlational study sought to determine
the nature and extent of the relationships between the con-
tent and quality of movies and the personality of the movie
maker. This study is based on data collected from twenty-
six subjects in the two Vermont sessions.

If movie making per se is a therapeutic experience,
it would seem that the content of the movies would be re-
lated to the movie maker's personality. The content ought

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to reflect the movie maker's conflicts, needs, motivations, attitudes and behavior, etc. Such a functional relationship between the movies made and the personality of the movie maker must be established before movie making can be said to be therapeutic. Putting aside for a moment the question of whether or not such a hypothesis can be tested, we will examine the nature of the correlational data.[4] In all cases, high percentages of film devoted to the content categories or high quality ratings were related to high scores on the psychological variables, except in the case of negative correlations.

Clearly, the data precludes a refutation of the null hypothesis. In all, fifteen categories of content and four categories of quality ratings were correlated with the twenty-one personality characteristics from Cattel's High School Personality Questionnaire (1965), six attitudinal dimensions from the Teen-Ager's Opinion Survey and twenty-nine behavioral ratings.

The content categories included pictures that were taken of buildings, tents, scenery, animals and plants. Other content categories were concerned with whether the people in the pictures appeared to be acting, fooling around, involved in nature activities, involved in recreation, working or playing sports. Content categories also designated whether the scenes were of adults alone, boys alone, or adults and boys together, and finally whether there were no people in the movies.

The quality categories included the percentage of useless film, a rating of the theme development for each scene, a rating of the overall quality of each scene and a rating of the accuracy of the focus for each scene. In total, the correlation of the nineteen content categories or ratings with the fifty-six psychological variables yielded a matrix of 1,064 product moment correlation coefficients. By chance alone one would expect 53.2 statistically significant correlation coefficients at the 5% level of significance. In fact,

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[4]The correlational matrix of 1,064 product moment correlation coefficients resulting from the correlation of nineteen movie making variables with fifty-six personality variables has not been included in this report, but is available from the author. The statistically significant correlations are presented in Appendix D.

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74 correlation coefficients were found to be significant at
the .05 level for a two tailed test of significance.

Only one trend seemed to occur in the pattern of the
correlation coefficients. By chance at the 5% level of sig-
nificance, one would expect 42 statistically significant cor-
relation coefficients in the matrix of fifteen content cate-
gories and the fifty-six psychological variables. In fact,
41 significant correlations were found out of the 840 cor-
relation coefficients computed. These cannot be considered
a chance occurrence. There did not appear to be any par-
ticular patterning to these statistically significant correla-
tion coefficients.

In the quality categories -- that is, the categories of
percentage of useless film, theme development, overall quality
rating and accuracy of focus -- one would expect to find 11.20
correlation coefficients that are significant at the 5% level.
However, in this matrix of 224 correlation coefficients, 33
were found to be statistically significant. This is 21.8 co-
efficients above what would be expected in a chance distribu-
tion of the significant correlation coefficients in this ma-
trix. A test of the disproportionate distribution of signi-
ficant correlation coefficients was computed using the Chi
Square. The X^2 value was significant beyond the .01 level.
Clearly, the quality of the movies rather than the content of
the movies was correlated with the psychological, attitudinal
and behavioral variables of the movie maker. If movie making
says something about the movie maker according to this data,
it is not related to the subjects of his photographic atten-
tion, but instead to the quality of his productions. In
short, people who take quality movies are different psycho-
logically from those who do not take quality movies. This find-
ing will be discussed in the discussion section of this paper.

THE OPINIONS ABOUT MOVIE MAKING SCALE

Another exploratory correlational study was undertaken
to determine the relationship of movie making to the opinions
about movie making scale. No significant correlations were
found with any of the psychological, attitudinal or behavioral
variables with scores on this scale. The following is a list
of correlation coefficients between the movie making scale
scores and the movie variables themselves: buildings .148,
tents-.207, scenery-.080, nature activities .053, animals .424,
plants .206, acted .115, people fooling around-.147,

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recreation -.068, work -.092, sports -.098, adults and boys together -.100, boys alone .003, adults alone .024, no people .264.

The movie scale score was correlated with the quality ratings of the movies. The following are the correlations between the scale and the estimates of quality: useless film .2029, total number of films used -.149, theme development .048, overall quality rating .074, focus .049, number of scenes per roll of film .340. This scale has adequate psychometric characteristics; e.g., a split half reliability of .86. As has been noted by LaPaiere (1934) and many others since, this scale is essentially unrelated to behavior. That is, the attitudes expressed on the scale were not related to the content or quality of the movies made by the subject.

Another minor finding of the study was the lack of relationship between Cattel's High School Personality Questionnaire (1963) measure of creativity and all but one of the content categories and quality estimates of the films. Creativity was only significantly related to the percentage of film devoted to nature activities. This correlation was .431. The opinions about movie making scale was correlated -.073 with Cattel's measure of creativity.

These insignificant relationships create difficulties for a discussion of the results. The above results preclude a refutation of the two null hypotheses, namely that (1) different degrees of involvement in the introduction of movie making would not be related to the number and quality of films made by the movie maker and (2) there would not be a functional relationship between the content and quality of the movies and the personality, attitudinal and behavioral characteristics of the movie maker. Some explanations of the lack of significant findings will be discussed in the following sections as well as some interpretations that can be made from these findings.

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IV. Discussion

In the absence of definitive data, discussion of insignificant results is necessarily speculative. In regard to the first hypothesis that a greater number of movies of better quality would be made the more youngsters were involved in movie making, some minimal conclusions can be drawn from this data. If one assumes that nothing more was done in the three different conditions then to simply expose boys to movie making equipment, one can conclude that there is little evidence from this sample of boys that movie making is so inherently engaging that the mere presence of equipment is enough to stimulate movie making activities. Forty-two boys were exposed to movie making, but they did not take large numbers of movies or particularly good movies. One minimal conclusion that seems tenable then is that simple exposure is not enough to engage youngsters in movie making.

Where it has been suggested that mere exposure is enough to start youngsters making movies one must consider other explanations. For example, were those boys who were simply exposed to movie making self-selected in some way and thus atypical? The problem raised by the social climate of the movie making group must also be considered. It may be that movie making per se is not engaging, but the nature of the group involved in movie making is engaging.

It seems to the author that claims that simple exposure to a mechanical device is sufficient to start someone on a creative and educational experience are unrealistic. In the case of movie making, it is doubtful that such an exposure would be sufficient for all but the most exceptional of potential movie makers.

It has been the experience of the summer camp program that permissiveness has not proved to be particularly fruitful for these poverty teen-agers. Permissiveness is often misconstrued as neglect. Permissiveness might be appropriate for youngsters who have been constrained by an overly structured and bureaucratic educational experience. However, this is not the typical case with poverty teen-agers. All too often they have been neglected and left to their own resources. The boys attending the camp have not taken the opportunities offered by permissiveness to start themselves on engaging and satisfying activities. In response to this lack of success with permissiveness, the program has become more structured.

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This is intended to lead the boys to the point where they
can make choices for themselves and shape their activities to
their own needs. By limiting the number of choices available
to them, it was found that the boys became more involved in
activities. Such a structured starting point seems essential.
Over and above the structured activities of the camp, limited
permissiveness was offered. For example, an ever full lumber
pile was available for anybody who was interested in building
something. In summary, however, it was felt that sufficient
structure was necessary to minimize the downside risk of in-
appropriate permissiveness. This was combined with free situ-
ations, and in this way the opportunities of permissiveness
were available while the risks of failure and frustration
were reduced. Regarding movie making, it would seem that in-
struction from competent instructors would be necessary in
order to get youngsters to the point where they could parti-
cipate actively on their own.

Originally, it was thought that the lack of differences
in the experimental conditions may have been due to the compe-
tition with other activities in the summer camp. At the
Vermont Camp sessions, boys were able to build, run a bull-
dozer and go on over-night hikes, etc. It may have been
that movie making suffered in competition with these more en-
gaging activities. In order to test this notion about the
failure to greatly interest boys in movie making, a winter
movie making project was implemented in New York City. All
of the camp boys from the Vermont camp were informed of the
project, and every effort was made to get them involved in the
project. Only six boys participated in the movie making pro-
ject and their interest was brief. This number of movie mak-
ers was not sufficient to make statistical comparisons to the
summer camp sessions. Therefore, content analyses were not
undertaken. Movies were immediately edited into a composite
movie in an effort to show boys how larger movies are made,
and thereby increase their interest. The failure of this pro-
ject supports the conclusion that movie making did not be-
come a popular activity for these boys even without the
competition of activities in the summer camp.

If one can accept this minimal conclusion that movie
making is not as inherently engaging as some have suggested,
then one must consider other factors which contribute to the
success of some movie making projects. These factors may
include the social climate of the movie making group, a
sample of youngsters who are predisposed toward movie making

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and the charismatic qualities of the movie making project
leaders, etc. In summary, this data raises some questions
about the claims for movie making per se. Movie making would
be a gold mine if the mechanical devices were in fact as en-
gaging as claimed.

Turning to the second hypothesis that there is a functional
relationship between movie making and the personality of the
movie maker, one is again confronted with an absence of defin-
itive findings. In the absence of significant relationships
between the movies and the personality of the movie maker, it
is difficult to argue that movie making is a therapeutic ex-
perience. All behavior and interests express things about the
individual, his needs, his attitudes, his conflicts, etc.
Granted that different activities permit the individual to
express himself in different degrees of salience, it is dif-
ficult to argue that movie making offers an unexcelled op-
portunity for self-expression. Building, acting, peer re-
relations, etc. all express aspects of the individual's person-
ality. For some individuals, such as Raymond, movie making
may be the ideal outlet for self-expression, but this may
not be the best outlet for many others. Claims for the
therapeutic value of movie making may be based on observa-
tions of individuals like Raymond, and Raymond may be atypi-
cal.

Even if movie making does express the individual's needs,
etc. and expressing one's self is therapeutic (this is an
important assumption for those who advocate that movie mak-
ing is a therapeutic experience) then there is still a ques-
tion as to whether this study could detect the private mean-
ing that movie making had for the individuals. As dis-
cussed previously, the content categories had to be sufficiently
large so as to be able to differentiate groups of individuals.
A compromise had to be found between the gross and obvious cat-
egories which will not include sufficient numbers of people
to make statistical comparisons possible. Small and precise
categories also tend to depend on a high level of inference
which creates problems for the reliability and validity of
such a content analysis. For statistical purposes one is
forced to accept the gross categories which may not be able
to get at the private meaning of movie making for the in-
dividual. Such a private meaning might only be expressed in
the more subtle aspects of the content such as whether people
were smiling and friendly in their activities or hostile and
unfriendly, etc.

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In addition to the problems involved in the ability of
the content categories to detect private meanings, the per-
sonality, behavior and attitude measures themselves while
reliable and valid may be imprecise with regard to the highly
idiosyncratic needs of the individual. The lack of precision
possible with current methodology may preclude detection of
subtle relationships. It should be noted that the results
of the evaluation of psychotherapy have been equivocal.
Psychotherapy which is understood better than movie making
has eluded systematic evaluation. It may be that currently
acceptable methodology is not adequate to assess psycho-
therapy and, in this study, to detect the relationship be-
tween the content of the movies and the personality of the
movie maker.

The lack of relationship between the content and
quality of the movies precludes a rejection of the null hy-
pothesis that there is no relationship between movies and
the personality of the movie maker. This data would suggest
the need for caution in viewing claims for the therapeutic
value of movie making. The burden of proof ought to lie
with those who suggest that movie making in and of itself
is therapeutic. If it is therapeutic, the mechanism by
which the therapy works ought to be delineated. Is making
movies therapeutic because it is an expressive activity, or
does it work as a behavior therapy by desensitizing anxiety
producing stimuli? Consideration should also be given to
what types of individuals are suited to this type of therapy.

SUMMARY

The fact that the quality of movies was more related to
personality than to content suggests that movie making is an
ability which people have in varying degrees and that this
ability rather than the content of movies is more related to
the personality of the movie maker.

While the above data suggests that movie making per se
is yet to be demonstrated as the critical variable in the
success of the projects, there is no evidence that movie
making should be dropped because of its failure to do what is
impossible; i.e., engage youngsters, provide an entre'e for ed-
ucation, and be therapeutic for them, etc. The important
component in these functions of movie making is the people.
Movie making is an activity which brings people together
and as such is effective. To deprive people of what they

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are comfortable in doing, have generated an interest in and
centered their activities around is to deprive them of the
vehicle which creates cooperation between youngsters and adults.
These social relationships and mutual trust are facilitated
by movie making, but not by movie making alone. Teachers·
do best in those areas which enthuse them, and thus movie making
is critical for the success of these projects. The success
of movie making, however, must be considered in the context
of a very relevant and important social situation characterized
by satisfying and valuable interpersonal relationships.

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APPENDIX A - OPINIONS ABOUT MOVIE MAKING

1. Movies are too complicated for most people to make.
2. Silent movies are almost as good as sound movies.
3. If I had a camera and enough film, I would take lots of movies.
4. Anyone with the right equipment can make good movies.
5. Movie making could never be more than a hobby for me.
6. It is very difficult to plan and make a really good movie.
7. Movie making is more for women than for men.
8. The equipment necessary for making a movie costs too much for most people.
9. A movie is one of the best ways of showing what the life around you is like.
10. Movie making equipment is too complicated for most people to understand.
11. I would like to take movies of my home and neighborhood.
12. I like fooling around with a movie camera, but would not want to do the work for a serious movie.
13. Movie making is an art, like painting.
14. Movie making is not very interesting.
15. I would need the help of a good teacher before I could make a good movie.
16. Movie making is a lot of fun.
17. Only artistic people can make really good movies.
18. I would be interested in a career as a movie maker.
19. Only rich people can afford to make movies.
20. Movie making is much more of a man's job than playing a violin.
21. It would not be worth it to me to make a serious movie.
22. Most people do not know how easy it is to make movies.
23. I could never learn to use the kind of equipment that professional movie makers use.
24. If I made a serious movie, I would want to show what life is really like, not how glamorous and exciting it can be.
25. I would sooner play my favorite sport than take movies.
26. I would rather watch a good movie than try to make one myself.
27. I wish my school had classes in movie making.

How hard are the following parts of movie making?

28. Planning a good movie.
29. Learning how to use the equipment.
30. Getting the pictures in focus.
31. Being sure that there is enough light for good pictures

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32. Editing or putting together the films that you take.

The most fun about movie making is:

33. Trying to tell a story.
34. Seeing yourself and your friends in a movie
35. Taking pictures of your friends.
36. Just fooling around with the camera.
37. Carefully putting together the movie.
38. Did you ever use a movie camera before you came to camp?

Yes ___
No ___

39. Does anyone in your family own a movie camera?

Yes ___
No ___

40. Had you seen yourself in a movie before you came to camp?

Yes ___
No ___

41. How many dollars would you be willing to pay for a movie making outfit? $ ___

42. If you could make a movie about anything you wanted to, what would the movie be about.

43. What more do you think that you need to know about movies and movie making?

APPENDIX B

Twenty-one Variables on Cattel's (1963) High School Personality
Questionnaire

LOW SCORE DESCRIPTION

HIGH SCORE DESCRIPTION

1. Reserved, detached, cri-
tical, cool. (Sizothymia)

Outgoing, warmhearted, easy-
going, participating (Affecto-
thymia, formerly cyclothymia)

2. Less intelligent, con-
crete-thinking (Lower scho-
lastic mental capacity)

More intelligent, abstract-
thinking, bright (higher scho-
lastic mental capacity

3. Affected by feelings,
emotionally less stable,
easily upset, changeable
(Lower Ego strength)

Emotionally stable, faces real-
ity, calm (Higher Ego strength)

4. Phlegmatic, deliberate,
inactive, stodgy, (Phleg-
matic temperament)

Excitable, impatient, demanding
overactive (Excitability)

5. Obedient, mild, conform-
ing (Submissiveness)

Assertive, independent, aggres-
sive, stubborn (Dominance)

6. Sober, prudent, serious,
taciturn (desurgency)

Happy-go-lucky, impulsively
lively, gay, enthusiastic,
(Surgency)

7. Expedient, evades rules,
feels few obligations (Weak-
er superego strength)

Conscientious, persevering, staid,
rule-bound (Stronger super-ego
strength)

8. Shy, restrained, diffi-
dent, timid (Threctia)

Venturesome, socially bold, un-
inhibited, spontaneous, (Parmia)

9. Tough-minded, self-reli-
ant, realistic, no-nonsense
(Harria)

Tender-minded, dependent, over-
protected, sensitive (Premsia)

10. Vigorous, goes readily
with group, zestful, given
to action (Zeppia)

Doubting, obstructive, individ-
ualistic, internally restrained,
reflective, unwilling to act
(Coasthenia)

11. Placid, self-assured,
confident, serene (Un-
troubled adequacy)

Apprehensive, worrying, depres-
sive, troubled (guilt proneness)

12. Group-dependent, a
"joiner" and sound follower
(group adherence)

Self-sufficient, prefers own de-
cisions, resourceful (Self-suf-
ficiency)

13. Undisciplined, self-con-
flict, follows own urges,
careless of protocol (Low
integration)

Controlled, socially-precise,
self-disciplined, compulsive
(High self concept control)

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14. Relaxed, tranquil, tor- Tense, frustrated, driven, over-
pid, unfrustrated (Low ergic   wrought (High ergic tension)
tension)
15. Extravension
16. Anxiety
17. Coertertia
18. Independence
19. Neuroticism
20. Leadership
21. Creativity

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APPENDIX C – TABLE SHOWING MEANS, STANDARD DEVIATIONS, AND
N'S OF CONTENT CATEGORIES BY LEVEL OF INVOLVEMENT

VARIABLE DESCRIPTION	VAR NO.		MODERATE GROUP	INTENSE GROUP	LAISSEZ-FAIRE GROUP
Buildings	VAR 1	MEAN	1.608	2.854	7.237
	F=1.770	SD	2.405	5.776	12.588
	p=.184	N	13	13	16
Tents	VAR 2	MEAN	3.115	3.931	4.544
	F=.214	SD	4.053	6.929	6.115
	p=.808	N	13	13	16
Scenery	VAR 3	MEAN	8.485	16.569	17.069
	F=1.718	SD	11.849	14.927	13.617
	p=.193	N	13	13	16
Animals	VAR 4	MEAN	3.262	9.746	11.856
	F=1.934	SD	5.353	11.324	15.779
	p=.158	N	13	13	16
Plants	VAR 5	MEAN	0.	1.169	0.319
	F=1.072	SD	0.	3.719	0.748
	p=.352	N	13	13	16
Acted	VAR 6	MEAN	6.446	4.692	0.
	F=2.140	SD	12.028	10.186	0.
	p=.131	N	13	13	16
Fooling Around	VAR 7	MEAN	55.692	25.885	31.312
	F=6.657	SD	30.962	14.925	18.878
	p=.003	N	13	13	16
Nature Activities	VAR 8	MEAN	6.354	8.823	4.750
	F=.498	SD	11.817	13.088	7.954
	p=.612	N	13	13	16
Recreation	VAR 9	MEAN	3.177	10.654	0.
	F=4.995	SD	6.032	15.359	0.
	p=.012	N	13	13	16
Work	VAR 10	MEAN	16.738	9.592	12.425
	F=.568	SD	20.861	12.468	17.328
	p=.572	N	13	13	16
Sports	VAR 11	MEAN	0.392	4.048	9.950
	F=2.037	SD	1.414	9.443	18.978
	p=.144	N	13	13	16
Both	VAR 12	MEAN	33.415	19.677	12.494
	F=4.539	SD	22.044	20.780	13.318
	p=.017	N	13	13	16
Boys	VAR 13	MEAN	31.315	35.254	42.781
	F=1.328	SD	21.505	18.291	18.315
	p=.277	N	13	13	16

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Adults	VAR 14	MEAN	9.923	6.692	4.262
	F=1.918	SD	9.502	8.463	5.125
	p=.160	N	13	13	16
No people	VAR 15	MEAN	16.192	30.038	31.381
	F=5.351	SD	13.881	16.374	19.428
	p=.045	N	13	13	16

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APPENDIX D

STATISTICALLY SIGNIFICANT CORRELATION COEFFICIENTS BETWEEN
THE CONTENT CATEGORIES OF THE MOVIES AND THE PSYCHOLOGICAL,
ATTITUDINAL AND BEHAVIORAL VARIABLES OF THE MOVIE MAKER.
ONLY CORRELATION COEFFICIENTS WHICH ARE SIGNIFICANT AT THE
.05 LEVEL FOR A TWO TAILED TEST OF SIGNIFICANCE ARE PRESENTED
BELOW. THE ENTIRE CORRELATION MATRIX IS AVAILABLE FROM THE
AUTHOR.

CONTENT OF FILM CATEGORIES.

1. Buildings--Buildings were not significantly correlated
with any of the variables.
2. Tents--Tents were not significantly correlated with any
of the variables.
3. Scenery--Percentages of film devoted to scenery was
related to the following variables:
        a. neuroticism, .468
        b. personal responsibility, -.457
        c. pre-tent popularity, .406
        d. post-tent popularity, .684
        e. pre-work popularity, .464
        f. pre-trip popularity, .464
        g. raw score ring toss, .515
4. Animals--Percentage of films devoted to animals was cor-
related with the following variable:
        a. self-esteem, .411
5. Plants--Percentage of film devoted to plants was cor-
related with the following variables:
        a. tendermindedness, -.420
        b. anxiety, -.541
6. Acted--Percentage of film acted was correlated with the
following variables:
        a. intelligence, .489
        b. interpersonal skill, -.420
        c. length of time at camp, .606
7. Fooling around--Percentage of film showing people fooling
around was correlated with the following variables:
        a. self sufficiency, .547
        b. personal responsibility, .481
        c. perceived director's rating, -.564
8. Nature activities--Percentage of film devoted to nature
activities was correlated to the following variables:
        a. self control, .419

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b.   creativity, .431
                    c.   adult's view, -.587
                    d.   pre-trip popularity, .613
9. Recreation--Percentage of film devoted to recreation
activities was correlated with the following variables:
                    a.   perceived director's rating, -.540
                    b.   director-boy discrepancy, .485
                    c.   age, -.485
                    d.   raw score ring toss, .607
                    e.   own rank ring toss, .547
10. Work--Percentage of film devoted to people at work was
correlated with the following variables:
                    a.   apprehensiveness, -.454
                    b.   change in sociometric status tenting, -.560
                    c.   change in sociometric status trip, .470
11. Sports--Percentage of film showing sports activities
was correlated with the following variable:
                    a.   post-trip popularity, -.422
12. Adults and boys--Percentage of film devoted to adults
and boys together was correlated with the following variables:
                    a.   doubting, -.465
                    b.   psychiatric impairment, .456
                    c.   raw score ring toss, .454
13. Boys alone--No significant correlations were found be-
tween this category and the psychological variables.
14. Adults alone--Percentage of film devoted to adults alone
was significantly correlated with the following variables:
                    a.   pre-trip popularity, -.457
                    b.   change in popularity for tenting, -.489
                    c.   change in trip popularity, .457
15. No people--Percentage of film devoted to scenes without
people was significantly correlated with the following vari-
ables:
                    a.   doubting, .444
                    b.   work skills, -.427
                    c.   pre-trip popularity, .534
                    d.   director's rating, .446
                    e.   average ring toss rank, .555
                    f.   own rank ring toss, -.476

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16. Useless film--The amount of useless film was correlated
significantly with the following variable:
                    a.   apprehensiveness, .427

                              (49)

17. Theme development--Average rating for the development of themes in the footage was correlated with the following variables:
a. emotional stability, -.414
b. apprehensiveness, -.460
c. leadership, .498
d. pre-tent popularity, .468
e. post-tent popularity, .487
f. director's rating, .465
g. being Spanish, .482

18. Overall quality--Average quality ratings were correlated with the following variables:
a. outgoing, -.493
b. emotional stability, -.50
c. happy-go-lucky, .465
d. doubting, .417
e. apprehensiveness, -.548
f. leadership, .591
g. extroversion, .413
h. junior counselor potential, -.469
i. pre-tent popularity, .564
j. post-tent popularity, .411
k. change in work popularity, .416
l. raw score ring toss, -.516

19. Focus--Average focus ratings were correlated with the following variables:
a. outgoing, -.414
b. emotional stability, -.503
c. happy-go-lucky, .406
d. tender-minded, .415
e. extroversion, .413
f. leadership, .578
g. anomia, -.467
h. work skills, -.458
i. junior counselor potential, -.416
j. pre-tent popularity, .492
k. post-tent popularity, .533
l. director's rating, .423
m. average ring toss rank, .452
n. being Spanish, .483

(50)