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"The Magic 5 Workshop": Developing an instructional television production format and testing its ability to induce learning in grade 1-3 students.

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"THE MAGIC 5 WORKSHOP":

DEVELOPING AN INSTRUCTIONAL TELEVISION PRODUCTION FORMAT

AND TESTING ITS ABILITY TO -INDUCE LEARNING

IN GRADE 1-3 STUDENTS.

by

RICHARD M. DUNN

A Thesis/Media Production
Submitted to the Faculty of Graduate Studies
through the Department of Communication Studies
in Partial Fulfillment of the Requirements
for the Degree of Master of Arts at
The University of Windsor

Windsor, Ontario, Canada

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TO MY FAMILY

CAROLYN, MY WIFE

JOY, MY CHILD

TOGETHER

MY LIFE

ABSTRACT

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ABSTRACT

Producers and researchers have often been on opposite sides of a gap which tends to lessen the effectiveness of instructional television. The producers do the television work and the researchers observe. Production research can unify these two bodies under one common banner: program improvement. Production research is seen as a necessary step in program development and not a time wasting impediment.

This Thesis/Media Production traces the genesis of a children's instructional television program, "The Magic 5 Workshop", from the idea stage through to its eventual testing on a target audience. A four step production research approach is followed throughout the course of this study. An Annotated Script was generated and produced in the studios of the Media Centre of the University of Windsor.

This work is termed as "formative research" where a television production develops at a more or less constant pace to the point where it is ready for testing. This means that the television program is developed with the idea that it is not ready for large scale marketing and that many more changes will most likely occur before it is ready. The only way to discover what these changes are to be is to subject the program to testing with a target audience. The results obtained aid the producer in modifying his/her program to the point where it can be as effective as possible.

The next step after this would be "summative research" where the program would continue to be tested on a target audience. These are the long term, after-the-fact studies where the program is used by a much larger target audience and the results are then compared to those of the formative testing. Changes to the program may still be made at this point but basically this type of research serves to offer further empirical support for the effectiveness and audience appeal of the program.

The test procedure was three-tiered in nature where the Thesis Production was compared to two other test stimuli: a nine minute prototype program of "The Magic 5 Workshop" produced in 1980 as part of a COST40-505 project and a non-video presentation of the content of the thesis program.

It was found that the Thesis Production had been improved from the prototype version. The students who viewed this program enjoyed a greater increase in comprehension from the Pre-Test to the Post-Test than did the students in the other two test situations. The students and teachers who viewed the Thesis Production of "The Magic 5 Workshop" found it to be an enjoyable and beneficial teaching aid.

Theories regarding both identification and recognition were not supported: identification was found to be an important appeal variable and recognition was not found to be present in either video test situation. This was the direct opposite of what this researcher had predicted would take place.

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There was some question about the overall importance of cognitive development with regards to children's comprehension of instructional programming. The test scores were inconclusive in support of the belief that older, more cognitively developed children will always exhibit greater comprehension of televised instructional material. The Post-Test results indicated that sometimes age/development was a significant factor and at other times, it was not.

The results also appear to indicate that there may be a type of "natural decay" in attention behaviour that is exhibited by children of this age range (six to nine years) as they view ITV in their classroom. At both video test sites, the viewing attention levels dropped considerably toward the end of the program, even though the endings in each case differed greatly in terms of length and visual and aural complexity.

As well, data seemed to point to grade two as the proper target audience for this program. The attention level results, as well as the opinions of both the teachers and the students, tend to support this assumption.

Finally, the possibility that the variable, socio-economic status, is highly significant in a study of this nature is raised. The results of both the Pre-and Post-Tests reveal that the students at one school scored consistently higher on many of the test questions than did the students at the other two schools. This school (Site #3, Non-Video presentation), was located in an area that was described as affluent. The other two schools

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were located in a middle-class area (Site #1, COST40-505 prototype program) and an inner-city area (Site #2, Thesis Production), respectively.

ACKNOWLEDGEMENTS

First, and foremost I must thank my Heavenly Father for getting me this far. He has answered my "thesis prayer" every day for a year.

I gratefully acknowledge my committee's contribution to this thesis. Many thanks to Hugh Edmunds for the advice given some time ago, "Just get the thing done". I have kept that idea in the forefront of my thinking and now the "thing" is done. I also wish to thank Dr, Sue Martin for all of the encouragement and advice she gave me back in the summer of 1975 when "The Magic 5 Workshop" was first tried as a developmental theatre project in some Windsor parks.

I would particularly like to acknowledge Professor James Linton's immense contribution to this project. He encouraged and convinced me time and again over these long months that what I was doing was valid and useful research. He allowed me the freedom I needed to work and offered the guidance to keep me on track.

I would also like to express my gratitude to Dr. Tom Carney and Dr. Walter Romanow for teaching me what communication is really all about. Thanks as well to Janis, Fern, Chris and Mark (wherever you are !) who listened, sometimes even patiently, to all my griping about this place. Thanks to Sheila and Ann for smiles and candy.

Most of all, I must thank with all my heart my little family. To Joy, who only cried sometimes when I neglected her, ·

I give you my time. And to Carolyn, who has shown me with all her heart and love what the true meaning of helpmate is, I give you my heart. I thank God for the gift you are to me and pray that each day draws me closer to be worthy of your love.

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PREFACE

As the naive student approaches the television studio of a university, he/she is at once surrounded by what seems a technological cornucopia. Suddenly visions of manipulating the medium that has so long been admired from a distance becomes a reality. The possibility of giving life to a television program of his/her own design is a very real one. Whether or not the program is a success is a relative judgement based in part on the opinions of an instructor and the subjective viewpoint of the student. However, whether or not the program is effective in reaching its stated goals can often hinge upon the quality of the production research that has gone into the design of the program.

This researcher was once a "naive student" deeply impressed by the cameras, switcher and audio board of the studio. From this position he graduated to the role of media researcher, with an interest in what makes an effective television program work, particularly in the area of children's instructional television. This led to a deep involvement in the field of production research and from there to this thesis.

The form of this present work is termed a Thesis/Media Production, where the creation of media materials for eventual testing comprises the bulk of the research. However, these media materials are not created solely for testing. In using the Thesis/Media approach, the ongoing research is integrated into the production process. Each production choice is based

upon prior research so that the resulting program is formative in nature. The program is presented to a target audience whose opinions and reactions are measured by means of formal testing procedures. After this formative research process is completed, the producer knows what changes (if any) will improve the program and is thus prepared to progress to the next test stage which is summative research.

The present research traces the path of a children's instructional television program, "The Magic 5 Workshop" from its inception in prototype form in the spring of 1980 to its eventual testing in an improved stage in May of 1982. The production research process was rigidly adhered to throughout. The problem was to improve upon the prototype of the program by basing the thesis production as much as possible on existing literature in the area of the child/television relationship. The researcher's own intuition certainly came into play, but it is hoped in a way that enhanced rather than detracted from the production.

Chapter One offers a rationale for the Thesis/Media Production approach through a thorough discussion of the production research process. As well, a "new" four stage production research approach is outlined. These four stages formed the framework that has been followed in this research.

Chapter Two presents the results of the testing of the prototype of "The Magic 5 Workshop". Although not considered as such at the time of its creation, this program became the first stage in this Thesis/Media research. Many of the ideas that have been incorporated into the thesis production were conceived and tested in the prototype,

Chapter Three surveys the present usage of instructional
television in the classroom. This chapter outlines the possi-
ble roadblocks that the researcher could encounter in the tran-
sition stage from production to classroom utilization. The
researcher was aware that no matter how effective a program is,
it is as if it does not exist if it remains on the shelf. By
understanding some of the environmental and school system con-
straints that are inherent in classroom TV use, the researcher
was able to build controls into the program design which might
serve to counteract those problems.

Chapter Four surveys the research literature from the field
of children and television. This is an extremely broad area
and it has been limited to those researches that are particu-
larly relevant to this Thesis/Media Production.

Chapter Five presents the objectives and component parts of
"The Magic 5 Workshop" along with a discussion of what makes
this program a useful teaching aid. Finally, everything is
brought together in the form of an Annotated Script. This
script is what was produced in the studio and includes a com-
plete description of why each production choice was made.

Chapter Six outlines the methodology that was utilized in
this research. This was a somewhat complicated process because
of the testing structure that was chosen. The thesis production
was subjected to both formative and comparative testing. This
necessitated the development of a complex methodology which
proved both innovative and successful. This chapter includes
a discussion of the study design and the various test instruments

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that were developed. As well, the hypotheses that were used in the comparative study are outlined and discussed in this chapter.

Chapter Seven surveys the results of the comparative analysis where the effectiveness of the Thesis Production in relation to two other stimuli was tested.

Chapter Eight offers conclusions and is presented in three parts. First, the results of the hypotheses used to compare the Thesis Production to the prototype program and the non-video presentation are interpreted and discussed in detail. In the second part, the concentration is on the formative research on "The Magic 5 Workshop". In section three, general conclusions are drawn concerning the success of the entire project with the expressed intent of stating exactly what has been discovered as a result of this thorough production research process.

Chapter Nine presents important recommendations for future researchers who choose to involve themselves in Thesis/ Media production projects. Although the researcher enjoyed a great deal of success with this project, there were nonetheless several severe limitations that were encountered that perhaps can be avoided in future projects.

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CHAPTER 1

INTRODUCTION

The Production Research Continuum

Production research can be seen to occur on a continuum
with extremes at either end. On the one hand, one can picture
a program that is developed, produced and presented to the pub-
lic, with only simple ratings as a measure of its success. At
the other extreme, one can look at the rigorous pilot program-
ming and testing that has been conducted by the Children's
Television Workshop in the development of "Sesame Street"
(Ball and Bogatz, 1970, 1973; Lesser, 1972). The production for
this CTW program lasted approximately one year with a budget of
five million dollars.

The research proposed for this current project can be placed
somewhere close to the middle point on this production research
continuum. To be sure, ratings were important for this produc-
tion as it was presented to a target audience and their reactions
and opinions were an important gauge of the program's success.
Equally important however, was the careful testing to which this
program was subjected. This testing process provided concrete
data which simple observation of the audience's behaviour could
not supply.

Definition of Production Research

This researcher sees production research as a unique process
whereby a television program is developed systematically. From

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the idea stage to its final testing, the production follows
step by step procedures which can prove more effective than
the intuitive program design. The program is based upon re-
search literature directly related to the program content.
This thesis reports on the systematic development of the child-
ren's instructional television program, "The Magic 5 Workshop".

<div align="center">Definition of Terms</div>

For the purposes of this thesis, the following definitions
will be operationalized:

PRIMARY ELEMENTARY SCHOOL AGE CHILDREN:

Since most of the existing research in the field of children
and television terms "children" as any child from three to twelve
years of age, a more exact term was needed for the current research.
For the purpose of this project, the term "children" shall refer main-
ly to children of primary elementary school, in grades one to three
and between the ages of six and nine.

MASS COMMUNICATION/MASS MEDIA:

These terms often include television, radio, newspapers, maga-
zines, etc., under their broad scope, but for the purpose of this
study they shall most often be used in reference to television.

CHILDREN'S TELEVISION PROGRAMMING:

This will refer to cartoons, puppet-shows, adventure shows,
and programs such as "after-school and Saturday afternoon specials".

EDUCATIONAL TELEVISION OR ETV:

No suitable definition comes to the surface from the research
literature because the term has been used rather loosely to mean
both programs that can be viewed at home or at school. For example,
"Sesame Street", "The Electric Company" and "Mister Rogers" are all
considered educational, when they are viewed at home but when they

are viewed in the classroom, they could also be termed as "instructional television". Also, ETV can refer to more adult-centred programs such as "Cosmos" and "The Body Human". In this research this term shall be used to refer to "children's educational television" which consists of those programs that children view at home, that are not considered to be of a "purely" entertainment nature. These are the type of programs that will most often be seen on such non-commercial broadcast systems as PBS in the United States and TV Ontario in Canada. "Sesame Street" is a good example of this type of programming.

CLASSROOM/INSTRUCTIONAL TELEVISION OR ITV:

Although many individuals term television that is used in the classroom as ETV, it is important to be more specific here. Therefore, classroom or instructional television (ITV) will refer to those types of TV programs that are produced especially for classroom use. They are usually of a "how to" or information nature with very little entertainment content. They can be used either to teach or aid in the teaching of a specific lesson. ITV can be packaged in many forms: Closed-circuit television (CCTV), Community Antenna Television (CATV, or cable television), Videocassette cartridge, Videodisc and in some cases, via satelite.

The Need For Production Research:
A Rationale For The Thesis/Media Approach

The practical relevance of production research cannot be minimized. It is the one sure way "to bridge the gulf that we all recognize exists between media researchers and media practitioners." (Linton, 1981:1) What practical measures must be

taken to bridge this gulf? Consider first how the rift begins:

> ....with a few notable exceptions, the theoretical researcher and his applied counterpart have had little to say either in the development of programs or in the assessment of their effects upon different classes of people.
> As a result, production has depended very often on artistic, intuitive approaches, while summative research on outcomes has been largely aimed at main effects only. The opportunity provided by television for the study in a non-coercive manner of human perceptual and cognitive processing of information and skill aquisition, and of affective variables has been relatively ignored. (O'Bryan, 1976:1)

This quote points to the fact that there are many areas that researchers could and should have explored with regard to television production, but they have not chosen to do so. The gulf, therefore, is more the responsibility of the media researchers than the practitioners. The producer is after all just doing his/her job and if the researcher wants to help, he/she has to learn something about the production process and how to best assist the producer with research data or providing ideas for evaluation.

Instead the media researchers seem to have accepted a lesser state in trying to explain, almost always after the fact, what comprises the motivating "whys" and "whats" of television viewing behaviour, especially in relation to child audiences. The "hows" of TV production, which are fundamentally important, are left almost entirely up to the media practitioner. These "hows" are more or less a collection of accepted, standardized techniques, which, although sometimes complicated, are by no means impossible to learn or understand. Yet, the media researchers often seem to accept (perhaps blindly) that technical/artistic choices such as

camera angle, acting style, lighting key, costuming and set design, must always be made by the producer/director. The completely illogical takes place when the researchers act as if they have no intuition nor feel for a medium they have been studying for a great many years. Instead they choose to remain at a distance with the computers and questionnaires. What this usually means is that the researchers never fully realize the fact that the precise methodologies they employ can often result in very concrete and objective viewpoints. This also means that the producer will miss out on valuable data that would serve to improve his/her program.

What this appears to point to then is the fundamental basis for this gulf---the media researcher researches post hoc and the media practitioner simply does. The problem increases when the researcher who, although able to talk about television as a medium, knows and understands nothing about the mechanics of TV production and then tries to make comments based merely on observation and inference. If they have never been in a working studio they probably have no concept of how a show comes together. Conversely, if the practitioners never leave the studio catacombs but still reject the researcher's work, can they ever know if their programs have achieved their goals? Since the media consumer is ravenous and will most often take what is offered, ratings simply are not a valid response measure of effectiveness. Moreover, if the producer's objectives are information or education-oriented, a methodical assessment of results is even more important.

This continuing separation between "art" and "science" allows for much of what this researcher refers to as "remedial sociology" which manifests itself in the effects studies on the

mass media (e.g. the effects of televised sex and violence on TV audiences, the effect of TV on political socialization and the effect of TV commercials on children's basic language skills). Such sociological studies are termed "remedial" because it seems that the point to them is to look to solve a problem after it has happened rather than to try to predict potential difficulties and build in controls that might help to prevent them. Perhaps there would be less need for these "remedial" studies if there could be a regular marriage between those who <u>do</u> television and those who <u>study</u> it.

Linton refers to the work of William Belson (former member of the Audience Research Department of the B.B.C.) in further clarifying the reasons for this gulf between researchers and practitioners and what may be done about it:

> Belson (1967) points out that the underutilization of television research by the television industry is largely the result of the attitudes of both the researchers and the production personnel, and the constraints (mainly lack of time) built into the television production process. While there is little we can do about changing the latter, we can certainly have considerably more control over the attitudinal aspects....(Linton, 1981:2)

This passage is extremely important to this current research for it not only highlights the fact that there is a need for production research to be done in general, but it also lends support for the argument that it <u>could</u> take place at the university level. The reason for this belief is that most universities have the necessary physical plant (studio, equipment, technicians) and because they work for the same employer, the media researchers and

producers tend to relate to each other in some measure of harmony. Also, at the university level, time is not normally as much of a constraint, as the programs usually do not have to be produced to satisfy immediate consumer demands. Attitude, however, may still be a problem for both sides. First, one has the producers who, by and large, are more concerned with intuition than with in-depth research. Perhaps if the academic research is not too tedious and clearly broken down as to how inclusion of the research results could enhance the program (i.e. guarantee greater audience satisfaction), the attitudes of the producers could change. Secondly, one finds that the production process may appear too mechanical and chaotic for the academics more accustomed to controlling their research from behind their desk. Here again, perhaps if the researcher is assured that his theoretical positions will be considered in the program construction and the research methodologies will be adhered to, without undue interference from the practitioners, then clearly any residual aspects of such attitudes can be circumvented.1

In the broader view (beyond the university environment) how will this union come about? Linton (1981), again referring to Belson, states that clearly researchers must become involved in and learn about the production process. This will instill in the researchers a sensitivity to the creative process. It should thereby make the academic research approach more pertinent so that whatever research is done can be utilized by the producers. No better examples exist of good production/research relationships than those which occur at the Children's Television Workshop (CTW) in New York

and at TV Ontario (TVO) in Toronto. Given the talent and in-
ventiveness utilized by these organizations, programs such as
"Sesame Street" and "The Electric Company" produced by CTW and
"Readalong" and "Parlez-Moi" produced by TVO may have been
successful as mere entertainment vehicles alone. But the massive
amount of formative and summative research that was part of the
creation of these programs led to their unparalleled success as
children's ETV shows.

In scrutinizing the research done at CTW and TVO, one finds
another important aspect of production research clearly underlined.
The producer is not bound to adhere rigidly to the dictates of the
research. The research should aid the creative process, not hinder
it. This concept is constantly reinforced in the research of the
two organizations previously mentioned; not only is there a marriage
between production and research, but it is also a partnership with
each partner having specific duties. This is how TVO states its
case:

> Central to the evaluation model is TVO's belief that
> the utility of research depends on the relationship
> between the producer and the researcher. The reseacher
> in this relationship assumes a dual position: the re-
> searcher is familiar enough with the process to under-
> stand the priorities and practicalities of television
> production, but detached enough to assess the project
> objectively. It is the role of the researcher to facili-
> tate decision making by contributing relevant information
> acquired through formal evaluation techniques; and it is
> the role of production staff to use the information pro-
> vided by research. (Gillis and Nickerson, 1981:30)

With this Thesis/Media Production, the researcher found
himself in a unique position. As both producer and primary
researcher the opportunity existed for the utilization of re-
search data from the beginning of the program design. Such an

experience is not always available in the "real world" and certainly not in commercial television. The opportunity proved to be both positive and negative, in the extreme. This "one-man-team" structure that this project called for is a radical departure from the massive group efforts launched by most educational television production houses. This proved positive in that all research and creative decisions could be made by one source. It was negative, however, because there was never any one other person sufficiently close to the work-in-progress who could provide input for those decisions. Still, it must be stated that the positive aspects of this solitary approach to production research outweighed the negative experiences. Nevertheless, the work could have been dispatched more quickly and more efficiently with a group effort.

The production research approach proposed in this thesis is involved with, among other things, the creation of media materials for eventual testing. A study about production does not involve creating media materials, but instead leads one to study some aspect of the production process. However, it must be pointed out that the resulting media creation is still based on current theory and research about production. In the case of this present project, the researcher has had to wade through both the many diverse propositions about and approaches to children's instructional television and the considerable literature in the field of how children relate to and learn from television. The thesis program then is a "picture puzzle" of sorts constructed as it is on the basis of many bits and pieces of literature from

the whole sphere of the child/TV relationship. It has meant including a number of theoretical premises in the conceptual framework of the show that on face value appear incapable of working. Also, this project called for the development of an original methodology for testing those premises..

All this aside, the result had to be a program that the child audience would find interesting, enjoyable and easy to comprehend. In the "real world" of group efforts this is where the partnership between the media researcher and media practitioner would certainly feel the strain.[2] Too much research could lead to a dry program, and something that is too artistic leaves very little to test because there might be precious little in the show for which to test. Getting the proper mix is difficult but possible, as one has tried to show in the creation and study of this program.

The Four Stages of Production Research

The preceding work has been an attempt at providing a rationale for the Thesis/Media Production using the production research process. It is now necessary to outline the four stages of production-oriented research that were carried out in this thesis.[3]

(1) Audience Research:

> This category includes (a) the classic demographic or social characteristic research concerning target audiences, plus (b) viewing behaviour research which investigates the way in which audiences perceive and interpret media materials. (Linton, 1981:6)

This category was seen as most important because this researcher believes that understanding the target audience is the first step in designing a television production. Television

should be seen simply for what it is: an extremely efficient communications _medium_, a means to an end. But the audience is _not_ simple. It is composed of diverse individuals each bringing something to, and doing something with, that medium. They have expectations and pre-dispositions that must be considered from the outset. This would seem especially important for the adult producer to remember if they wish to produce for the child audience. If the adult does not learn to appreciate and understand the unique world of the child's television experience, that person cannot begin to think of what to present to that child. A strong concentration in this area has helped this researcher attempt to bridge the gap between his intellectual and artistic biases and to answer the simple question of what form of televised materials a child likes and from which he/she will learn.

(2) Mediation Research:

> Using a term borrowed from Baggeley, Ferguson and
> Brooks (1980), this type of research examines the
> effects of various technical or stylistic media
> variables (e.g. camera angle, lighting key, etc.).
> It obviously involves the examination and under-
> standing of the viewing process covered in viewing
> behaviour research. (Linton, 1981:6)

The area described by this definition appears to have been given the least amount of consideration by production researchers in recent children's TV analysis. Again, the problem appears to be that researchers are willing to rely on the producer's personal visualization and intuition with regard to program choices, and a valuable area goes unstudied. If mediation research is done it is usually done after the fact.[4] Certainly, once an experienced producer/director gets to the studio he/she usually has a strong sense of what will "work" and what will not. Yet, there is still

much to be learned from mediation research. If the producer has considered the audience and mediation research carefully, he/she will be one step closer to achieving a wider acceptance of his/her program by an extremely diverse audience. Once this research is conducted, it would then follow that production choices would be much simpler; only certain things (e.g. lighting, colour, costumes, etc.) will work for that show and for that audience.

The mediation research appears in the Annotated Script which occupies part two of Chapter Five. The script clearly shows the way in which the audience and mediation research have come together in a unified way to create a strong theoretical base for this project.

(3) <u>Evaluation or Assessment Research</u>:

The definition of this category as supplied by Linton is clear but somewhat incomplete for the purposes of this thesis. For this reason a second part or (b) portion has been added to the definition.

    (a)   This category entails the examination of techniques used to make judgements about the effectiveness of media materials on either (a) a summative basis (i.e. long term, after-the-fact studies) or (b) a formative basis (i.e. immediate studies, even ones done during production with the idea of modifying the production in process on the basis of the results obtained). (Linton, 1981:6) (letter (a) added)

    (b)   This type of research is perhaps more aptly termed Historical Evaluation Research where the use of the media in society is studied. Also considered is (are) the reason(s) why this medium has or has not been successful. (Definition (b) mine)

The evaluation described in the (a) part of this definition can be considered both summative and formative in nature with regard to this thesis. Chapter Two reports on the results of

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the prototype program which was produced in Professor James

Linton's Production Research and Design class (Communication

Studies 40-505). This first project laid the groundwork for

the thesis production. Therefore, the thesis evaluation can be

considered a summative study. On the other hand that first

program pointed out a great many flaws in the program design and

the present production is by no means perfect, so this study is

also formative in structure.5

One of the most challenging aspects of this stage of pro-

duction research was the search for a standardized methodology

for evaluation of this project. The structure of the test design

required test materials that would ask the same basic questions

at three test sites, with three different stimuli. In the end,

no existing methodology could be found that would satisfy the

evaluative criteria of the project so that the researcher had to

utilize parts of research methodologies from several different

studies. As well, the researcher had to design a test instrument

that was unique to this Thesis/Media Production. The complete

methodology is discussed in Chapter Six.

Under the (b) part of this definition the historical usage

of the medium is discussed within the context that a given project

is to be tested. For example, in this thesis a brief history of

the use of instructional television in the classroom is presented

with the expressed purpose of trying to ascertain what may or may

not happen in that environment that might effect the acceptance

of the thesis production of "The Magic 5 Workshop". This research

is necessary because the program was not tested in a vacuum and

that special world called the elementary school classroom was a

totally new experience for this researcher. An added value of this type of research was that one got a better notion of what the teachers' impressions of ITV use might be and this aided in the development of test materials for eliciting responses from the educators involved in the study.[6]

This historical-research is presented in Chapter Three and although it is not the most important aspect of this production research model, it must, for purposes of logical thought appear before the audience and mediation research.

(4) Content or Subject Matter Research:

> This involves locating sources concerning a subject on which a production is based, compiling information on that topic and organizing such information. (Linton, 1981:5)

This category was not given primary importance and indeed must seem greatly out of sequence here. This apparent oversight has been done purposely for this particular project and might not be handled this way in the development of other shows. With the design of this show one asked a chicken-and-egg type of question: what must come first, the design (the structure of the program) or the content? In this instance it was decided that the design was most important because the researcher was aiming for a program that had an original style that would appeal to the largest audience. The content of the show had to be sufficiently interesting to engage the attention of the child audience and it was believed that this choice could be made well after the program design was completed. Also, discussions with educators and children, plus a thorough literature review, indicated that a young child's viewing preferences are highly eclectic so that the

subject matter could be chosen from an extremely broad spectrum of educational materials. On the other hand, more work was needed on the design because the researcher wanted it to be such that any topic in the social sciences and humanities could be used with it. It was believed that this was the only way that "The Magic 5 Workshop" could show its maximum potential.[7]

Still, it was important to search for some help regarding the subject matter that would best demonstrate how this program could be used as a teaching aid. Guidance on program content was sought from the educational community, in particular, the Windsor Separate School Board.[8] The materials they supplied were excellent and guaranteed the usefulness of the subject matter for the classroom, especially since no TV program existed in the suggested topic area. The use of the content is fully outlined in the Annotated Script in Chapter Five.

Conclusion

Having delineated the approach to be taken in this research, it is hoped that the reader has a fuller appreciation of the nature of a Thesis/Media Production. Working in this manner is still comparatively new in relation to the more traditional social science perspectives such as effects research. Also, the research for the construction and evaluation of the program had to be "child-centred", which is not always easy for adult researchers to accept. What is meant here, of course, is that an attempt was made to always keep the audience in mind both <u>during the production</u> and afterwards <u>during the testing</u>.[9] The main underlying premise was that the child must be able to <u>comprehend, not just enjoy</u> a program

if learning   is to take place. What the child truly believed about the program, ITV in the classroom, or the medium of television itself, had to be accepted and not reinterpreted if it did not conform to the researcher's expectations. No excuses have been made for the results obtained in testing. They have been explained in reference to what the children experienced and not what this researcher felt they should have experienced.

The chapters to follow outline the step-by-step process that helped to bring "The Magic 5 Workshop" to the stage of its present development.

Notes to Chapter 1

[1]The ideas for this preceding argument are based on this researcher's experiences at the University of Windsor. He has worked extensively with the producers in the Media Centre, as well as with several of the professors in the Department of Cummunication Studies. Observations and discussions in these two environments have led the researcher to believe the attitudes mentioned could be changed in the way discussed here. However, as this researcher has never worked in any other university setting, he cannot say with any surety that this case would hold for all situations involving academic researchers and producers.

[2]Noble (1975:96) points out that in an interview with a consultant for "Sesame Street" that the consultant did run into a conflict regarding research and artistic choice. It seems the researcher in question made it quite clear that much of the original content proposed for the show was above the heads of pre-schoolers. His advice was ignored in favour of proven attention gaining techniques.

[3]Professor Linton (1981) offers four categories (stages) of production research. They are not listed here in the same sequence as he has suggested, but rather the order in which they appear is an indication of the relative importance of each category to this work, as decided by this researcher.

[4]The list of research projects done in this "after the fact" fashion is quite lengthy and perhaps with good reason. Obviously, the researchers had little or no production experience and did not know what to study until they saw the program itself or it was pointed out to them. This research is nonetheless quite valuable, but one is advocating the stronger use of it in the beginning design stages and not only on the summative level.

[5]This researcher does not wish to lead the reader to believe that Chapter Two takes pre-eminence over the audience and mediation research. Clearly, this chapter must appear in the order it does for the purposes of logical progression.

[6]In point of fact, several of the statements from the Positive/ Negative chart outlined in Chapter Three were tested directly in the Post Viewing Questionnaire that the teachers completed (see Appendix #8a).

[7]This thesis program has been designed with future shows in mind and not on a "one shot" basis. The research conducted in this project should lay the groundwork for a series to be produced which could then be subjected to summative testing.

[8]This group was chosen because the researcher had had previous contact with the Board and found the experience to be extremely rewarding. The present project was no exception.

[9]The test results indicate that while this latter point was adhered to quite well, the researcher sometimes overlooked the former in the show itself   (see Conclusions Chapter Eight).

CHAPTER 2

A Review of the Results of the Original
"The Magic 5 Workshop" Production:
The First Step In This Thesis/Media Production

As stated previously, this study has evolved from original

research conducted in the COST 40-505 class. At that time this

researcher produced a rather crude prototype of an instructional

television program entitled, "The Magic 5 Workshop" and tested

it on grade one, two and three students from Prince of Wales

School. The results, while incomplete and lacking rigour, were

quite encouraging. For example, many of the production elements

in the program (e.g. humour, fast-paced action, short sequences)

engaged the interest of the children throughout most of the show.

Also, informal testing indicated that at least some learning had

taken place.[1] As well, the response of the three teachers of the

classes tested was generally positive, providing further support

for the program's potential as a useful teaching aid.

Using the production research process put forward in the

COST 40-505 course meant taking a different approach to television

production, one that provided valuable insights into program de-

sign. The test results for the initial effort indicated that a

more in-depth review of the literature was needed and that future

programs should concentrate on the control of specific learning

and production variables. It seems obvious to this researcher

that this essential information would not have been gathered had

less involved production and research practices been employed.

19.

In the COST 40-505 course the students are given a free hand in the creative process. The work is basically experimental, following the research guidelines outlined in Chapter One of this submission.[2] All that the instructor asks is that whatever one decides to produce be <u>at least</u> based on some theoretical and empirical literature in the chosen subject area. The original "Magic 5" production was born out of this researcher's previous experience in children's theatre, but did not have strong support from the research literature.

The program presented the problem solving technique of using the "Magic 5 W's"----the questions Who? What? Where? When? and Why?. This technique was explained to the children via studio recorded sequences of imagination games and of the actors demonstrating how these questions could be used to find out information about different subjects. The program primarily dealt with and demonstrated to the audience ways to learn about the nature of transportation in Windsor. Slides of different modes of city transportation were included to assist in this aim.

When the statement of purpose for the first "Magic 5" program was submitted, it was filled with lofty idealism and biased opinions. There were so many flaws in that initial design that only sheer determination caused the show to be produced. Having completed only a meagre literature search, the researcher/producer was still governed by intuition and the "I don't-know-why-it-works-it-just-does!" types of style choices. It was a necessary trial and error period because the experience of that production pointed out something of what can and cannot be done with regards to children's instructional television.

The interest in producing this program stemmed from two year's work as an actor in professional children's theatre. The desire was to transfer techniques employed with children in both theatrical performances and creative dramatics workshops to the production processes of children's ITV. Research into this field led the researcher to believe that such an approach was possible; indeed all indications pointed to success.

The protoype program had five main objectives: (1) it was to be entertaining and at the same time (2) it was to be educational; (3) it was hoped that the children would assimilate the "5W" concept of problem solving and be able to use it; (4) also it was deemed important by this researcher that the children not identify with any one character as this might detract from the program's main theme; and finally (5) it was hoped that the children would learn something about transportation in Windsor. These objectives met with varying degrees of success.

It was decided that the target audience would be children in grades one, two and three, roughly between six and nine years of age. This audience was chosen because the researcher felt from his own experiences that this grade and age group was rather homogeneous in terms of their creative and learning abilities.[3] Also, older children always seemed a more difficult group with which to work.

Imagination activities were incorporated into the program,again because the researcher knew them to be successful as attention gaining devices from his theatre experiences. High school students were chosen as the talent in an attempt to suppress wishful identification

(Feilitzen and Linne, 1975) hoping instead that the children would adopt a recognition viewing orientation. The latter notion has been formulated by Noble (1975) and unlike the process of identification, does not involve a loss of identity in the viewing experience. The point here is that "viewers can recognize whether a character is good or bad (For example), foolish or clever, by comparing that character with people known to them, or with other film or book characters with whom they are familiar" (Noble,1975:47). Children can then become involved in a program if they see a character who is similar to someone they know, perhaps a relative or a neighbour, or as in the case of the first "Magic 5" show, an older brother or sister. The main content/subject matter was based as much as possible on transportation in Windsor in a further attempt to reinforce this recognition phenomenon.[4] The premise was that this approach would stimulate an orientation on the part of the children that would facilitate learning. It was believed that this would happen because the program would engage their interests and hold their attention as a form of "perceptual anchor" (Noble, 1975) by keeping them consciously focused on things that they may have already experienced first hand (i.e. they probably had used buses, cars, trains, etc., in and around Windsor) and subsequently succeed in keeping them "tuned-in" to the "Magic 5 W" approach.

When the program was ready for testing, the researcher brought it, a video cassette player and a colour television monitor to Prince of Wales School[5]. Three classes were tested in all, with approximately twenty-five students in each class. A brief explanation of the purpose of the program was given to each class prior

to viewing and the whole class saw the show together in the class-room. Immediately after viewing, each class was interviewed as a group to gauge their reactions to the program, and the discussions were audiotaped for future analysis. The teachers were given a simple questionnaire which was retrieved two days later. The re-actions of these two groups formed the basis for the analysis of this first project.

Results of the Five Program Objectives

Objective #1: Entertainment

The children in all three grades appeared to be entertained by this program, or so it seemed from this researcher's perhaps biased observations. During the post-viewing discussion, the students generally indicated that they had enjoyed the show and that they would like to see more of this type of program in the future. The grade one students prepared drawings and the grade two and three students wrote letters as a test of what they liked most about and learned from the show.[6] Generally, the artwork and letters clearly stated specific things that the children liked, but did not give much indication that any long term retention of materials (learning) would result. (see Appendices 1a and 1b for some examples)

Objective #2: Education

It is a bit more difficult to ascertain whether or not this program was educational. No methodology was developed to test comprehension or recall of the information presented in the pro-gram other than the discussion and the drawings/letters. The problem with these testing procedures was that the researcher did

did not give clear, definite instructions to the students regarding their responses. Since the researcher did not ask especially relevant questions, he did not receive definite responses. Overall, the drawn and written responses were basically content-centred which indicated that they at least retained something from the program. (see Appendices 1a and 1b for drawn and written response examples, respectively) However, there was not a strong commonality across the students' responses so no clear pattern of comprehension and/or recall was evident.

The teachers responded that they felt that the students did learn something from the program, but they could not give specific examples. (see teacher's questionnaire example, Appendix #2) They also stated that they felt that this type of program was useful and something that could be helpful in the classroom as an aid to further discussion on the topic of transportation. The children most often stated that they would like to see this type of program in the classroom because they "wouldn't have to do so much work in class." This issue about the purpose and effectiveness of classroom television was one that would have to be addressed more specifically to both teachers and students in the evaluation procedures of the thesis research.[7]

Objective #3: The "5W's"

For the most part the students did not pick up the "5 W's" concept as well as was hoped. Since some students in each class did receive the "5 W's" message and were able to articulate this,

the failure was probably due to the lack of proper emphasis on this aspect of this program. These results led to the idea that in the future thesis production much more time would have to be taken during the show itself to explain the "5 W" approach. This would be done by means of devices that would keep the words and their usage in the child's focus throughout the program.[8]

Objective #4: Lack of Identification

Testing of this objective was handled very poorly. In the flurry of the production and evaluation procedures, measuring this objective was almost completely overlooked so it cannot be stated whether wishful identification with or recognition of the characters indeed took place. The _impression_ was that identification did not occur as no one character was mentioned in the discussion, nor did any particular character dominate the letters or drawings. As well, it is unclear whether any type of recognition took place for the students gave no indication of this having occurred. Still, the children were not asked directly to indicate their favourite character or if any of the characters were similar to people they might know, so the results remain _highly inconclusive at best_. This then was another point that would demand careful measurement in this thesis research.

Although the children did not appear to have a favourite character, they did prefer some parts of the program over others. Two sequences were mentioned especially: The first was a short scene where one of the characters is pulled off

his feet while holding one end of an imaginary rope in a game of tug-of-war. The second occurred when one character remarked during a mimed bus ride scene that she thought another character was "a nice looking fella" but proceeded to say, "he's scratching his head though, could indicate dandruff." The children's responses were often divided between, "I liked when the guy had dandruff" and "I liked when they pulled the rope." (see Appendices 1a and 1b for examples)

This preference for certain parts of the program that were fast-paced, almost slapstick action, and jokes to which the children can easily relate (in this case because the "dandruff joke" came from a very often aired television commercial) was similar to results found in the early "Sesame Street" research.[9] Clearly, these are helpful attention getting devices, but they do have some drawbacks. The problem <u>could</u> arise, as Noble (1975: 96) points out, that these devices are all the child audience will remember. In this program the children seemed to retain these humorous bits of information to the detriment of the "5W" subject matter.

Objective #5: Learning About Transportation in Windsor

This objective may have been realized, but since the testing of it was done so poorly, the researcher could not tell if it had been or not. One of the major drawbacks with this objective was that the researcher failed to ascertain how much the children already knew about transportation in Windsor prior to the presentation of the program. Therefore, afterwards it was not possible to know if they had acquired any new knowledge

on the subject. Also, although the children did have comments to make <u>about</u> transportation in general, when asked they could not tell the researcher in which city it was occurring. Indeed, few of the children mentioned the city of Windsor at all. This called into question whether the recognition concept played <u>any</u> role in holding the audience's interest in the show. Unfortunately, the children were not asked any questions which would have tested for recognition as the researcher thought that if it did take place that the children would offer supporting responses without being prompted. Such responses were not forthcoming.

Finally, because the results of this objective about greater learning about transportation were not tested for overtly, the answer would not be conclusive until a similar objective could be evaluated in the thesis project.

<u>Main Points of Program Evaluation by Grade Level</u>

<u>Grade One: Audiotape Discussion</u>

(1) They had not really picked up much of the conceptual information from the program.

(2) They accompanied their responses with a brief narrative explaining why they liked something that they saw in the show in terms of something they had been involved with and particularly enjoyed (e.g. "I liked the train because my dad brought me on one, one time when we went away", "I liked the taxi, they go down our street sometimes.").10

(3) These children reacted to the more active parts of the program, possibly because they understood these broader symbolic video representations better than they did the more literal audio symbols. As an example of this, very few of the children could tell this researcher anything about the "5 W's", but almost all of them enjoyed and could relate to the imaginary rope pulling sequence.11

Considering these results it appeared that there was a fundamental problem with the program itself and not with the students. Certainly the five "W" words did not appear to be new words to these childrens' vocabularies[12], but picking out their importance amid the aural and visual complexity of the program was perhaps too difficult a task for them developmentally. Clearly, for the thesis production, the message would have to be simplified without losing either impact or intent. One consideration, which was suggested by the teachers' responses, was the use of many clear examples in the show of how to use the "5 W's". There simply were not enough such examples in the prototype to make any lasting impression on the students. The challenge that that this presented was using <u>just enough</u> repetition in order to ensure that the concepts would be perceived by the six-year-old children, but not so much as to bore the eight-and-nine-year-old groups.

<u>Grade One: Drawings</u>

(1) The same feelings imparted by the students in person were also expressed in their drawings.

(2) These drawings seemed to point to a valid, though quite limited, methodology for assessing the reactions of children of this age group (One picture really only equals one response).

By having these children do the drawings, the reactions were "child-centred" and "child-specific", revealing only what the students were getting from the program without any prompting from an adult. Support has been found for a "child-centred" type of approach to testing a child's reactions to television content and this will be discussed

in the chapter on evaluation procedures.13 (see Chapter Six
for evaluation procedures.)

Grade Two: Audiotape Discussion

    (1)   These students generally had a much more sophisti-
          cated visual awareness than did the grade one
          students.

    (2)   They were less inhibited than their younger counter-
          parts, reacting verbally to something in the pro-
          gram they found to be entertaining.

    (3)   They seemed to be the most receptive to the material
          of the three grades tested.

The question that arose was whether these positive results
were due to some learning ability common to this age group, or
to the sophistication of this class in general. It was again
clear that a more precise methodology, with a larger test
sample, would be needed in the thesis research.

    (4)   They were less likely to add a personal narrative
          to each response.

    (5)   They were far more aware of how the "5 W's" were
          being used, but still not aware enough to indicate
          they would be able to use the approach on their
          own without adult prompting.

Again, this was seen as a glaring fault in the program
and not necessarily a lack on the students' part.

    (6)   They indicated that they would like to see more
          programs of this type in their classroom and gave
          various reasons for this desire. Two reasons were
          most common: (a) some wanted to view the show in
          the classroom so that they would not have to do so
          much work in class, while still others (b) pointed
          out that school would be a good place for these
          types of shows because they could learn more.

This researcher believes that responses of this nature
offer an extremely valuable indication as to what children
of this age level feel about instructional television in

general. It appeared from their responses that the children were polarized in their viewpoints. Some children saw TV in the classroom as nothing more than "play time" where no work (learning) will take place. Others saw it as a relevant aid to the learning process.

Grade Two: The Letters

(1) The largest percentage of the children indicated that they had enjoyed the rope pulling scene, the dandruff joke and felt it was a funny program (see Appendix 1b for selected examples).

(2) Their written responses gave very little indication that they had learned anything about the "5 W" question approach.

(3) The following is a list of the themes that these students suggested for future programs, in order of frequency of response:

   (i) Space
   (ii) Animals
   (iii) Sports (baseball, hockey, football)
   (iv) Human bodies
   (v) Transportation
   (vi) Countries or cities
   (vii) Miscellaneous items such as mummies and King Tut.[14]

Grade Three: Audiotape Discussion

(1) There was a noticeable difference in the overall sophistication of this age group compared to the other two.

(2) They clearly indicated that they had comprehended the educational materials far more than the grade one and two students.

(3) They appeared to know what the "5 W's" were in general and how they were to be used.[15]

(4) They were also able to understand and follow the notion that the program was related to Windsor, something the other two grades had difficulty in doing.

(5) These students appeared to be only moderately

entertained by the program, although there was little indication that any of them disliked it completely.[16]

(7)   These students could better handle abstract information than could the younger students.

Grade Three: The Letters

(1)   They enjoyed the show, especially the dandruff joke.

(2)   They felt that it was more like a show that was geared towards their understanding than what they were used to seeing on television.

(3)   They thought that the transportation content was a good idea also.

(4)   In general, they made little or no useful comments concerning future themes.

Abstract of Teacher Responses

Overall, one must say that the teachers' responses were positive. They felt that the subject matter was useful and would help in future discussions of transportation. Their strongest remarks concerned the way in which the "5 W" approach was presented. They felt that the "W's" would have to be reinforced much more, especially for the grade one and two students. They also mentioned that the pace of the program was a bit fast and would have to be slowed down. Their comments regarding future program themes were beneficial as well, although quite different than those of the students. They suggested things such as mathematics instruction and themes of a a more social nature, such as a visit to a hospital or information about traffic safety.

On the question of whether children can benefit from using television in the classroom, the teachers were somewhat

divided. The grade one and two teachers generally felt television could be beneficial to their students as long as the program was not too long and gimmicky, and contained sufficient learning material. On the other hand, the grade three teacher felt that television was not as good in the classroom as the children did no pay much attention to it and just thought of it as a play period. Again, this teacher may have been reacting to the way that the grade three students may be behaving while watching ITV programs because they are more sophisticated television viewers than those students of a younger age group. If these students do not see that an instructional television show is of high quality, they will not pay close attention and subsequently this disinterest may manifest itself in misbehaviour.

Conclusion

The work outlined in this chapter may appear, at first glance, to be overly long and perhaps even unnecessary, but this chapter is far more than mere information. It is extremely important that the reader get a clear conception of what is involved, even at the beginning stages, of thorough production research. This thesis would (could) not have been attempted if this first project had not yielded the necessary answers to form the foundation for the "new" "The Magic 5 Workshop". Much of what was tested in March of 1980 was repeated in the test period of May of 1982. Everything that has been stated in this chapter has had some bearing on the current analysis of and thinking about the potential of "The Magic 5 Workshop"

as a teaching aid.

Many of the things attempted did not work in this proto-
type program, but they were necessary failures and part of any
first step. Some of the content that did work, such as the
five objectives and the material on transportation in Windsor,
were included in the thesis program. As well, many improve-
ments have been made, most notably the addition of more repe-
tition, slower pacing, more examples of the "5 W" usage, and
the utilization of video instead of slides for the transporta-
tion sequences. Each of these changes has served to improve
the overall quality of the program.

Notes to Chapter 2

[1]The term "learning" as it is used here may be used synonymously with retention or recall. No _true_ learning could be measured after one brief viewing situation. This researcher believes that _learning_ takes place over a period of time with frequent exposure to selected stimuli that has strong reinforcement by the teacher. The term learning has been chosen for use here because the young people used the root of this word to frame their responses in the postview-ing question and answer session. (i.e. "We learned about cars and trains", "We learned about the five W's", etc.)

[2]At the time of the original work in COST 40-505, the approach now being taken in this thesis project was not out-lined as fully as it is now. The conceptual framework for the course was quite similar, but it was not stated in the manner in which it now appears. Professor Linton has, since 1980, refined the structure and thinking about the course to point where it exists today.

[3]Very little research was done in the area of children's cognitive development processes as they relate to television viewing at the time of this first study. Such research has been conducted for the thesis production and the expected homogeneity does not hold all that well. There is a definite difference between those children in grades one and two and those in grade three. Part of this can be attributed to grade differences but cognitive growth must also be a factor.

[4]Transportation is termed the main subject matter because everything that happens prior to the transportation sequences show the audience how to gain information about modes of travel in Windsor. The first half of the show should be seen as a presentation of techniques and the second half as how to utilize those techniques to learn about the main subject.

[5]This school was chosen because Professor Linton had con-tact with the principal of the school through the professor's two children who were students there. The children were students in two of the classes to be tested (grades one and three) which offered the unique opportunity of continued contact with some of the test subjects after the formal in-school testing was com-pleted.

[6]This type of evaluative procedure is not dealt with by the research literature in the child/TV behaviour area. Perhaps this is so because it is not that accurate and only elicits one response from each child. However, it is something that teachers have found to be extremely helpful in eliciting responses from the children when they are dealing with new

information (especially the drawing types of responses).
Since this researcher would be wanting a fairly large number
of responses, a compromise of this test approach was developed
for the thesis. The questions on the post viewing questionnaire
are pictorial in structure and the children were asked to choose
the correct picture. This proved to be highly successful.

[7]In this thesis post testing, the teachers were asked
directly what they thought the major benefits of classroom TV
were. The students in grades two and three in each school (the
grade one students were not included as they could not really
understand the questions) were asked three agree/disagree type
questions based on the responses given by the children in the
1980 testing. These questions attempted to measure the children's
opinions about the use of ITV in the classroom.

[8]The devices that were considered at that time and decided
upon for the thesis production were, repetition, graphics for
the Who, What, Where, When and Why words and T-shirts with the
words printed on the front for the actors to wear in the pro-
duction.

[9]Both Lesser (1974) and Ball and Bogatz (1970;1973) found
that children liked the kind of humour to which they could
easily relate to be included in television programs. Usually
this was of the kind that they might have seen on TV before or
something that they might have experienced first hand.

[10]Used in this way then, as a possible catalyst for dis-
cussion of their past experiences, it appeared that "The Magic
5 Workshop" could be very beneficial for the students. Also,
it might lead them to extrapolate further information on a sub-
ject so that they could base thoughts about future experiences
on past activities: e.g. "Now that we know some of the ways
that you have used transportation in Windsor before, how could
you get from one side of this city to the other?" or some simi-
lar question.

[11]These children could understand the sight gags and other
bits of humour and lively activity because the message was not
so bound to the audio portion of the program. Their visual
literacy skills have developed more rapidly than have their
verbal meaning skills, possibly because they watch more TV than
they read.

NOTE: The following definition of visual literacy is used
in this study:

> Visual literacy refers to a group of vision competencies
> a human being can develop by seeing and at the same time
> having and integrating other sensory experiences. The
> development of these competencies is fundamental to nor-
> mal human learning. When developed, they enable a visually

literate person to discriminate and interpret the
visible actions, objects, and symbols natural or
man-made, that he encounters in his environment.
Through the creative use of these competencies,
he is able to communicate and enjoy the masterworks
of visual communications. (Debes, 1969:27)

For a more complete discussion of visual literacy skills
development in young children see: Amy (1976) and Davis (1980).

[12]The results of the thesis pre-test showed that 81% of
all the students tested could recognize all five of these words
when asked to circle them on their test sheets. A further 10%
knew at least four of the five words. These results tend to
support the researcher's claim that these words are probably not
new to the vocabularies of children of this age group.

[13]Both Wolfe, Abelman, and Hexamer (1981) and Mielke and
Chen (1980) indicate it is important to get responses from the
children that are "child-centred" if one is to truly ascertain
how they feel about television. The testing approach taken in
this thesis has incorporated ideas suggested in both of these
pieces of research.

[14]These suggestions were somewhat reflective of topical
media content in March of 1980. For example, the movie "The
Empire Strikes Back" was very popular at area cinemas, the
King Tut exhibit was in Toronto and was being advertised in
both The Windsor Star and on the local CBC television station,
and Chryler was occupying a lot of media space with discussion
of its financial problems. These children may have been in-
fluenced in some of their choices for future themes by the
then current media emphases, but as this was not the thrust of
that 1980 study, this thought must be allowed to slip into the
realm of intriguing speculation.

[15]This was simply an observation based on scattered responses
from members of the class. In the absence of formal recorded
data, it can by no means be said for certain that they knew how
to use the "5 W's".

[16]Part of the low entertainment appeal of the show may be
attributable to the fact that children of this age group have
started to watch light adult entertainment programs (Feilitzen
and Linne, 1975) and might have felt that the subject matter
was "below" them.

CHAPTER 3

HISTORICAL EVALUATION RESEARCH

Putting "The Magic 5 Workshop" in Historical Perspective

ITV has been in use in the classroom in one form or another since the early 1950's (Hilliard and Field, 1976). Before that, the most common form of instructional medium was print. It proved that the mass media can teach and paved the way for much of the electronic technology that is in use in our classrooms today (Schramm, 1977).

There can be little doubt that television can and does teach efficiently, for this has been demonstrated in many experiments with a great variety of subjects, subject matter and methods (Schramm, 1962; Chu and Schramm, 1967; Ball and Bogatz, 1970, 1973; Lesser, 1972, 1974; Rovet, 1974; Callaci, 1975; O'Bryan, 1976, 1980).

The growth of educational television, both in-the-home programs as well as the type produced specifically for classroom use, has been of a rapid, almost incredible nature. This unchecked growth rate far out-stripped most attempts to formulate theories of learning or instruction related to the particular qualities of television (O'Bryan, 1976). As a result, the programs produced have often "tended to ignore the special properties of the medium and to treat it as an undynamic mode of instruction." (O'Bryan, 1976:1). These programs may teach something---the emphasis is very much concerned with the attainment of educational goals---but it is not often clear as to how these

37.

goals are achieved or _why_ they were not. It appears that for many years educational television was not produced with a thorough understanding of the relationship between entertainment and instruction. Clearly, the literature tends to indicate, especially in regards to children's educational programming, that an attempt to draw these two components into a working relationship started with the advent of such programs as "Sesame Street" and "The Electric Company". So successful has this marriage of entertainment and instruction been that the literature fairly overflows with tests done on the effectiveness of these two programs. It would seem that if one wishes to produce a successful children's ITV program one must consider carefully the primary importance of the entertainment/instruction relationship.

Entertainment is essential because that is what draws the child to the screen and keeps his/her attention focused on the picture, and thus the instruction. This entertainment can take any form from clowns to puppets to people and it can be high slapstick comedy or intense drama. What must always be remembered, however, is that the form of entertainment should complement the instruction so the child viewer does not remember only what was funny or exciting, but what they were expected to learn as well.

The instruction is important because, obviously, it is the whole point for producing an ITV program. The learning material must be presented in a clear, straightforward manner that is easy for the child to comprehend.

These two components must be held in fine balance so that

the importance of the one is not sacrificed because of an overconcentration on the other. This balance has been attempted in this thesis project and is fully outlined in Chapter Five.

School instruction is at once both a very complex and a dynamic process. These characteristics are determined by a number of objective and subjective factors.

> The objective factors include school organization, school equipment, timetables and the contents of textbooks, the socio-cultural environment in the broader sense, plus specific powers from outside school, such as the state, science and organizations. The subjective factors include the motives and role expectation of teachers, their own personal attitudes and didactic and methodological aims, their own personal self-conception, their manner of behaviour and also their professional qualifications. School instruction is also naturally determined by similar subjective factors on the part of the students.
> (Wilke and Eschenauer, 1981:4)

Each teacher or student is somehow affected by all or some of these objective and subjective factors which come together to form their perceptual field regarding instruction. The perceptual field with which the observer approaches the world of instructional television will determine whether he/she takes a pro or con stance.

> An advantage in the science teacher's eye, for example, may be a disadvantage to the musician. An advantage to one using a well-equipped studio may appear to be a disadvantage to a teacher whose studio is not well-equipped. An advantage to a teacher who adheres to one particular theory of learning may appear to be a disadvantage to a faculty member who adheres to another theory. Further, perceptions are always relative to something....Instructional television may look good or bad to the potential user depending upon what his previous experiences in teaching have been.
> (Crow, 1977:10)

Television, especially in the elementary classroom, can be most useful, according to this researcher, when used as a springboard or trigger device to help the children "get into" a broad subject. The world of the child is limited by physical, psychological and age constraints. Television can help them overcome some of these bounds, at least in the classroom, by providing the children with both a wider "window-on-the-world" and a significant other (teacher) who can interpret any ambiguities that may arise.

Television can offer the children a chance for at least vicarious contact with people, places and things they normally may not experience. Quick and Wolfe (1976) see classroom television as being extremely beneficial. They say that children can be involved in a type of "on site learning" without leaving the classroom. Also, and very practically, using television can mean the avoidance of the sometimes costly field trip. As well, with the use of portable video equipment, the experience of actual field trips can be extended indefinitely. Lessons can be experienced more than once, without variation, and the child can view portion by portion at his/her own pace.

This researcher has always considered instructional televison, at its best and worst, as nothing more than a teaching aid, to be utilized by the inventive instructor as a compensation for the physical limitations of both the teacher and the classroom. Yet, the television should not take over the whole teaching process, but rather should be seen as a medium of exposure to broader educational experiences. It is a poor

teacher who allows the technology to take his/her place

completely.

> Television is neutral; it is neither educational
> nor instructive; it is a means and not an end.
> It is simply an instrument that can be used to
> do certain kinds of educational jobs, and the
> quality and dimensions of these jobs are the pri-
> mary concern of educators who are interested in
> using TV. It cannot by itself perform educational
> functions, and it cannot be expected to do so.
> (Adams, Carpenter and Smith, 1958:14)

Nonetheless, the disadvantages to classroom television

are not so few and far between. Extended periods of its use

(as in some "telecourses", where entire courses are taught

through television lectures) would definitely create problems

in the primary elementary school classroom. Children need

face-to-face interaction and careful explanation when presented

with new concepts and TV just cannot supply this. They require

observation and immediate feedback when they are being presented

with new skills which they are to assimilate. ITV programs of

ten to twenty minutes in length (such as "The Magic 5 Workshop")

offer the teacher and the students an important new experience

while still allowing the teacher to interact with the children

and reinforce or clarify salient points. According to Storm

(1977), programs any longer than this ten to twenty minute time

frame may cause not only lack of attention, but also lack of

comprehension as well. As will be seen in a later portion of

this thesis, comprehension and attention are considered neces-

sary pre-conditions for learning from television.

As was stated earlier, print was the most popular medium

of instruction until the early 1950's when television was

introduced into the classroom. The print medium was excellent, as far as it went, affording mass society the opportunity to be educated uniformly in large numbers. But as Schramm (1977) points out, as the textbooks and reference books became accepted so unquestioningly by the educational systems, they were seldom the object of research and consequently they have rarely been improved. The same fate seems to have befallen much of instructional television and as a result some researchers have grave doubts about its effectiveness (Berkman, 1977; Gordon, 1977; Smith, 1979; Van Son, 1979).

Clearly, instructional programs have not always been the best, and at a time when television is so much a part of the fabric of our culture, ITV is in some trouble:

> Our conversations, aspirations, and activities
> are shaped by our television experiences but
> primarily by commercial television and educa-
> tional (public) television. Instructional tele-
> vision is not competitive because of its limited
> budgets and audiences. Its expected impact on
> American education has been largely negated by
> poor acceptance by the school community as a
> whole---the students, teachers, and administration.
> Students object to crude and unimaginative pro-
> grams produced with shoe-string budgets. Their
> experience with commercial television establishes
> their expectancy for interest level and production
> quality. Teachers object to synchronizing their
> schedules with TV, and often have a pedagogical
> disagreement with the content and methodology.
> Administrators often do not understand either the
> potential or the logistics of televised instruction,
> and fail to provide the appropriate level of sup-
> port. And so ITV, where it exists, tends to be
> inadequate. The most powerful medium in the history
> of civilization is, at best, underutilized in our
> schools. (Perrin, 1977:7-8)

If it was only the students that had to be convinced to use an instructional television program, the task of the

producer would be relatively simple, especially on the primary elementary school level. These young people do not demand impossible goals or lofty educational objectives; their main use of television is for entertainment purposes and that is what they expect to experience. If they should learn something, that is secondary and equally acceptable to them. Essentially they seen to enjoy a well-constructed, entertaining show and this is certainly a point that must not be set aside lightly by the producer.

The biggest impediment to ITV use in the classroom, however, still appears to be the educators. They are in many ways reluctant to use an extremely valuable teaching tool.[1] Teachers find many faults with the utilization of classroom television, often blaming the medium itself, regardless of the quality of individual programs. Yet, the problem goes beyond the faults of the programs that are available, for the finest program in the world cannot stand alone; if it is not utilized, it is as if it does not exist.

In defence of the teachers, they do give valid reasons for why they do not want to use TV along with their traditional teaching strategies. They say that the medium affects the control that they have in the classroom. Also, some elementary teachers build a certain structure into their workdays to add some measure of stability to an otherwise hectic day, and television is often seen as an intrusion that could change this structure (Bogdan, Dodge and Brogden, 1974). Further, Brubaker (1978) points to the teachers' reluctance to adopt for classroom

usage, technology that they feel is too complex. Nor will they be convinced by peer acceptance; the technology itself must appear manageable. From this researcher's own discussions with teachers, he has found that many teachers would put television in this "too complex" category.

The following chart profiles the argument against using ITV in the classroom and a rebuttal supporting its use.[2]

Looking at Both Sides of the Classroom ITV Use Question

Argument Against	Rebuttal
(1) Television is a time consuming and inconvenient medium for classroom instruction.	(1) More and more programs are available which are fifteen minutes or less in length (especially by groups such as TVO; "Readalong" and "Body-Works" are good examples of short programs) so that the question of time need not be a strong factor. Something does not have to be seen as time consuming if it can be shown to be an aid to quality time usage.
	Regarding convenience, Dr. Nancy Murray of The Windsor Separate School Board states that this problem can be overcome by the increased availability of video cassette programs and machines.[3] Also, TV Ontario publishes a booklet giving the exact date and time of each of their program broadcasts so that this inconvenience can also be overcome by proper scheduling and proper choice of support materials at the time of course design.

(2) Television has limited application in the classroom:

(a) TV has not demonstrated its potential.

(a) This really depends on the experiences of the individual teacher, but a number of researchers would dispute this point (Adams et al, 1958; Schramm, 1962; Ball and Bogatz, 1970; 1973; Lesser, 1974; Crow, 1977).

(b) It is not generally understood by teachers.

(b) Brubaker (1978) and Wilke and Eschenauer (1981) point to the fact that teachers are reluctant to use new technology. This attitude exists despite the many "how-to" journals that are available to help them understand the technology. (e.g. Media and Methods, Educational Technology, Audiovisual Communications Review) The opportunity to understand exists for teachers if they are willing to make the effort.

(c) It is a passive medium for instruction.

(c) Television certainly presents information within a passive framework for that is the nature of the medium. But the child audience must be seen as mentally active, constantly synthesizing and storing the incoming messages, and this compensates for the passivity of the medium (Friedlander, 1975; Katz, Blumler and Gurevitch, 1976; Winn, 1977).

(d) It needs more structure.

(d) This will only be accomplished by the continued improvement of production research practices (Mielke and Chen, 1980; Gillis and Nickerson, 1981)

(3) Television is a threat to personal contact with students.

(3) This only need be the case if the medium is presented by itself and for a long period of time. The teacher must play an active role as a facilitator

	and intermediary. As it is, children watch an inordinate amount of TV at home without adult supervision. Television in the classroom could serve as an opportunity to show how well an adult and child could relate while the television is on. A teacher who expresses an interest in and understanding of TV will win more confidence than will the teacher who berates a medium which is an extremely important part of the child's life.
(4) Television does not help to build basic skills.	(4) Again, so much of what this statement says is based upon the previous experiences of individual teachers. If they have used some of the poorer quality materials that are available they would no doubt hold this position. However, both the Children's Television Workshop ("Sesame Street" and "The Electric Company") and TV Ontario ("Readalong", "Math Patrol" and "Parlez-Moi") have amassed a large body of information to show that television can be used to teach basic skills.

Having considered both the positive and negative sides of the instructional television use controversy, it is now important to take a hard look at where this thesis project stands in relationship to these diverse viewpoints.

First, as has been stated in Chapter One, "The Magic 5 Workshop" has been designed in a fashion allowing for a unique structure for each show. This means that it can easily be adapted to coincide with the curriculum guidelines of an individual teacher or administration during the planning stages

without changing the effectiveness of the program design.[4]
This flexible structuring ability allows for the implementation
of various types of content, depending upon what an educator
may want to emphasize.

With regard to the aspect of time consumption (how much
class/teaching time must be devoted to its use), this program
does have a definite limitation as classroom television, but it
is a positive limitation. The program is flexible to the point
where it could operate well within any-time sequence from five
minutes (minimum) to twenty minutes (maximum)[5]. This is seen
as positive by this researcher because he has long felt that
an instructional television program does not have to be long
in duration in order to be long on value, as the research on
the original "Magic 5" show pointed out. These minimum and
maximum restrictions should be more than adequate to get an
idea across to the young child so that a teacher does not have
to feel that too much of the lesson plan has to be given over
to the use of a teaching aid.

"The Magic 5 Workshop" can be used to supplement a lesson
at the teacher's discretion; they are in control. It is con-
ceived as a program for cassette playback and not for broad-
cast TV so as to maximize scheduling flexibility. Classroom
control, or loss of it, should not be a difficulty if the
principals involved, the producer and the teacher, consider
their individual responsibilities:

    (1) The Producer: is responsible for producing a program
                       both highly stimulating and entertain-
                       ing while being educationally useful.
                       If the program is "fun", the child will

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impose a sort of "self control" in
order not to miss anything they per-
ceive to be entertainment.

(2) The Teacher: has the responsibility to become the
"creative leader", to use the tele-
vision experience for the greatest
benefit for his/her class. Naturally,
the children will be somewhat stimula-
ted by the introduction of television
into the classroom, but one feels that
the teacher who sees this stimulation
as <u>creative energy rather than disrup-
tive behaviour</u>, will enjoy a rich ex-
perience with his/her class.

"The Magic 5 Workshop" is conceived as more or less self-

contained, offering a simple cookbook/workbook approach to class-

room TV. The technology is simple: it involves merely placing

a cassette in a cassette player, turning on the TV and then

sitting back to work with the children's responses. This means,

of course, that the technology no longer has to cause anxious

moments for the teacher, leaving him/her free to concentrate

on the way in which the material will be integrated into the on-

going classroom experience.

The most important educational objective of this program

is that it elicits "child-centred" responses. In other words,

what the child comprehends about the program content and how

much of this he/she can articulate to the teacher is far more

important than any arbitrary objective that can be inserted

into the show by the producer. It is these "child-centred"

responses (i.e. the child's original concepts without adult

prompting), that will lead the young person to learn.

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Conclusion

Whatever happens to classroom television in the future, one thing appears certain: we would be doing ourselves and our young people a disservice by dismissing it as a teaching aid simply because some teachers perceive the negative aspects to outweigh the positive. Admittedly, there are limitations to ITV, but every medium has its faults; even the best of teachers can sometimes come up a little short. If educational systems faltered at every limitation, all real educational progress would stop. There is a better way to proceed and that is "to be cognizant of the limitations of the device or medium, and to use it wisely in light of those known facts." (Crow, 1977: 18) Often the criticisms that are levelled at the television medium as a whole are really the fault of the characteristics of particular ITV programs. If a program appears too cold and remote, monotonous and too many things are taking place both visually and aurally, then the blame must be directed at the producers and educators who created the instructional aid. Television is after all, only a means of communication. If you do not produce a good program you cannot produce good results.

> Or to paraphrase the lingo of the computer programmer: Junk goes in; junk comes out. Poor teaching goes in; poor teaching comes out. It is unrealistic to believe that the medium of television will on its own make a poor teacher more effective or that it could make an effective teacher less effective. It is wise to remember, however, that the proper use of television is not merely to transfer old pictures to a new medium. (Adams et al, 1958:178)

In this thesis, the attempt has been to put new pictures into an old medium.

Notes to Chapter 3

[1]In the thesis testing none of the eight teachers involved used instructional television on a regular basis. When asked why, the response was most often that they did not see where they could use it and that the programs available were of generally low quality.

[2]Information for the "against" position was taken from an article by Dr. L. George Van Son (1979) entitled, "Why the Best Teachers Don't Use ITV". Although Van Son's study was conducted using university and college instructors, the researcher believes, as a result of other inferences that have been made both in the research literature and in conversations with elementary school teachers, that it is reasonable to assume that these are opinions that are probably held by elementary school teachers as well. In point of fact, this information was used, along with other information from this chapter, to formulate an Agree/Disagree test instrument for the Post Viewing Questionnaire administered to the teachers in the thesis testing. The results appeared to indicate that the teachers did not find these questions (statements) unusual in any way.

[3]The conversations with Dr. Murray took place in July and September of 1981.

[4]The involvement of the school board in this case was limited to subject matter materials, but this researcher believes that they were interested in finding out how the program was received by the students and teachers. This interest could lead to further involvement in other "Magic 5" productions.

[5]The actual length of the thesis production is seventeen minutes and twenty-eight seconds. This particular show might have had stronger appeal if it had been closer to fifteen minutes in length. This was not the fault of the design, but rather the shots that the producer chose to use in the last two minutes. They were not very good and the children reacted with inattention and restless movement. This researcher still believes that the twenty minute maximum running time could work if care was taken in the last few moments of video. See Chapters Eight and Nine for a more complete discussion.

CHAPTER 4

AUDIENCE RESEARCH

A Review of the Child/Televison Relationship and Its Implications For the Present Study

It is clear that television dominates the world of the child outside of the classroom and it is during the brief moments of childhood that the child is most susceptible to its messages:

> Young people are exposed to the influence of the
> mass media during a phase in their development
> which is crucial for their cognitive and emotional
> maturity, and in which they only begin to form in
> full predispositions shown by communication research
> to be decisive for their reception of the mass media
> and their effect on them. (Wilke and Eschenauer, 1981:2)

The research points out that young children spend the largest part of their waking hours as consumers of television instead of any other activity(McLeod and O'Keefe, 1972; Noble, 1975; Rubin, 1977; Medrich, 1979; Winick and Winick, 1979). When they are at school they are taught to read books and are encouraged to do so by their teachers. But they also converse with their classmates about what new adventure shows they have just seen, or what their latest television hero is up to.[1] When they go home television becomes the centre of their after-school "I've got nothing to do" world (Rubin, 1977). Peggy Charren (1977:65), President of Action for Children's Television (ACT) summarizes the magnitude of this television consumption:

> Few of our young people can remember a time without
> television. The media has grown up along with them.
> Children today spend more time watching television
> than they spend in the classroom, or in any activity

except sleep. By the time the child reaches the age eighteen he has spent two full years of his life staring at a small screen.

The information base of our culture is expanding at an increasingly rapid pace. The fact that children can view more than four thousand hours of television in their pre-school years equips them with a technological sophistication which far exceeds any capacity our school systems might have to respond.

> Mass media keeps the learners instantly informed and often frustrated by articulating problems which seem strangely isolated from school programs. In addition, mass media make the problems of the world community evident to the young, who must reconcile the myopic behaviour of the culture with the needs of people everywhere if they are to free themselves to engage in more abstract learning activities. (Hug, 1975:11)

It is because of this overwhelming presence of the television in the lives of our children that instructional television is so important in the classroom. To refuse to use it by saying that classrooms are the one last refuge against the scourge of that medium is to deny the existence of the child's media environment (Wilke and Eschenauer, 1981). The teacher must keep pace with the technological sophistication of the students. To this end journals dedicated to helping teachers understand ITV, as well as other developments in educational technology, are published (e.g. Media and Methods, Audiovisual Communications Review, Educational Technology) and media specialists write books on how to "do" television in the classroom (e.g. Television and the Teacher by Robert L. Hilliard and Hyman H. Field, Video in the Classroom by Don Kaplan). The teachers must realize that television as a part of our culture is here to stay and

using it in the classroom will not add to its already impressive power, but rather it may help students to understand the medium that much better and add spice to the teacher's lectures.

Audience research in the area of children and television is both diverse and complex. In an attempt to establish a common ground for all readers, the remainder of this chapter shall be presented under subheadings which this researcher believes encompass the major facets of the child/television relationship.

First, the social and psychological parameters of a child's TV viewing behaviour are considered. Then a review of selected research from three major areas will be presented:[2]

(1) Television and the Cognitive Development Process

(2) Television and Learning, Including the Social Learning Effects

(3) Children's Comprehension of Television Content

It is hoped that in reviewing the literature in this manner that this researcher will be able to justify more completely the choices that have been made regarding this thesis/media production.

Understanding the Social and Psychological Parameters of Children's Television Viewing

When one considers the possibility of creating a television program, there are, quite obviously, a myriad of things to keep in mind: the purpose, goals and objectives, the style, the script, the actors, the crew and so on. Yet, these things can be very mechanical in nature, with success often · hinging upon how well you fit each part together, an efficient work schedule and a great deal of luck. What is much more difficult to control, however, are the social and psychological effects that an audience might experience as a result of that program.

It must be remembered that television indiscriminantly reaches anyone who cares to watch, with no guarantee whether the audience will be affected in either a positive or negative fashion. This can be said to be especially true for much of children's programming. The difficulty is that, frequently what a child is viewing is unique to him/her given their limited life experience. Yet, the programs are created by adults, to whom viewing can hardly be considered unique. As a result, programs are often based on adult assumptions about how children will relate to them. Adults have a rather myopic view of the childhood televiewing experience. They often seem to ignore the fact that, as research has shown, children just do not have the same life experiences as adults do, and though they may be watching the same program as an adult, the child does not classify the content in the same manner (Greenberg, 1974; Winick and Winick, 1979; Wolfe, Abelman and Hexamer, 1981).

Children are <u>active</u> when they are watching television, for "while children are watching television they are often making hypotheses, anticipating, generalizing, remembering and actively relating what they see to their own lives" (Winn, 1977:12). Children approach TV differently from adults who see events on TV as being commonplace, but because of the adult/child differences , the child cannot do this. Some of these differences are quite clearcut:

> The adult understands the relationship that words
> have to things, but the child continues to develop
> this ability throughout childhood. The adult has
> a large fund of remembrances that provide points of
> reference for this thinking, whereas the child draws
> on only a limited reservoir of remembrances. The

child's memory is thus not only relatively meagre
but also spotty. The adult, because of his ability
to think integratively, can understand relationships
that elude the child. Another difference between
adults and children is that children may be confused
by the violation of kinds of cause and effect with
which they are familiar. Thus, if an animal in a
cartoon hits another animal on the head with great
physical force but without visible effect, the child
viewer may be puzzled. A human talking to a horse
is easy to accept because it may happen, but live
horses talking to each other might be confusing be-
cause this situation would too closely contradict
the child's knowledge of the world. (Winick and Winick,
1979:13)

It appears that adults will continue to ignore these differences
when they produce for children and children will continue to be
confused.

Beyond these differences, children, younger children
especially, do not perceive television reality in the same way
as adults (Greenberg and Reeves, 1977; Hawkins, 1977; Morison,
McCarthy and Gardner, 1979) for they have not reached the adult's
advanced stage in their cognitive development. Adults must
realize that this concept of "real" is a relative term when dis-
cussing television with children; it is very much age-related.
Whether a child perceives television content as real (i.e. a
human character) or not real (i.e. an animated monster) depends
entirely on the stage of cognitive development they have reached
(Quarforth, 1979).

Still, none of these problems should be considered severe
if children "are fortunate enough to be born into good communi-
cating families" (Shipman, 1972:7), where the child might have
access to a competent adult or older child who might help to
resolve complicated or uncomfortable questions which a program

may have stimulated. Sadly, not all families are "good
communicating families". In many homes the child's confusion
about television reality as a result of ignorance concerning
the child's level of cognitive understanding is left unchecked.
These are often the homes where the television "booms out"
for much of the day becoming background for most of the family
activities, no matter what else people are trying to do (Tun-
stall, 1970; Medrich, 1979). The results of a child being
reared in this type of home environment "where the parent-child
interaction is limited and lacking in warmth and where other
interests and activities aren't modelled" (Fouts, 1978:4) is
quite clear:

    (a)   parents are less likely to control, regulate
           or monitor their children's viewing behaviour.

    (b)   there is a particular television attitude or
           ethic that does not question the "message"

    (c)   television dominates children's out of school
           lives. (Medrich, 1979:172)

These "less fortunate children who do not come from fami-
lies where issues are discussed, families where communication
is limited, where vocabulary is small and the written word is
almost superseded by television or radio" (Tunstall, 1970:352)
are the very children who when they are introduced to reading
at school have the most difficulty in developing this essen-
tial tool of communication.[3] These children will be highly
frustrated and may turn to television more often than others
for answers to social learning problems they are not getting
at home.

    The lack of close parent-child communication must not be

seen as the only reason for a child's heavy involvement with television. Certainly, one of the main reasons that children turn to television is that the material presented is intrinsically interesting and exciting, usually far moreso than life's everyday happenings. One of the most obvious aspects of a child's life is that he/she has had no part in determining the course of it. He/she can readily interact with those people who will interpret the world for them but he/she has played no part in deciding what roles to play it it.

> The child's world is given to him. He stops being a child only when adults have been satisfied that he has learned to behave in their habitual, predictable ways. (Shipman, 1972:28)

With the use of television, however, comes a certain "declaration of independence" for the child because it is the one thing he/she is able to do which does not demand parental attention. For the most part, media such as film, comic books, records and even books demand the provision of both money and time by adults. But, the fantasy life of excitement and adventure that television offers is a longed for freedom the child rarely experiences in reality.

> ....this fantasy provides a child with an experience which is free from real-life controls so that in attempting to find solutions to a problem, he can try out various modes of action without risking the injury of punishment which might ensue if he experimented overtly. (Maccoby, 1954:239)

Research has shown that this process of children regarding television as an intrinsically exciting medium begins at a very young age (McLeod and O'Keefe, 1972). One has only to observe firsthand (as this researcher has done) a child

of the age of three standing transfixed in front of the small screen to know how true this proposition really is!

Television and the Cognitive Development Process

Anybody who has observed a young child watch television over a period of time has realized that the way they respond changes as they grow older. Every way in which they use and are affected by television is in some way linked to their cognitive developmental process. Most of the cognitive development research in communications have based their theories on the work of the developmental psychologist Jean Piaget (Noble, 1975; Hawkins, 1977; Wackman and Wartella, 1977; Desmond,1978; Quarforth, 1979; Morison et al, 1979; Winick and Winick, 1979). Although all three of Piaget's developmental stages (pre-operational, concrete-operational and formal-operational) have influence on children's television viewing, only the first two are important for this current research since the children of the first three grades only get through the first two stages.

Many adults see children as just other "little adults", but Piaget (1950) demonstrated that children need at least twelve years before they can think like an adult. When they reach the age of twelve and enter the stage of formal operations, they can handle hypothetical thought and concepts of the future and other abstractions.

The Pre-operational Thought Stage (eighteen months to six/seven years):

Children in this stage are marked by egocentrism where they "respond to television in an all or nothing manner" (Noble, 1975:83). They are perceptually bound at this stage and cannot

conceive of a world outside of their own.

> In the pre-operational stage (2 to 7 years), the
> child is developing symbolic abilities (such as
> language and mental imagery), but his behaviour
> is still very closely linked to perception. Piaget
> characterizes the mental processes of this stage as
> a "mental experiment" in which the child's mental
> life is no more than a replication in mental imagery
> of various stimuli which often bear no logical re-
> lation to each other. (Wackman and Wartella, 1977:206)

Children in this stage are more likely to consider tele-

vision as a reality because they cannot imagine that people

can act dramatic roles (Noble, 1975). The child in this stage

does not differentiate between those things that he/she ex-

periences externally, such as television, and internal experi-

ences, such as dreams. As Noble (1975:84) states, because of

egocentrism, "as far as the young child is concerned he makes

the clouds move. All external events occur because of his

intervention." Noble (1975:94) summarizes the pre-operational

children's televiewing style as follows:

(1)   Young children see a series of separate and
      fragmentary incidents rather than the story
      of a television film.

(2)   The content of these incidents suggest that
      children will see either all good or all bad
      characters, and usually the good will proceed
      to kill the bad.

(3)   It is likely that the three and four year old
      child will not invariably recognise the identi-
      ties of the principal characters throughout the
      film. The perception of the film characters is
      dominated by the setting in which it is filmed.

(4)   Moreover, young children tend to believe implicit-
      ly what they see on television to be real.

(5)   Young children while viewing may read incidents
      into the plot from their own imaginations, or
      add incidents and events that they think should
      have occurred.

60.

(6) It seems likely that young children will use
     television programmes as the basis of social
     play---although such play is likely to be of
     a highly stereotyped nature.

(7) Children may acquire their future how-to-behave
     models from watching television. Young children
     are excellent mimics of what they see on the
     television screen.

Implications for Thesis Research:

It is extremely important that a producer of children's

ITV for use on the primary elementary school level remember

that a large part of the target audience is in the pre-opera-

tional stage of development.[4] This means that whatever is

produced will most likely be seen a being real, whether it is

or not. Therefore, the producer must be careful not to pre-

sent unreal (fantasy, make believe) characters and/or situa-

tions if the instructional subject matter is of a "real"

nature. If the "unreal" is used to present the "real" then

this researcher believes there would be a grave inconsistency

between what the children think they are learning and what they

are actually learning.

For example, "The Magic 5 Workshop" presented "real"

characters (actors as opposed to animated characters) and de-

picted them talking about "real" modes of transportation in

Windsor (actual examples of transportation that the children

may have seen or used before). In this way what the child

sees and learns is what he/she can experience in the "real

world" away from the television screen and therefore there is

a consistency between instructional intent and learning out-

come.

A producer must also be aware that children in this stage
tend to "fill-in" ideas they feel are missing from the plot
and because of this any story-line must remain simple. In
this thesis program the narrative was purposely kept as simple
as possible with very few unnecessary frills. It was believed
that this might result in some loss of attention because the
children are used to watching extremely elaborate productions
(e.g. "Sesame Street"). But this researcher also believed
that the production was polished enough to stand on its own
so as to compensate for the lack of elaboration.[5]

Concrete-operational Thought Stage (seven/eight to twelve years)[6]:

This is the time of the "cognitive revolution" for the
developing child. The child finds that he/she is no longer
in a unidimensional, but rather an expanded universe. Children
in this stage do not have to think only in terms of what is
immediately before them; they also have the ability to use
thought operations and think logically. Still, it must be
concrete thought:

> In the concrete-operational stage (7 to 12 years),
> the child has developed conceptual skills which
> enable him to effectively mediate perceptual activi-
> ty, but only when dealing with concrete objects.
> For example, the child can sort objects into subor-
> dinate and superordinate classes and answer questions
> about the inclusion of one class in another, but only
> if the objects are visually present. (Wackman and
> Wartella, 1977:206)

Children can follow a television show and follow the plot
line as well, as long as the show is right before them. They
would have difficulty in following the plot if it was simply

told to them in story form without visual reinforcement. The
concrete-operational stage still involves some egocentrism,
so that when watching television the child will be "so absorbed
in his new logical powers that he will concentrate on the inci-
dents rather than the major plot development in a film" (Noble,
1975:97). Thus they do not really see a _story_ in a TV show
until the latter part of this stage, probably around age ten.

The child in this stage does not engage in much role tak-
ing (i.e. the ability to imagine oneself in another person's
position, to see another point of view). Consequently, they
cannot truly understand the emotions or motives of characters
in a television show. Research has shown that role taking is
an important component in coming to a more full comprehension
of what is happening on television (Desmond, 1978; Reeves,
1979).

Implications for Thesis Research:

The structure of the "Magic 5" program appeared to be
geared more toward the concrete-operational children than the
first group. The program was logical, made up of a series of
"incidents" rather than a plot and there was no real need for
for role taking in order to understand what was happening.
It was believed that the "5 W" concept could work well with
these older children, especially if they decided they wanted
to show-off a bit and practice a little "conceptual dexterity"
by demonstrating how they could pick-up on the idea.[7]

One point that must be considered in research of this na-
ture is that some of the lower grade students (grade one) may

be nearing the concrete-operations stage. If this is so
in a given study, they could potentially affect the way the
class perceives a program as a whole if there are enough of
them.[8] It is not uncommon that some children will be at dif-
ferent stages of development even if they are in the same
class due to factors other than school.

> Some children will be ahead of or behind the mean
> developmental level on a given dimension, depending
> on a variety of factors. Such factors may involve
> the home situation, other media use, friendships,
> peers, previous experience, relationships with par-
> ents, affective development, social and institutional
> affiliations, life expectations, degree of use of
> television and the like. (Winick and Winick, 1979:77)

This idea had to be considered in the development of the
thesis program but it was not considered a major problem.
Again, the researcher believed the program design to be such
that children from both levels of development could gain
valuable information from it regardless of individual within-
group differences.

Children's Perceptions of Television Reality

It was stated earlier that the pre-operational child felt
that everything he/she saw on television was real and that the
concrete-operational child was more logical in his/her think-
ing. Studies on developmental aspects of children's percep-
tions of television reality have indicated that it can have a
strong effect on the child viewer (Hawkins, 1977; Morison et
al, 1979). The level of reality each child perceives may
affect the amount of social learning that might take place
while a child watches television.

> The ability to distinguish between reality and
> fantasy in television content has been hypothe-
> sized to act by increasing involvement with and
> relevance of television content. In either case,
> to the extent that we perceive television's con-
> tent to be a realistic portrayal of life, we may
> be more affected by and learn more from that con-
> tent. (Hawkins, 1977:301)

In theory, children's perceptions of the reality of tele-
vision may vary along a number of dimensions that are indepen-
dent of each other. Robert P. Hawkins speaks of this structural
dimension of children's perceptions of television reality. He
cites four dimensions, two of which are extremely important
to this study:

> (1) We can conceive of a continuum of reality
>   ranging from perceiving television content
>   as dramatic to seeing it as a "magic window"
>   through which one can look at ongoing life.
>
> (2) Children's responses to television reality
>   (context) may be located by whether the child
>   is responding to people on television, events
>   on television or the usefulness of people and
>   events on television for everyday life. (Hawkins,
>   1977:303)

Hawkins further points out that the "magic window" concept
of reality begins to fade in grade three and that both grade
one and grade three students tested found the material that
was presented on TV range from very useful to somewhat useful
in their lives.

In a study conducted by Quarforth (1979:211) an experi-
ment was undertaken to measure "childhood limitations in dis-
cerning the distinctions between reality and fantasy" with
regard to television characters in children's programs. The
study was based on the several stages of what Jean Piaget

termed "child animism".

> According to Piaget, during the first stage of
> animism the child of about six years or younger
> will endow any object with consciousness so long
> as the object is associated with some kind of
> activity. During the ensuing stages, the child
> learns to attribute consciousness only to those
> organisms that move of their own accord and that
> experience a finite life span. The child of about
> 11 to 12 who's in the final stage of animism attri-
> butes full consciousness to human beings only and
> understands the difference between organic and in-
> organic objects. (Quarforth, 1979:211)

Quarforth felt that if young children judged the con-

sciousness of an object by its association with motion, dis-

criminating between human, puppet and cartoon characters would

be difficult. She postulated that the child might think puppet

and cartoon characters were alive because they appear self-

propelled. She also felt that children might perceive cartoon

characters in this way especially because rarely do children

have animation explained to them, but many have played with

hand puppets. An overview of her results proves quite inter-

esting:

(1) Not until second grade were a majority of
children able to diferentiate human from
animated and puppet characters (in terms
of "aliveness").

(2) Not until the third and fourth grades did
most children come to realize that being
alive and having the ability to move auto-
nomously are characteristic only of human
characters and not animated or puppet charac-
ters.

(3) A substantial number of second, third, and
even fourth graders demonstrated an incom-
plete understanding of the functioning of
cartoon and puppet characters.

(4) The results of this study clearly indicate
that children's understanding of the nature
of television characters increases systematic-
ally across the early school years.

(5) Young children's difficulty in differentiating
human from other characters could have important
implications. Many adults assume that because
it is obvious to them that cartoon characters
are "make believe", the same fact must be obvi-
ous to children. This study has demonstrated,
that young do not discriminate clearly between
different television characters. (Quarforth,
1979:215-218)

Implications for Thesis Research:

The research by Hawkins (1977) proved to be an extremely

positive note for the "Magic 5" program because it indicated

that there was the potential that all of the children would

believe the materials preseted were real (and therefore impor-

tant) and that they might also find the program useful (and

thus endeavour to retain the information presented).[9]

The results offered by Quarforth (1979) were important

for this researcher's current work in that they reinforced the

decision to use live characters instead of animated or puppet

characters. After the COST 40-505 project there was a tendency

to want to use animation or puppets so as to ensure more con-

stant attention on the part of the children. However, intui-

tively and with the support of Quarforth's research, it was

decided that "The Magic 5 Workshop" would avoid the character

gimmicks so popular with other children's shows. Again, the

researcher wanted the structure and ideas presented in the

program to be the reasons why the children watched (or did not

watch for that matter). Also, it was important that the

audience recognize the characters in the program as like
people they might in real life and not like fantasy characters
they may have seen on TV previously. This point of recognition
could only be accomplished with the utilization of live actors.

Finally, with all the other complex and confusing stimuli
that children of this age group have to contend with when watch-
ing television, this researcher did not want to further add to
their troubles by forcing them to struggle to decide whether
or not the characters were "alive".[10]

Learning From Television

As has been stated previously, elementary school children
watch an inordinate amount of television and as with any be-
haviour that is conspicuous by sheer frequency of involvement,
researchers have always felt that television viewing must be
having a tremendous effect on the psychological wellbeing of
the child. This was especially true in the research that posi-
ted that aggressive behaviour is learned through viewing vio-
lent television programs (Bandura, Ross and Ross, 1961; Eron,
1963; Kuhn, Madsen and Becker, 1967; Atkin, Murray and Nayman,
1972; Kniveton and Stephenson, 1973; Winn, 1977; Gerbner, Gross,

Signorielli, Morgan and Jackson-Beek, 1979). As this research
is not conclusive, this researcher _feels_ it to be somewhat
alarmist; however, there are still many who agree with this
point of view. But the problem goes deeper than just this type
of effects research.

The problem is that television is television, an extremely
powerful and pervasive medium. It really cannot be blamed for

being this powerful for that is the nature of the medium.
Television is an experience and the central research question
with regard to what children might learn from televiewing
should not lie solely with the content but rather that they
are watching television instead of experiencing something
else.

There has been extensive research in the area of enter-
tainment television and what children might learn from it.
This has been conducted primarily from the point of view of
incidental learning and socialization (Siegel, 1969; Ward and
Wackman, 1973; Busby, 1975). Truly, there can be no question
that children learn from television and there is data that
suggests that even when television is not deliberately designed
to instruct, some learning takes place:

> The remarkable feats of learning may occur precisely
> because the televised message is not deliberately de-
> signed to teach and precisely because no adult is pre-
> siding over the learning of it....School attendence is
> compulsory; watching television is not. It is a good
> bet that this difference between compulsion and free
> choice matters. (Lesser, 1976:321-322)

Children can make their own decisions about the learning
situation with regards to television, especially when they
view for pleasure. There is no chance of criticism in the
face of the "wrong" answer. There is no adult to make the
child face up to the responsibilities of making proper, expected
responses. As Gerald Lesser of "Sesame Street" says, "Periodic
liberation from duty to the expectations of others may be just
what attracts children to television and frees them to learn

from it."11(Lesser, 1976;322)   The question then is not whether
children learn from television but rather, why and how do they
learn.

Children learn because, by their very nature, they are
extremely subjective. The following exhibits the important re-
lationship between television and subjectivity:

> The extent to which these tendencies (media content)
> affect a listener's attitude to broadcasting, and
> hence its impact on him, depends upon how far he is
> a subjective person. This can vary enormously. At
> one extreme are those highly subjective people who,
> we say "take everything personally". They do not
> distinguish between what is and what is not a part
> of themselves. (Tunstall, 1970:352)

This researcher believes that this is clearly the pattern
in which children develop. In their early stage of cognitive
development, everything they see on television can be taken
"personally" because of egocentrism. They have not developed
any distancing which is the characteristic of competent tele-
vision viewers who "have mastered a complex set of evaluative
procedures with which to make judgements about the reality of
TV programs." (Morison et al, 1979:453) This capacity, as we
have seen, comes about only toward the end of the concrete-
operational stage.

Implications for Thesis Research:

Simply stated, it was clear from the outset that the chil-
dren would learn something from the program. The task at hand
was to create a show that easily outlined just what it was the
researcher wanted the children to learn. As many of the children
would undoubtedly be highly subjective when viewing, it was im-
protant that the program be presented in as simple a way as

possible, without condescension. It was believed that any attempt to "talk down" to these children might be taken person- ally by some of them (especially those students who were in grade three, or in grade two but between eight and eight and a half years of age], and hence cause them to be close-minded to the content of the program. All notes of condescension have been scrupulously avoided during this program.

The Importance of Imitation to Learning From Television

There have been numerous studies of children's reactions in play situations which indicate that under certain circumstan- ces children watching another person will imitate the actions of that person in the same or a similar way (Mussen and Ruther- ford, 1961: Noble, 1970; Kniveton and Pike, 1972). Imitation by children in everyday life is extremely commonplace, as in for example, the young child imitating his/her parents brushing their teeth. Therefore, that children imitate is not the question to consider, but rather the more important question centres around what decides whether imitation will occur in specific instances (in this case, during television viewing).

Bandura (1965) identified parental models as being instru- mental in children's development and later elaborated his ob- servational learning model (Bandura, 1976). According to this model, "television viewers can learn behaviours depicted by television characters just as they learn behaviours depicted by real-life models" (Welch and Watt, 1982:133). When one couples these two above propositions and combines then with the idea of subjectivity, the concept of imitation becomes even

stronger where television characters are concerned.

For example, on television children will see models simi-lar to their parents and following their subjective instincts, they may well accept them as role models, especially if these are children who come from poorly communicating families. The opportunity for direct, distanced social imitation is also greatly increased by the magnitude of television availability.

> Indeed most youngsters probably have more exposure
> to prestigeful male models than their own fathers.
> With further advances in mass media and audiovisual
> technology, models presented pictorily, mainly
> through television, are likely to play an increasing-
> ly influential role in shaping personality patterns
> and in modifying attitudes and social norms. (Gelfand,
> 1969:189)

Children's social imitation of televised behaviour models is not limited to only the prestigious adult type, but rather, it is more widespread. The typical child in North America sees vast numbers of behaviour models on television daily. During the hours they are watching the most (figures differ, but probably between 4 P.M. and 10 P.M. daily), no less than one hundred and fifty programs are being broadcast (Reeves and Miller, 1978:71).[12]

However, it should be pointed out that children "do not indiscriminantly imitate all available characters" (Reeves and Miller, 1978:71). Children focus on specific characters to model. They look at television characters who vary widely along important dimensions, such as behaviour, personality, appearance, speech mannerisms, race and occupation. They recognize those many dimensions and will model some characters

moreso than others. Kniveton (1976;237, 243, 244) lists some of the reasons and conditions for children's modelling of televised characters:

(1) When an individual imitates the behaviour of another, the first individual will only change his own behaviour to accord with the second individual's if he feels that the change is worthwhile. This is only likely to occur if for some reason the actions of the person be- ing observed are more attractive to the viewer than those he can think of himself.

(2) When the model is rewarded for his actions, the child observers imitate more than when the model is punished. It is the punishment which has a suppressive effect on the observer's behaviour and is, therefore a more influential feature than the reward. Children who observe behaviour that is followed by no particular obvious conse- quences engage in the same behaviour almost as much as do those who have observed the rewarded consequences of the behaviour.

(3) A highly competent model in the viewers' eyes is likely to result in children displaying a higher degree of imitation than a less competent model.

(4) Other variables related to high competence such as age, sex, ethnic status, adults, celebrities, and socio-economic success, which are generally associated with predictible reinforcing outcomes, also influence the degree to which social atti- tudes and behaviour will be reproduced by others.

(5) Children will imitate behaviour of individuals with whom they feel an affection moreso than those with whom they do not.

Implications for Thesis Research:

Imitation was not considered of primary importance in this thesis production because of the program design. First, there are no prestigious, adult characters and secondly, no one character is singled out for any kind of reward or punishment. The characters display a certain competence and are generally warm and likeable, so the children may have felt some affection

towards them.[13] However, any imitation (although it was not

going to be measured directly) that would occur was expected

to be minimal.[14]

Even though imitation was not expected to be important

in the thesis research, as was stated in Chapter One, this

program has been designed as the first in a series, and imi-

tation because it is extremely important to learning prosocial

attitudes and behaviour, would definitely have to be considered

if summative research was conducted on "The Magic 5 Workshop".

Identification, Para-Social Interaction and Recognition; How They Effect The Child Viewer

Research on identification with television characters

evolved from research on how individuals identify with stars

of the cinema (Schramm, 1961). It was at first assumed that

there was little difference between seeing a film character

at a movie theatre and seeing a character on television----the

same "identity loss" would take place. Both Noble (1975) and

Tudor (1974) disagree with this. As Noble (1975:37) states:

> In order to become involved with the film, the
> viewer must adopt the stance of one of the actors
> and hence his screen experiences, while viewing.
> Cineviewers leave the cinema in somewhat of a
> daze as they re-adjust to their environmental re-
> ality. Television, on the other hand, is viewed
> in the home, with the light on and often in fami-
> liar company----a situation likely to remind the
> viewer of his own identity unless the light is
> switched off, which Himmelweit et al noted enhanced
> emotional impact.

In their study on children's television perceptions,

Winick and Winick (1979:38) formulated a complex methodology,

and their operationalization for the term identification seems

to offer an explicit definition:

Identification: during a program or describing it, behaviour or comments expressing the assumption of qualities or aspects of people, roles, characters, or activities presented; putting oneself in the place of a person shown on television and feeling that what happens to the person is happening to oneself. In citing, responding to, or recalling a program, expression of, participation in, empathy with, and/or admiration for the events or people being portrayed.

Even though the "suspension of disbelief" is different for television than for cinema, some children are able to identify just as highly with television characters as they are with film characters. The degree of identification depends on the level of cognitive development: younger, pre-operational children will identify less than will the older, more aware, concrete-operational children. Cecilia Feilitzen and Olga Linne (1975:51-53) note many interesting findings in the area of children's identification with televison characters, some of which point to age-related reasons.

(1)   Identification with the content of mass media does not play as decisive a role in the socialization process as parents and other nearby or more intimately related persons.

(2)   Children whose relations to parents and playmates are less harmonious tend to seek models in the world of mass media to a greater extent than others.

(3)   The proportion of children who identify with persons and events portrayed on television is greater among children who view much television than among those who view little television.

(4)   One of the main conclusions to be drawn from Scandinavian research is that children identify most often with children (Similarity Identification).

(5)   Wishful Identification is based on the child's desire to be (or be like) the "hero" or "heroine" of a program and can be prompted by quite different factors.

(6) Identification tendencies seem to change around age eight. Until then, children's programming is preferred; adult shows are watched by younger children but this reflects the family's tastes and habits rather than the child's. Results indicate that children begin to take interest in light adult programming around age eight.

(7) While younger children favour similarity identification almost exclusively, older children experience wishful identification as well.

One final point must be raised. Although the Winick and Winick (1979) study found evidence of possible "crossing over" of gender identification, in general the research tends to support the fact that boys will most often identify with boys/males, while girls will identify with either sex (as reported in Noble, 1975). Also, women (adult "mother" types) are attractive to both groups (Winick and Winick, 1979).

Although research on identification received the most press, several researchers believe that there is another very important phenomenon that sometimes takes place when children watch television---the para-social interaction (PSI)(Horton and Wohl, 1956; Glick and Levy, 1962; Noble, 1975; Rosengren, Windahl, Hakansson, and Johnsson-Smaragdi, 1976; Winick and Winick, 1979). This "simulacrum of conversational give and take" (Rosengren et al, 1976:347) occurs between certain mass media characters (which Horton and Wohl (1956) labelled "personas") and the audience. Glick and Levy (1962:169) offer this definition:

> The "para-social relationship" is a vicarious and unreciprocated state of pseudo-communication which television viewers typically generate and maintain between themselves and the "personalities" of the video medium.

With the PSI there comes an illusion of intimacy where the audience member feels that the persona is talking directly to

them at all times.

> The circumstances of response to a performer on the
> screen may be analogous to those in a primary group,
> and a television character can be met as if he or she
> were in a circle of peers. The television persona,
> from Captain Kangaroo in the morning to Johnny Carson
> in the evening, offers a continuing relationship, a
> regular and dependable event. (Winick and Winick,
> 1979:25)

These "persona" characters appear mostly in tight medium to

medium close-up shots and are usually not involved in a lot

of on-screen activity.[15]

The para-social interaction may be important when actual

interaction is insufficient or unavailable. Although research

is still forthcoming, those children who are either sick, lonely,

timid, rejected or in some way isolated, might find that this

type of interaction is all that is available. If asked why

they watch TV these children might answer, "I watch TV because

it is like a friend."

Finally, Noble (1975) puts forth the concept of recognition.

He holds the proposition that due to the cognitive developmental

process younger children are not able to identify. This is of

course related to egocentrism which makes it difficult for them

to perceive their world from any other point of view but their

own, especially in the pre-operational stage. Instead of identi-

fying with characters, children interact with them because they

recognize them as being similar to people they already know.[16]

This position will last until about the age of nine, well into

the concrete-operational stage.

Before the child can identify, asserts Noble, the child

must first be able to discern between good and bad characters.
He describes the process:

> ....viewers can recognize whether a character is
> good or bad, foolish or clever by comparing that
> character with people known to them, or with other
> film or book characters with whom they are familiar.
> If a television hero is enacting a part which is
> familiar to the viewer, for example, father, mother
> or child, which is in turn similar to the way the
> viewer's father, mother or brother behaves, the
> viewer may become involved in that presentation.
> (Noble, 1975:47)

Noble further states that recognition requires no identity
loss, but leads to a strong sense in the audience member that
the actors in the program they are watching would behave the
same in real life as they do on the program. This is so be-
cause viewers who recognize television characters, play opposite
them and become involved in the program as themselves. Noble
explains that the viewer can think that the actors are real
because "if the viewer responds to the recognized character by
wanting, for example, to help him, that viewer---however tempo-
rarily---is deluded into believing the programme is real rather
than a dramatic presentation" (Noble, 1975:51).

Usually, children who recognize characters as "like people
they know in real life" react more self-consciously to the charac-
ters on TV shows. They find it hard to take the role of the
"hero" or "villain" as they usually play opposite them maintain-
ing that the characters talked just to them during the actions
of the show.[17] Also, because they recognize the characters, they
feel they know them and they often can correctly predict what
might be the outcome of a program because they feel they know

what ·the charcter in real life would do in a similar situation.

He also indicated that recognition is more long lasting developmentally and that most normal children eventually out-grow identification.

Implications for Thesis Research:

Even though identification is seen by some researchers as possibly the single most important factor for learning from television (Baran,   1974), it was not considered to be a primary variable in this present study. Certainly there would probably be some identification with the characters on the part of the children, but it was believed that this would be minimal for a variety of reasons. These reasons, to be dis-cussed below, led this researcher to consider identification as a secondary variable only after a very real practicality had been recognized: with an audience as broad in both cogni-tive abilities and taste as this target audience was to be, it would be fairly impossible to create characters that would be easily identifiable by all. To change the target audience to suit the characters would have been to defeat this researcher's whole point, which was that he believed he could successfully design an instructional television program that could be experi-enced by a very wide cross-section of young people.

There were three reasons why it was felt identification would not be important in this research. First, the children would only be seeing the program once for a brief period, and this hardly seemed enough time for them to form any great

attachment to any one character. [18] Secondly, the program
design decided upon called for a cast of five high school
students,[19] two males and three females, so that there would
be only limited opportunity for identification as there would
be no children of audience "peer age" in the cast. Third,
the program did not contain a "hero" or "heroine" so wishful
identification would seem to be controlled.

The question to be answered then was, if identification
could clearly not be considered a primary learning variable,
which of the other two previously discussed, para-social inter-
action or recognition, would be considered the most important
variable?

Let us first consider the position of the para-social
interaction in relation to "The Magic 5 Workshop". The script
did call for some close-ups so that there was the possibility
of some PSI taking place. However, this researcher believed
that this type of interaction would be quite minimal. The
reason for this was that there were no "persona-like" charac-
ters in the program and that any full screen close-ups were
being used as cues for the audience to direct them to the next
learning sequence to follow and not for the purpose of high-
lighting the personality of the individual character.

It seemed abundantly clear that, overall, recognition
would be the strongest variable at work. The cast was selected
from among high school students so that children might recognize
the characters as like their older brother or sister. Also,
the central subject matter dealing with Windsor offered an

excellent opportunity for more recognition on the students'
part.

In the final analysis, then, it was hoped that recognition
would become as powerful a learning variable as identification
and that identification would be controlled for in this program
to the point where it might not exist at all. This was taking
a chance since almost all (if not all) previous children's
instructional programs which this researcher previewed and/or
conducted research about had some character(s) with whom the
audience could identify. Still, there was firm belief that the
program design of "The Magic 5 Workshop" was such that it did
not need strongly identifiable characters to be successful.

This was more than simple artistic arrogance. It is the
contention of this research (supported by [Noble, 1975]) that
too much identification can result in only the character and
his/her actions being remembered and not the instruction itself.
Recognition, on the other hand, because it is based on "real
life" remembering and relating may be reinforced daily. In
this instance, if the children recognized the "Magic 5" charac-
ters as being like a teenage person they knew in or around
their home, everytime they saw this teenager they could con-
ceivably be reminded of the program. Also, they would obviously
be seeing many examples of transportation in Windsor everyday,
so the possibility of continuous reinforcement was even higher
from this perspective.

Clearly, from all points considered there was no reason to
compromise the design of "The Magic 5 Workshop" and the

decision to make recognition the primary learning variable seemed strongly supported.

Children's Comprehension of Television Content

As has been previously noted, the pervasiveness of television in the lives of young children is not a point which needs to be argued. Equally, there is little disagreement with the assumption that children learn from television. To this point, the overriding concern of researchers has been with "whether and in what ways children are affected by what television brings to them" (Collins, 1979:21). However, one area which has not received strong consideration, but which is equally important, is children's comprehension of television content.

Comprehension is vitally important to the entire process of knowledge acquisition. Bloom (1956) believes that without comprehension, knowledge in the form of recall could exist, but more refined knowledge, in the form of understanding and application, would not. Also, Freidlander (1975) has suggested that part of the reason children fail to learn cognitive information from television is that they often are unable to comprehend a particular message.

Clearly, television is very dependent upon comprehension for its effectiveness and influence. If the child does not understand what he/she is watching on the screen, that program will have little effect on him/her. For as often as researchers have asked the question, "What is learned?", they may have been missing the equally important prior question, "What is comprehended?".

Storm (1977) suggests that the answer to the latter
question may lie with the individual viewer. She cites research
that suggests that at any point in time people function within
a communication mosaic. This mosaic is unique for each indi-
vidual and "is composed of all the bits and pieces of informa-
tion from various sources to which the individual is privy"
(Storm, 1977:7). This mosaic will change with the individual's
development, exposure patterns, attention levels and world view.
What this means in relation to comprehension and television is
that two people who are seemingly exposed to the same bit of
information (same program) are probably perceiving entirely
different information due to other variables such as competing
information sources and context of the message. This is impor-
tant because the context of television viewing is the total
environment in which it is watched. This means that everyone
and everything the child viewer relates to while watching
television can have an effect on the impact of the bits of in-
formation to which the child is exposed and hence, his/her
comprehension of it. Therefore, as Storm (1977:8) states,
"neither the importance of the developing individual, nor the
importance of the overall context of exposure can be overlooked"
when discussing children's comprehension of television content.

The question of cognitive development (age) in relation
to the comprehension of television content is reinforced by
research done by Collins (1979). He found that young children
(seven to eight years old) had difficulty in understanding the

many complex events in typical television comedies and dra-
mas that, although designed for adults, draw a large child
audience (e.g. "All In The Family", "The Jeffersons", "Good
Times"). Collins states that young children have not reached
the age at which they have developed mature comprehension.
This type of understanding usually involves at least three
tasks:

> First, the viewer selects essential pieces of information
> from the presentation, ignoring or paying less attention
> to extraneous detail. Second, these essential scenes or
> actions are ordered according to some scheme. Third, the
> viewer makes certain inferences that go beyond what has
> been explicitly presented in the stimulus (Collins,1979:
> 23) (Emphasis added).

Both Storm (1977) and Collins (1979) conducted tests to
measure children's comprehension of television content, invol-
ving at least some children of the age levels pertinent to
this thesis research: Storm studied children in kindergarten to
grade two, and Collins, grades two, five and eight. Since
they choose to approach this question from different methodo-
logical and theoretical positions, their results differ to
some extent. However, the main results they discussed are
extremely important for the present study.

Storm: Main Conclusions

(1) Children understand most of what they see and hear
on television.

(2) Children don't understand what they say (and appear)
to like more than what they appear to dislike.

(3) Children cognitively understand fairly sophisticated
information.

(4) Television research must concentrate on comprehension

in conjunction with other variables to explain and
identify television's effects. (Storm, 1977;20)

Collins: Main Conclusions

(1) Children as old as second and third graders have
repeatedly been found to know significantly less
of the information in portrayals that have been
characterized as central to comprehension of the
plot.

(2) Younger viewers' influences about the meaningful
interrelationships among the central events is
typically poor.

(3) Young grade-school children are much less likely
to "go beyond the information given" when viewing
audiovisually presented narratives. This means
that the children will not be able to perceive or
infer anything that is not explicitly stated in
the program. This is a tendency that becomes more
marked as the difficulty and unfamiliarity of the
information to be comprehended increases.

(4) Younger viewers may be more likely to understand
the central actions portrayed in televised social
portrayals when there is some degree of famili-
arity with the general settings and types of cha-
racters being portrayed.

(5) Comprehension of television content appears to
involve skills that are strongly age-related
As well, one sees pronounced effects on comprehen-
sion due to the nature and difficulty of the tasks
required by different programs. (Collins,1979:45-46)

Implications for Thesis Research:

The importance of comprehension to the design and con-

struction of "The Magic 5 Workshop" cannot be minimized. It

is a necessary prerequisite for learning from the program for

without understanding there could be no application. Since

the program was designed to offer the children some tools that

they could use to further their knowledge acquisition, if

they could not understand it, it would be worthless to them,

85.

"The Magic 5 Workshop" was not designed as simply an enter-
tainment vehicle; everything in the program had a purpose
and the children needed to be able to comprehend the impor-
tance and inter-relationship of each part.

The results offered by both Storm and Collins were taken
into consideration in the program design. Information was
kept explicit so that the children would not have to make
any inferences with regard to characters or action. It was
believed that the children would understand most of what was
going on because there was a balance between the audio and
visual tracks with regard to instructional materials. In
other words, whatever was discussed verbally by the actors
was also demonstrated; in the case of anything of importance,
it was not assumed that the children could interpret implied
messages.

Finally, the use of Windsor-related content was believed
to be the best choice because, as Collins suggests, such ma-
terial would be familiar to the children and aid in their
comprehension.

This researcher accepted from the outset that this pro-
gram had to be comprehended by the students if it was to be
even remotely successful. If it was understood, there was
the chance that the "5W" approach could be applied. This was
not a guarantee that it would be applied, but the potential
would be there. In the long run, comprehension was seen as
the essential pre-requisite for learning.

Conclusion

As was stated at the outset, this chapter had two purposes: (1) to establish a common ground for the reader in relation to children and television and (2) to clearly state the reasons for the program choices that were incorporated into the body of "The Magic 5 Workshop". It is believed that these two points have been well outlined.

This chapter was not to be a theoretical framework filled with hypotheses. Instead, it was written as a map to show the many steps this researcher has taken from the COST40-505 research literature to this particular study. The chapter that is to follow takes the information that has been presented in this chapter as "given" and proceeds to "flesh out" the entire "Magic 5" design on the basis of this research and other research from the areas of visual complexity and attention. Therefore, although some of the points raised in this present chapter are repeated in Chapter Five within the body of the Annotated Script, much new information is presented as well.

In formative research, the entire program is tested so that many hypotheses (which tend to look only at fragments of a program) are not truly necessary. They do not appear in this chapter, as might be expected, simply because the research presented was a basis for thought, creativity and understanding. Nonetheless, the "Implications for Thesis Research" section after each piece of research presented may be considered as being similar to hypothetical statements. On the basis of these "Implications" sections, the reader should have noted

that several variables are extremely important for this study.
Test instruments were developed that explicitly tested for
identification, recognition and comprehension.

Also, in Chapter Five the objectives of this thesis pro-
duction are offered as the basis of testing this program in-
stead of direct hypotheses. In addition, in Chapter Six, along
with a description of the test methodology, limited hypotheses
are discussed in the outline of the comparison testing conducted
at the three test sites.

Notes to Chapter 4

[1]This information is both anecdotal and observational in nature. The many teachers this researcher has interviewed in the last year, both formally and informally, have told stories about various children talking about their favourite TV person- alities. (e.g. The Hulk, Bo and Luke Duke of "The Dukes of Hazzard", Ralph of "The Greatest American Hero", and certain sports celebrities made more famous by TV such as Wayne Gretzky).

[2]At first two other areas, visual complexity and attention were to be presented in this chapter as well. However, it was quickly realized that it would be more appropriate to discuss these areas in the introduction to the Annotated Script in Chapter Five.

[3]The results of research conducted by Medrich (1979) show that children from constant television households are more like- ly to be reading well below grade level than children from non- constant TV households.

[4]In this present study, 99 of the children in the sample were either in the pre-operational stage or very close to it (46 were six years old and 53 were seven years old). This constituted 52.7% of the total sample. (see Endnote #6 for an explanation of the end of the pre-operational stage and the be- ginning of the concrete-operational stage).

[5]Part of this reason was simply that the Media Centre at the University of Windsor allowed for only a minimal amount of elaboration. The production that was prepared for this thesis had most of what a child might want to see in an ITV show. However, there was not any way to compare a zero direct dollar budget to the millions spent on "Sesame Street".

[6]Researchers differ as to where the pre-operational thought stage ends and the concrete-operational thought stage begins. Seven/eight is used here to designate the concrete-operational child. This means that the researcher considers the closest compromise is somewhere toward the end of the seventh year. This also means that those children in grade one who are seven years old and most of those in grade two can realistically be considered to be either in the pre-operational stage or near the completion of it.

[7]This kind of behaviour was especially apparent on the grade two level. The children were constantly wanting to shout out the answers to the post-test questions, their faces beaming, ready to demonstate what they had learned from the program or presentation. There was little difference noted between the children at the different sites. Each grade two class exhibited a great desire to demonstrate their cognitive ability. These results were similar to those found at Prince

of Wales School in the COST40-505 study.

[8]This really did not prove to be a strong factor with regard to the testing that was done in this thesis. The researcher was conscious that the brighter children might try to help the other children by indicating to, or telling them the answers both on the pre-test and the post-test. Any time this behaviour began, the researcher and his assistants directed these brighter students to please look at their own papers. It was obvious, however, that had this been a less formal test structure, that the brighter, more cognitively developed students would have dominated and influenced many of the other children.

[9]The indications from the nine children interviewed at Sacred Heart School (the students who saw the thesis program) were that they did indeed find the information presented in the show as something that was important and useful. (see Chapter Seven for results of Post-Test Interview)

[10]Perhaps this may be construed as an over-reaction on the part of the researcher and maybe the children are not bothered by this question at all. Still, the rationale here was that if it was known that a certain production choice could potentially cause confusion in the minds of the audience, then why include that production choice in a given program. This researcher believed that it was more prudent to take a risk of the children not liking the show than to perpetuate a problem.

[11]It was hoped that since the researcher was presenting the program in as informal manner as possible, that the students would not associate any expectations with the viewing. It was hoped that the many reassurances given by the researcher and his assistants prior to the viewing, plus the relative non-involvement of the teachers, would help the children to relax and just enjoy the show.

[12]These numbers must be substantially higher with the advent of cable and Pay-TV.

[13]The majority of the children liked characters in each of the two programs tested. This was indicated by the picture choices the students made during the post-test. Also, almost all of the children interviewed at each of the video sites, liked at least one character and could state the reason why. These reasons usually indicated some type of competence and/or niceness on the part of the charcter (e.g. "They were nice", or "They did a lot", or "They were in charge".).

[14]There was no direct imitation observed during or after the program. but the children were not asked in any way to demonstrate this. However, when the researcher took the opportunity to play "What's In the Box" (an imagination game from the thesis program) with the grade two students at Sacred Heart School,

and all the students at St. Jude School, the students immediately imitated the game as they had seen it played on the program without any prompting

[15]These are the Johnny Carson, Walter Cronkite or Mister Rogers types, the "talking heads" that speak directly into the camera. The viewer gets the illusion of being in a conversation and these characters try to convey a sense of concern and sincerity.

[16]Unlike recognition, most research on identification with television characters mentions characters that are extremely broad (Batman, Superman, Wonder Woman, The Fonz). The children can see these characters as the "hero" or "heroine" and not as being similar to people they know in real life.

[17]This is not to be confused with the PSI situation. THese characters are extremely active and not of the "talking head" variety associated with para-social interaction.

[18]Again, the research on identification seems to have concentrated on characters from programs that the children might have seen more than once ("Sesame Street", "The Electric Company").

[19]The research results indicated that identification did take place and that recognition was not as strong a factor as hoped. (see Chapter Seven for results). Therefore, it is conceivable that any future "Magic 5" programs could have an entirely different type of cast.

CHAPTER 5

PART I

MEDIATION RESEARCH

The Structure of "The Magic 5 Workshop"

The preceding chapters have helped to lay the foundation for this most important chapter. In Chapter Five everything comes together to provide both a script to be produced and a rationale for the script choices. The script that is presented here is what was produced and tested with the children.

In this chapter, the objectives of "The Magic 5 Workshop" are outlined and briefly discussed. These six objectives are extremely important as they formed the test questions for the program. The complete structure of the program is described and each part is explained as to its purpose and importance. A theoretical discussion of what makes this program a useful teaching device is presented. Also, the complete annotated script is supplied with footnotes detailing any changes that had to be made to it in the studio due to production constraints.[1]

Objectives of "The Magic 5 Workshop"

The objectives of this program did not change radically from the COST 40-505 project. Those five previous objectives appeared to clearly indicate the kind of learning that could be expected to result from a child's viewing of such a program. The objectives then were as follows:

(1) The program was to be entertaining.

By this was meant that the children would show

91.

92.

interest in the program and attend to the learning materials presented in both the audio and video tracks (Mitchell, 1979). During the program the children would exhibit some overt behaviour (e.g. smiling, laughing, pointing at the screen) which would indicate some enjoyment. Also, appeal questions would be asked on the post-viewing questionnaire regarding both the program and the characters.

(2) **The program was to be educational.**

Here the researcher meant that the children would be presented with a novel learning experience which they would be able to comprehend. In this way the children would have the potential to apply this newly learned material in other areas of their schoolwork and everyday lives (Storm, 1977). This was to be measured by means of a post-test utilizing both comprehension and recall questions.

(3) **The children would learn to use the "5W" question-asking approach.**

This was the most original concept and the raison d'être of the entire program. Learning to use the "5 W's" was seen as an excellent discovery tool that the children would be able to utilize for educational benefit. This was to be measured using comprehension questions which would clearly ascertain if the students had understood how to use the words after they had seen the program. Since the children were not going to actually demonstrate the use of the "5 W's", these comprehension questions will again indicate what potential use the children could make of them if they decided to do so.[2]

(4) **The children would not identify with any one character.**

Here the researcher wished to see if identification could purposely be controlled. By carefully considering the research done on children's identification with television characters, the researcher created characters that went against most of the established "identifiable" patterns. By controlling identification the researcher believed the children would better concentrate on the learning materials. This was to be measured by special appeal questions which consisted of pictures of the characters in the program.

(5) **The children would recognize the characters as being like people they knew.**

Here the researcher believed that if the

children could recognize the characters as being
like people they knew, they would be doing some-
thing of which they are easily cognitively capable
(Collins, 1979]. This was to be measured during the
interview portion of the testing to be conducted
with three selected students from each class,

(6)   The children would recognize the material on trans-
        portation as being located in the City of Windsor.

        Here the researcher was operating on much the
        same premise as that stated in objective #5. How-
        ever, here it was believed that the familia-
        rity would be even stronger because, whereas the
        children may not have contact with teenagers of
        whom the characters in the show would remind them,
        they had undoubtedly seen and/or used the different
        modes of transportation presented. As well, through
        discussions with the school board, the researcher
        was aware that transportation in Windsor was not
        already in any existing program owned by the board.
        This objective was to be measured both by a ques-
        tion in the post-viewing questionnaire and during
        the subsequent interviews with the selected child-
        ren from each class.

The Five Component Parts of "The Magic 5 Workshop"

There are five distinct components that come together

to form "The Magic 5 Workshop", each completely interrelating

to the other (see Figure 1). Each of the parts has a purpose

and function and can be changed to suit the educational focus

of the given program. These parts have evolved based on re-

search and are at the centre of the production research hier-

archy (see Figure 2). The following is a description of each

of the five parts,

(1)   Introduction and Primary Program Focus (PPF)

        This component must be dynamic as it is the
        first experience that the audience has with the
        program. There is a twofold purpose here. First,
        the children's aural and visual attention must be
        grabbed and held for as long as possible. Here
        the child is asking, "Is this fun?", "Am I going
        to enjoy this?" These questions must be answered
        affirmatively or the child will lose interest

94.

immediately. Second, this is the point where the primary program focus (PPF) is related to the audience. At this time the children begin concept formation about what the "5 W's" mean and what the importance is to them of all the materials being presented. If the children do not comprehend the focus, it will be extremely difficult for them to understand the later stages of the program.

(2) Imagination Games (IG's)

Here the fun must continue if the children are to remain attentive to the program. These games serve the purpose of fully engaging the children's interest as well as teaching them creatively. This creativity is shown as both a way to have fun and to learn at the same time.

(3) Putting It All Together (PIAT)

In this segment, the children are shown how everything that has been related to them to this point can make very real sense. Here there is concrete concept formation aided by the use of repetition and useful examples of the type of information the "Magic 5 W's" will help them to discover after the program is completed. This is the point where, with the help of a vicarious experience, direct learning should be taking place. The children see how the actors utilize the "Magic 5" and their imaginations, and are reinforced to understand how they themselves can use these valuable tools.

(4) Location Sequences (LS's)

Here there is continued reinforcement of how one is to use the "5 W's". By using the who, what, where, when, and why questions and coupling them with easily recognizable visual information, the child is shown how the tools can assist him/her in broadening their worldview. This is the component that directly aids in the expansion of the classroom experience, for here can be presented visually what the teacher would be unable to supply in the classroom.

(5) Summary and Closing (S&C)

This section provides for a very important dosage of positive reinforcement. The children are told what they have learned to this point in the program. The actors use the pronoun "you" with great purpose here in sentences like, "You have learned the following..." Everything is summed up for the audience.

Fig. 1

THE FIVE COMPONENT PARTS OF
"THE MAGIC 5 WORKSHOP"

Fig. 2

ANALYSIS

CHILD CENTRED

BRING TO SCHOOLS

CONTACT TEACHERS   ASSESSMENT DEVELOPMENT

CONTACT BOARD

FINISHED PROGRAM

PRODUCE IN STUDIO

REHEARSE/DE-BUG SCRIPT

CHOOSE CAST

FOCUS RELATED TO NEEDS   DEPENDS ON FOCUS   RELATED TO FOCUS

INTRO RELATED TO THEME   ANY "W" CAN BE FOCUS   DIRECTLY RELATED TO FOCUS (OR) CAN BE NON-RELATED HUMOUR   STYLE MAY DIFFER   DEPENDS ON BUDGET   ALWAYS NEEDED

INTRO & PPF   IG's   PIAT   LS's   S & C

THE MAGIC 5 WORKSHOP STRUCTURE

SCRIPT CONTENT DECISION

FORMAT DEVELOPMENT

DECIDE ON FOCUS

NEEDS ASSESSMENT   CONTACT TEACHERS   BEGIN RESEARCH   BUDGET

IDEA

PRODUCTION HIERARCHY

Any fuzzy concepts can be clarified at this point
so that only the primary information will be re-
tained by the students. The children are told that
a lot has been accomplished and they should exper-
ience some anticipatory energy for two reasons.
First, they should want to see another production
as soon as possible and secondly, they should want
to use some of the things they have learned from
the program in their classroom setting.

The Theoretical Framework of "The Magic 5 Workshop":

What Makes It a Useful Teaching Aid

The original concept of using the "5 W's" in as educa-

tional television program was born out of an intense desire

on the part of this researcher to see if a learning experience

that was highly successful with children in a face-to-face

situation was translatable to the electronic medium. "The

Magic 5 Workshop" was first developed as a developmental

theatre project in the summer of 1975. At that time there

was no attempt to use television, just live actors. The actors

in the project worked with elementary school age children in

the municipal parks in the Windsor area. They set up learning

situations that would help to stimulate the creative awareness

of these young people while teaching them something about the

history of Windsor and Essex County.

The decision to use the "5 W" approach was a simple one.

Actors use this "who", "what", "where", "when", and "why"

structure as a basis for the development of dramatic situa-

tions: the acting out of such scenes can intensify learning.

By asking the "5 W's", the actor can problem-solve independent

of directors (teachers). Thus the question was, "Why could

this beneficial learning tool not be used with children, to

get them to discover things for themselves?"

The program was a resounding success in the parks, as the children thoroughly enjoyed using the "5 W's" to construct stories from Windsor's history. The project encouraged the children to use their imaginations and they brought their stories alive to further enhance the learning experience. That successful initial project led to the first "Magic 5" television program. The subsequent positive testing of that show added credibility to the idea that the "5 W's", acted out via dramatic play, do work to aid learning on television and probably exteme-ly well. What remained, of course, was to cite support from the literature that such a learning model has some credence and is valid for use in an instructional television program.

Over the years, question-asking as an instructional method has been examined by theorists, especially in the area of tradi-tional academic and learning skills such as mathematical ability and learning from prose. Rothkopf (1965) looked at how quest-ions affect a child's learning. Following this Faw and Waller (1976) used question-asking to achieve specific instructional objectives. Further, researchers who worked with Rothkopf's findings found that questions which directly follow learning will increase both intentional and incidental learning (Rothkopf, 1966; Frase, 1970). In a 1968 study, Frase found that general questions lead to more learning than specific questions.

Although this material does not deal with instructional television, it can clearly be seen that question asking is indeed a part of the learning process. What was being

proposed in this thesis research was only a rudimentary question-asking methodology, to be sure, but one with a difference. Whereas the research cited above deals with question-asking that would be conducted by the teacher, the "Magic 5" approach called for the child to develop skills at questioning independent of the teacher. Based on the information presented here, it was believed that this program would accomplish the following things: (1) It would lead the children in the audience to at least some incidental learning because of the general question-asking approach and (2) It would provide them with a simple question-asking model to use in their general studies.

With regards to question-asking as it is directly related to television, Charles Callaci (1975;3-9), Director of the ITV Center of the California State Polytechnic University, states what he feels is a primary viewer participation strategy in an effective instructional television presentation:

> Probing questions such as what, why, where, when, and how are more challenging than those which can be answered with a simple "yes" or "no".

Again, although Callaci is not speaking about incorporating these questions into the body of a program verbatim, it was believed that they would be much more challenging if they were presented within the program itself while the material was being viewed and was still fresh in the child's mind. Realistically, this gave the program the unique quality of incorporating both questions for review and recall as well as the discovery

type, and each type is extremely important.

Researchers interested in maximizing both comprehension and receivership skills state that it is necessary to ask children questions about what they have watched immediately after they view due to a child's short term memory (Storm, 1977; Wolfe, Abelman and Hexamer, 1981). These researchers are advocating the review and recall types of questions, which naturally come after a program is completed. With "The Magic 5 Workshop", the children were to be presented with questions throughout the show, questions that they could ask themselves, which should have led to greater retention of the material. Also, this program was expected to help the children learn how to use the "5 W's" which by their very design are discovery questions. As well, while they were using these five questions to increase their general knowledge after the program was finished, the act of using them could be seen as further review and recall of the program.

Salomon (1979) reports that children learn from television not only from the content but from the way it is presented as well. When a child encounters a message in a television program, Salomon (1979:55) states that the child acquires two different kinds of knowledge: "information about the represented world and information about the mental activity used in gaining it. Clearly, "The Magic 5 Workshop" offered the audience a great deal of information about the "represented world" (i.e. various modes of transportation in Windsor),

but its structure really offered the most information about
a new "mental activity" that the children would be able to use
to expand their knowledge (i.e. how to use the "5 W's" as
discovery tools, how to use their imaginations to help them
to learn).

It was difficult to find direct support for the use of
imagination as an educational tool in a television program.
Most of the references cite children using their imaginations
in face-to-face communications and in play sessions. Yet,
this researcher knew from experience that an important rela-
tionship existed among imagination, attention and children.
His experiences with young children taught him that involving
children in a presentation via their imaginations always
succeeded in making them extremely attentive to live produc-
tions that sometimes lasted close to an hour. Clearly, even
though the children could be considered somewhat passive
viewers, confined as they were to their theatre seats, they
watched closely and experienced fully.

This example can be compared to the television experi-
ence. Although television viewing may be seen to be a physi-
cally passive experience (Winick and Winick, 1979, found this
not to be the case), again because the viewer can only watch
and not actually participate in the action, children have
been found to be extremely active both emotionally and psycho-
logically while viewing (Katz et al, 1974; Friedlander, 1975;
Winn, 1977). So, in this thesis production, even though the
children would most likely not be involved physically in the

imaginative play of the Magic 5 players during the show[3], they would most likely be excited by what they saw and excitement has been shown to be an important motivator in children's attention to television (Greenberg, 1974; Dembo and McCron, 1976). Wolfe, Abelman and Hexamer (1981) state that children will only learn from television if they are paying attention to it. Also, Lorch, Anderson and Levin (1979) found significant relationships between attention and comprehension, and comprehension has been shown to be a pre-requisite to learning from television (Storm, 1977). Therefore, by their intrinsic excitement, these imagination sequences that were used in the thesis production were seen to insure at least some attention and hence some learning. This was further supported by the results of the COST 40-505 project. The limited use of imagination sequences in that first Magic 5 show seemed to account for almost all of the learning that took place at that time, according to the children's own observations[4].

Singer and Singer (1976) further point out that television can stimulate a child's imagination. Placing the imagination games in this program which was already being shown on a medium that is purported to induce stimulation would increase the stimulation that might occur. This stimulation would further increase the child's attention and this would in turn aid in his/her recall of the program content (Watt and Krull, 1977).

Reasons for Character Choices

There were five characters in this program, three fe-
males and two males. Each of the characters represented one
of the five W's, who, what, where, when and why, although
they were not called by those names in the program (see
section on wardrobe). The actors were high school theatre
arts students who had been instructed to play the characters
as similarly to each other as possible. This was done in an
effort to limit the amount of identification with any one of
the characters on the part of the audience. It was the posi-
tion of this researcher that if none of the characters was
overly funny, or, for that matter, portrayed drastically
different from the others, the children would not choose
one over the other. The assertion was supported by the work
of several researchers who have studied in the area of chil-
dren's identification with television characters (Linné and
Felitzen, 1975; Noble, 1975; Kniveton, 1976; Winick and Winick,
1979).

The use of high students was chosen over adults (parental
character types) or children (peer characters) in a further
attempt to control for the identification variable. It was im-
portant to control for this variable because "any variable that
is perceptually salient can pull the child's attention away from
the education objectives" of an ITV program (Dennis, 1979:3) and
research has shown that live actors can be particularly distract-
ing (O'Bryan, 1975). If one coupled this with the quite strong
behaviour involved with something like "wishful identification"

(Linné and Felitzen, 1975) which occurs especially between young children and the stars of a television program, one's educational objectives would stand a good chance of being buried. It was hoped that by using actors of high school age that the child audience would not identify with them but rather recognize them as being similar to, for example, their older brothers or sisters (Noble, 1975).

Research has shown that animated and puppet characters are popular with children in both regular prime time programs and those of an instructional nature (Reeves, 1970; Anderson, Al- witt, Lorch, and Levin, 1979; Lesser, 1979). It was decided not to use this type of characters for two equally important reasons. First, to use animation successfully is extremely time-consuming. Unless the producer (researcher) is an ani- mator (which this researcher is not), it would be extremely difficult to create the type of neutral characters that this program demanded. Also, since children naturally enjoy ani- mation or puppet characters, they might easily identify with them no matter how neutral they were.

Second, a study by Quarforth (1979) pointed to the fact that children of primary elementary school age had difficulty in determining whether animated and puppet characters were alive or not. So, even though there was a risk of loss of attention by not using these types of proven characters, this researcher did not want to include any confusing information in the program.

It may seem that controlling the characters in this show

so strongly had to result in an irretrievable loss of attention
to the characters, but this did not have to necessarily be so.
There was support that showed that children attend well to fe-
male voices on the television (Linné and Felitzen, 1975;
Anderson and Levin, 1976; Anderson, Alwitt, Lorch, and Levin,
1979) and to close-ups of women's faces (Porter, 1979). By
including three women in this production and by giving them
equal with, if not a bit more, air time than the men, this
researcher believed that loss of attention to the characters
would not be a problem. At the worst there might be a slight
fluctuation in attention when the male characters were seen
alone on the screen, but it was believed that this would be
minimal.

The ratio of male to female characters was also chosen at
three females to two males to avoid any possibility of sex-
role biasing which has been very much a part of television
directed mainly at children (Downing, 1974; Long and Simon,
1974; Busby, 1974; Sternglanz and Serbin, 1974; Dohrmann, 1975;
Schneider, 1979). In this show the women were seen to do
everything that the men did and sometimes they did it better!

Reasons for Wardrobe Choices

Realizing that an instructional television character's
costume is every bit as much a part of the learning experience
as the character himself/herself, the costumes for this pro-
duction were considered very carefully. The characters wore
red T-shirts, each with one of the "5 W" words printed on it
in white block lettering. This was done to aid the children

in grades one and two who were in the pre-operational stage of their cognitive development and who might have had difficulty remembering concrete concepts such as the five words unless they were always right in front of them (Wackman and Wartella, 1977). The children in grade three were mostly in the concrete-operational stage of development and did not really need the words on the T-shirts to "jog" their memories. Hopefully, they just thought that the shirts were a good costume idea. The characters also wore non-designer denim jeans, with simple sports shoes, in keeping with the attempt at older brother and sister recognition (Noble, 1975).

Reasons for the Background and Set Choices

Before one does anything with the set or background in a children's instructional television show, one must first consider the relationship between the visual complexity of a television picture and the cognitive development levels of the intended audience. This having been considered, one has then to be concerned with how the background and set may or may not affect this relationship.

There is little doubt that stimulus complexity stimulates attention in learners as research with static stimuli presented to young people has shown (Cantor, Cantor, and Ditricho, 1963; Faw and Nunnally, 1968). Similar testing has been done using television programs instead of photographs and received differing results. Some researchers have shown that children of nursery school age up to the age level of grade two prefer programs that are visually complex (Wartella and Ettema, 1974).

Still other research states that some children of this age
level cannot understand highly complex pictures. However,
this research further states that an attempt at visual simpli-
city must not stop a show from being interesting and able to
command attention (Dennis, 1979). Recent research by Krull
and Husson (1980) reports tentative results to the effect
that most children enjoy visually complex programs, but that
older children (7½ to 8½ years of age) are able to be more
selective about what they view. The young child lacks a refined
ability for differentiating objects from the setting (Vernon,
1970) so he/she may be less likely than older children to be
able to pick out what is visually salient in a visually dis-
tracting complex picture.

Clearly, the construction of the proper visual stimuli
was extremely important to an instructional program geared to
children in grades one to three. Too complex a structure
could have been confusing , and not enough complexity could
have caused disinterest in the program. It could not be for-
gotten that a program that contained strong visual elements
would enjoy increased attention and interest from the audience
(Tidhar, 1963). However, as Neilsen (1979: 62) points out,
these visual elements had to be more than just strong:

> ...it seems that the complexity of the image presented
> on television is related to the amount of information
> the viewers will retain and that, up to a point, adding
> visual cues will help if they are relevant to the content.

Finally, the most recent research in this area, by Welch
and Watt (1982: 44), seems to give the most support to the

decisions made in this program with regards to visual complexity and attention:

> If attention to programming by young people is the goal, then producers who use visually simple sets, in terms of relatively few objects on the screen and an absence of irrelevant objects competing for the viewer's attention, will be most successful. Likewise, if learning is the ultimate goal, then these recommendations are even stronger. Under conditions of high static complexity, young children won't watch and certainly won't learn.

To add to the concept of visual complexity, one must not overlook the importance of colour to a modern day visual presentation. Although some researchers say that colour is not a determining factor in the effectiveness of an ITV program (Webster, 1974; Johnson and Roberson, 1979), this researcher has to agree with several other researchers who say that it _is_ very important (Vandermeer, 1954; Dwyer, 1971; Snowberg, 1973; Sabo and Hagen, 1973). Indeed, Lesser (1974) reminds us that our modern children are used to seeing high quality, expensively produced television at home, and they expect to see something similar in an ITV show. Any way one wants to consider it, colour is part and parcel of what a child expects to see on television.

Keeping all of the previous points in mind, this researcher tried to design the background and set for this production so that it would not be too visually complex and only offer relevant cues. Also, it had to be colourful, so as to be attractive, but not gaudy.

The background lighting was simple. Coloured lights were projected on the cyclorama using X-ray strip lights with red,

blue, yellow, green, and pink gels in them. This produced a certain "circus-like" effect in keeping with the upbeat pace of the show.

Graphics were used in four places in the program, two separate times to open the show, and two times incorporating the character generator during the main part of the program.[5] The opening graphic was the title card with "The Magic 5 Work-shop" painted in multi-coloured letters on a white background. This was used as there were no facilities for electronic animation or colour graphics in the University of Windsor Media Centre. The second set of graphics was of each of the five W words, each done in white letters on a black background. Again, this was used in a way that compensated for the lack of electronic animation equipment. (See opening sequence of script proper for full description.)

The first character generator graphic consisted of the word "imagination" keyed at about eye level of one of the female actors (see note #16 in script for full description), and the actor pointed to it. This was done to show the children what the word looked like, as it was probably a new word to most of the audience. Also, by the actor saying the word at the same time it appeared on the screen, there was strong reinforcement of the importance of this word to the whole program. This graphic was keyed over a shot of a female actor, alone on the set, so that a relevant cue was given in a relatively non-complex visual setting.

The character generator was used the second time to key

the five words over the opening of each transportation sequence.
Even though the background was more complex, this was not static
complexity, but rather dynamic complexity[6], so the children
would pay attention to both the word and the action on the
screen. The character generated word was made relevant because
the word was repeated simultaneously on the sound track. (See
transportation sequences section of script for full description.)

The set for this production was kept extremely simple so
that it did not distract the children's attention from the
educational objectives. It consisted of two oval platforms,
one on top of the other, creating an acting space approximately
25 cm. high X 3 m. wide X 1.75 m. deep.[7] This provided an
excellent stage area with few competing visual cues. There
was also an artificial boulder upstage left (screen right) to
serve as an additional acting level and also to add some vari-
ation to the neutrality of the set. Downstage right (screen
left) there was a 0.75 m. X 0.75 m. box painted in the manner
of a circus prop. (i.e. bright yellow in colour, with a large
star on three sides). This also added variation to the set
and supplied an additional acting level, but it was small
enough so that it did not detract from the main action. The
set was designed to be an utilitarian acting space where the
actors could teach and entertain without the use of a lot of
flashy set pieces.

Reasons for the Prop Choices

The only prop used in this program was a book of the his-
tory of Windsor. All other props were mimed by the actors.

The book was used because it was believed that the Magic 5 W's
would be too abstract to get across to the children without
actually showing them the concrete object. Everything else
was mimed, in keeping with the objective of getting the child-
ren to use their imaginations. It was believed that, by using
only mime, the children would more readily use their imagina-
tions when working with the aspects of the program in any
possible, post-program creative experiences. The children
saw that props were not necessary to convey creativity-based
information to others.

CHAPTER 5

PART II

Annotated Script

Producer/Director : Richard Dunn

Production Date : April 21, 1982

Studio : Studio A, Media Centre,

University of Windsor

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NOTE: All footnotes for this Annotated Script shall appear in explanatory footnote form at the bottom of each page. All changes from the original December 1st, 1981 script (which was submitted and passed for production) which had to be changed in the studio will be signified by Roman numerals and will appear in the Notes section of this chapter.

The format for the annotation was based on Flannery, (1973). The script itself was set-up in the manner suggested by Abel (1979).

Video	Audio
IN BLACK	<u>MUSIC: DISC</u>
CAM.3 FADE TO TITLE GRAPHIC "The Magic 5 Workshop".[1]	[I]CALLIOPE "CIRCUS TYPE" MUSIC. ...UP THEN UNDER TO BLEND WITH VOICEOVER.
	<u>VOICEOVER</u>:
	Ladies and gentlemen, welcome to the greatest show on earth, "The Magic 5 Workshop!"[3a]
	<u>MUSIC AND VOICEOVER OUT.</u>
CUT TO CAM.2 MEDIUM LONG SHOT OF MATT OF WORD "WHO".[II] ZOOM-IN ON MATT UNTIL WORD FILLS THE SCREEN. THIS SAME PATTERN IS REPEATED FOR EACH OF THE REMAINING FOUR WORDS.[2]	<u>MUSIC:</u> HANDCLAPPING WITH SYNCOPATED RHYTHM.
	<u>VOICEOVER</u>: (LIVE) BLEND OF VOICES OF ALL FIVE ACTORS TO GIVE EFFECT OF A CHEERING SECTION...SAY AS WORD FILLS SCREEN:
	Who![3b]

[1] Some research has indicated that graphics can be distracting for learning in an ETV program (Sarno and Meador, 1969; Schlater, 1972). Still, others have indicated that graphics are an excellent way of both entertaining and gaining attention (Tidhar, 1963; O'Bryan and Silverman, 1973; O'Bryan, 1976; Ball and Bogatz, 1973; Mock, 1976).

[2] O'Bryan (1976) found that zoom boxes were effective in getting children to concentrate on a sentence or word in a program. The Media Centre does not have electronic zoom boxes. It was hoped that the camera zoom would produce similar results.

[3a] & [3b]Lorch, Anderson and Levin (1979) found that auditory attention is positively related to visual attention in children's television viewing behaviour. The calliope sounds with the opening graphic and the clapping sounds coupled with the verbalization of the individual words and the camera zooms, should cause strong attention on the part of the children.

113.

CUT TO CAM.1 ON MATT OF WORD "WHAT". ZOOM-IN ON WORD TO FILL SCREEN.

MUSIC:
CLAPPING CONTINUES. VOICE-OVER AS PREVIOUS, SAY AS WORD FILLS SCREEN:

What!

CUT TO CAM.2 ON MATT OF WORD "WHERE". ZOOM-IN ON WORD TO FILL SCREEN.

CLAPPING CONTINUES. VOICE-OVER AS PREVIOUS, SAY AS WORD FILLS SCREEN:

Where!

CUT TO CAM. 1 ON MATT OF WORD "WHEN". ZOOM-IN ON WORD TO FILL SCREEN.

CLAPPING CONTINUES. VOICE-OVER AS PREVIOUS, SAY AS WORD FILLS SCREEN:

When!

CUT TO CAM.2 ON MATT OF WORD "WHY". ZOOM-IN ON WORD TO FILL SCREEN.

CLAPPING CONTINUES. VOICE-OVER AS PREVIOUS, SAY AS WORD FILLS SCREEN:

Why!

CAST:

The Magic 5 W's, Yeah-h-h!!

DIP TO BLACK.

FADE AUDIO TO BLACK.

FADE TO CAM.3 WIDE ANGLE SHOT OF CAST ON SET.

CAST IS "DISCOVERED" ON SET AT VARIOUS ACTING LEVELS.III

EACH IS WEARING A RED T-SHIRT WITH A DIFFERENT MAGIC 5 WORD ON IT.

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CUT TO CAM.2 [4a]

ANNE LOUISE: (WHO)

Hi and welcome to "The
Magic 5 Workshop". Oh, I
know what you're thinking.
No, we're not the Magic 5.
We're just here to tell you[5]
what they're all about.

BRIAN: (WHAT)

This is the place where you
and I learn how to ask
questions to find out about
things we don't know.

MAUREEN: (WHERE)

'Cause we know it isn't
always easy to know every-
thing about everything.

CUT TO CAM.1[4b]

DAVE: (WHEN)

And because this is a work-
shop, we work with special
tools to help us get our
job done.

MARIANNE: (WHY)

And those tools are the
Magic 5 W's, who, what,
where, when, and why, all
wrapped up with our imagi-
nations. Have you got all
that?

[4a] & [4b] These somewhat static shots were deemed necessary
at this point to avoid too much visual complexity during
the introduction of the cast, and also because it was very
difficult to include the whole cast without using a wide
angle.

[5] Abel (1979) suggests the use of "you" whenever possible
to help develop a one-to-one relationship with the audi-
ence; this will be used throughout.

115.

| CUT TO CAM.3. TILT-UP TO FOLLOW AS CHARACTERS STAND. | BIZ:

ANNE LOUISE STANDS; OTHERS FOLLOW.

ANNE LOUISE:

Here we'll show you what we mean.[6] The Magic 5 W's are questions.

BIZ:

CAST JOINS UP IN CENTRE OF ACTING SPACE AND PREPARES TO SING THE "QUESTION SONG".

MUSIC:

[IV]ACTORS SING ACCAPELLA:

The Magic 5 W "Question Song"[7]

CAST (IN CHORUS): V

Questions! Questions!
Where would we be without questions?
Whenever I'm curious about anything,
I just have to ask a question!

ANNE LOUISE:

Simple questions are sometimes the best. |

---

[6] Each of the segments or "bits" of the program were kept fairly short, similar to the introduction. Research has shown that long "bit" lengths decrease children's attention (O'Bryan, 1976).

[7] Anderson, Alwitt, Lorch and Levin (1979) found that sound effects, auditory changes, laughter, animation, puppets, movement and children's and women's voices are important devices for gaining attention in a children's television show. This song/explanation segment contains several of these devices.

CUT TO CAM.2 IN MEDIUM SHOT.

SINGING ENDS AT THIS POINT.

BRIAN:

You get an answer that's easy to understand.

BIZ:

MAUREEN TAKES SLIGHT STEP FORWARD.

MAUREEN:

I'll let you know what I always do whenever I have to know something.

BIZ:

ALL PAUSE. AS MAUREEN IS ABOUT TO RESUME, MARIANNE JUMPS IN FRONT OF HER.

MARIANNE:

I use the Magic 5, that's right. Five little questions is all I need and here's how they work.

BIZ:

ALL ACTORS EXCEPT ANNE LOUISE EXIT STAGE RIGHT.
ANNE LOUISE POINTS TO WORD ON T-SHIRT.[8]

---

[8] O'Bryan (1975) points out the difference between those images which have high educational value and those that have high entertainment value. Any visual images which serve to act as specific stimuli directing the child's attention to particular educational aspects of the program (particular letter, word,or sentence) would be highly educational. Visual images which tend to engage the child more empathetically are said to be highly entertaining. Live actors are said to be entertaining and not educational, per se. However, it is hoped that by the actors pointing to the word on the shirt as they speak, some educational stimulation will occur.

ANNE LOUISE:

The first question is who?
The answer tells me about the
person or the people I'm
talking about.

BIZ:

DAVE AND MAUREEN WALK ACROSS
FROM STAGE LEFT TO STAGE RIGHT.
ANNE LOUISE WATCHES THEM.

ANNE LOUISE:

Who are you?

DAVE:

I'm Dave!

MAUREEN:

I'm Maureen.

BIZ:

DAVE AND MAUREEN TURN TO FACE
CAMERA.

CUT TO CAM.3 IN MEDIUM 2-SHOT

DAVE AND MAUREEN:

[VI]And we're ordinary people just
like you.[9]

CUT TO CAM.1 IN MEDIUM SHOT.

BIZ:

MAUREEN AND DAVE EXIT STAGE
RIGHT. ANNE LOUISE EXITS STAGE
LEFT. ENTER MARIANNE STAGE
LEFT TO SIT DOWN LEFT OF BOUL-
DER. BRIAN ENTERS STAGE LEFT
AND CROSSES ABOVE MARIANNE TO
SIT ON BOULDER.

---

[9] This is a direct attempt to stimulate recognition as sup-
ported by Noble (1975).

CAM. 1 ZOOM-IN SLIGHTLY TO TIGHTEN SHOT.	BRIAN:
	The second question is what? That tells me the things that people do, like...
	BIZ:
	BRIAN LOOKS DOWN TO WHERE MARIANNE IS SEATED READING A BOOK.
	BRIAN:
	What are you doing, Marianne?
	MARIANNE:
	I'm reading this really neat book about the history of Windsor.
CUT TO CAM. 2 IN MEDIUM SHOT.	BIZ:
	MAUREEN IS DISCOVERED SITTING ON THE "CIRCUS CHAIR" UPSTAGE RIGHT, POINTS TO WORD ON HER SHIRT AS SHE SPEAKS.
	MAUREEN:
	The third question is where? That tells me where things happen. Is it in Windsor, or Detroit, or...
	BIZ:
CAM.2 TILT UP TO FOLLOW AS SHE STANDS.	MAUREEN POINTS TOWARD CAMERA.
	MAUREEN:
	Or is it in your classroom?
	BIZ:
CUT TO CAM.3 MEDIUM WIDE ANGLE SHOT.	MAUREEN EXITS STAGE RIGHT. DAVE ENTERS DOWN STAGE RIGHT.

DAVE:

The fourth question is, when?
That tells me what time things
happen...Listen...Time for
lunch,bye!

BIZ:

DAVE RUNS OFF STAGE RIGHT.

BIZ:

MARIANNE SNEAKS ON FROM BACK
OF SET TO UPSTAGE CENTRE.[10]

MARIANNE:

The last question is, why?
and that tells me the most
important thing of all...

BIZ:

SCRATCHING HER HEAD

MARIANNE:

...how come all this stuff
happens and why do I have so
many...?

BIZ:

CAM.3 ZOOM-OUT TO FULL WIDE
ANGLE SHOT.

ENTER CAST STAGE RIGHT AND LEFT
TO JOIN UP IN CENTRE TO SING IN
CHORUS AS PER PREVIOUS SINGING.

MUSIC:

CAST SINGS ACCAPELLA

[10] This is a direct attempt to infuse some humour into the
program as Zillman and Bryant (1980) have found it to be
quite effective.

CAST: (IN CHORUS)

Questions, Questions,
Where would we be without
questions?
//Whenever you're curious about
anything,
What do you have to do?
That's right!
You just have to ask a question.//
                          (repeat once)

BIZ:

ALL SIT ON SAME ACTING LEVEL
ON-FRONT OF PLATFORM.[11]

DIP TO BLACK.   DIP AUDIO TO BLACK.

QUICK FADE TO CAM.2 ON   ANNE LOUISE:
MEDIUM SHOT

Well that's the way the Magic 5
W's, who, what, where, when and
why work,[12] and if you think
about it, you probably use
them everyday.

CUT TO CAM.1 MCU   BIZ:

BRIAN DOWN ON ONE KNEE,
FACING CAMERA.

BRIAN:

That's right, by using these
five special questions, you
can find out about anything
or anyone that you want. You
can BE anyone you want to be too.

---

[11] O'Bryan (1976) reports in his research on the READALONG
program that child viewers need rest breaks following
periods of high arousal. The next section is much more
slowly paced.

[12] Both Lesser (1974) and Friedlander (1975) indicate that
repetition is necessary for children to learn from tele-
vision, so this is another chance to repeat the 5 W's.

CUT TO CAM.3 IN WIDE ANGLE SHOT.[13]	**BIZ**:

BIZ:

MAUREEN IS DAYDREAMING AS BRIAN NUDGES HER.

MAUREEN:

Oh! Right! Oh, I've got it. That's why they're magic! C'mon, let's put our new tools to work.

BIZ:

ALL RISE, BUMP INTO EACH OTHER, GENERAL CHAOS.[14]

ANNE LOUISE:

Hold it, hold it everyone!

BIZ:

ALL OTHERS STOP, TURN TO FACE ANNE LOUISE.

ANNE LOUISE:

Before the Magic 5 W's will really work, you have to add your second tool.[15]

---

[13] The large number of shots of this type served two purposes: 1) All the action could be followed and 2) no one character was highlighted so that identification was further controlled.

[14] It is important at this point to mention something about the choice of pacing for the program. Singer (1978) and Singer and Singer (1979) found that young children (especially pre-schoolers), pay more attention to fast paced programs such as "Sesame Street", but appear to learn more from more slowly paced shows such as "Mr. Rogers". Others, such as Lesser (1979) feel that children are better served by variety in a production style. The choice of pacing in this program agrees with Lesser, as personal experience has shown that a fast-slow pace tends to lead children to greater creativity and imaginative play.

[15] O'Bryan (1976:7) points out that "direction of attention to the specific element desired could be obtained largely through clean and accurate cuing". Here the actor is giving a clear cue as to what is coming.

CUT TO CAM.1 FOR MEDIUM
SHOT OF ANNE LOUISE. PAN
LEFT TO FRAME CHARACTER ON
RIGHT OF SCREEN. MATT KEY
USING CHARACTER GENERATOR.
WORD IS "IMAGINATION". IT
APPEARS TO ACTOR°S RIGHT,
SCREEN LEFT, POSITIONED AT
ABOUT ACTOR"S EYE LEVEL.[16]

CUT TO CAM.2 FOR MEDIUM
SHOT OF DAVE.

CUT TO CAM.3 FOR MEDIUM
COVER SHOT.

BIZ:

CAST WHISPERS AD LIBS SUCH
AS, "WHAT CAN IT BE?", WHAT
IS IT?", ETC.

BIZ:

ANNE LOUISE POINTS TO RIGHT
AT JUST ABOUT EYE LEVEL

ANNE LOUISE:

Imagination!

BIZ:

DAVE LOOKS INTO CAMERA.

DAVE:

That's right, you need your
imaginations, especially if
you want to find out about
something that happened a
long time ago, when you couldn't
be there.

MAUREEN:

Or something that is happening
in another country.

MARIANNE:

Or even something that's going
on right now, right today in our
own city. Your imaginations
can make it come alive for you
in your own classroom.

---

[16] O'Bryan and Silverman (1973:16) report that "when print
was to appear with a live actor, it was found to be most
effective at the actor's eye level".

ANNE LOUISE:

I've got an idea! Let's play some games that will help us warm up our imaginations so that we can really use the Magic 5 W's.

BIZ:

MARIANNE CROSSES RIGHT, MAKES ANNOUNCEMENT, THEN STOOPS TO PICK UP AN IMA- GINARY ROPE.

MARIANNE:

Here, I've got a good one[17] Let's play the rope game.

BIZ:

OTHERS AD LIB SOUNDS OF CONFUSION AS MARIANNE BEGINS TO PULL ON ROPE.

MARIANNE:

Here, I've got a rope. C'mon, help me pull on it! It's really stuck.

BIZ:

ALL ACTORS EXCEPT BRIAN MOVE STAGE LEFT BEHIND MARIANNE TO HELP PULL "ROPE". BRIAN CROSSES TO STAGE RIGHT.

BRIAN:

I don't see any rope there!

CUT TO CAM.1 ON MEDIUM LONG SHOT.

CUT TO CAM.2 MEDIUM LONG SHOT.

---

[17] This is a very popular humourous "bit" to follow. The first Magic 5 test results indicated that the rope pull was what the children liked best. (See Appendices 1 and 2 of thesis submission.) See also note #9 of script for importance of humour.

CUT TO CAM.1 MEDIUM LONG
SHOT.

CUT TO CAM.2 MEDIUM LONG
SHOT.

MARIANNE:

Sure there is, if you use
your imagination.

BIZ:

BRIAN COVERS HIS EYES WITH
HIS HANDS AS IF CONCENTRATING
VERY HARD.

BRIAN:

I still don't see it!

BIZ:

MARIANNE CROSSES RIGHT AND
MIMES HANDING HIM THE OTHER
END OF THE ROPE.

MARIANNE:

Here, hold this end.

BIZ:

MARIANNE GOES BACK TO STAND
WITH OTHERS.

MARIANNE:

Got it?

BRIAN:

Yeah....okay.

BIZ:

OTHERS MAKE AS IF THEY ARE
GOING TO PULL ON THE ROPE.

MARIANNE:

Ready everyone? One, two, three...

BIZ:

THE OTHERS PULL ON THE ROPE WITH
MARIANNE.

MARIANNE:

Pull!!!

BIZ:

BRIAN IS SENT SPRAWLING.

CUT TO CAM.3 MEDIUM COVER
SHOT.

BIZ:

MARIANNE CROSSES RIGHT TO
HELP BRIAN UP.

MARIANNE:

Now do you see the rope?

BRIAN:

Yeah!!

CUT TO CAM.1 MEDIUM SHOT.

BIZ:

ALL COME TOGETHER ON PLATFORM
TO START NEXT SEQUENCE.

DAVE:

Say, that was great! What
do you say we play another
game to help us warm up our
imaginations.

CUT TO CAM.2 MEDIUM LONG
SHOT.

MAUREEN:

What about playing, "What's
in the box?"[18]

DAVE:

Yeah, great, I'll help.

[18] One sees from the "Sesame Street" research that "surprise"
attention-getting devices are important. Charlesworth
(1970) points out that surprise elements will help to make
the learners curious to view an event. This game will pro-
vide for a number of surprise elements.

CUT TO CAM.2 MEDIUM LONG
SHOT TO COVER ACTION.

CUT TO CAM.1 MEDIUM SHOT.

CUT TO CAM.3 MCU OF DAVE

BIZ:

MAUREEN AND DAVE EXIT OFF
CAMERA STAGE RIGHT TO GET
THE "BOX".

BIZ:

GENERAL AD LIBS, "WHAT ARE
THEY DOING?", "WHAT GAME IS
THAT?, ETC.

BIZ:

ENTER DAVE AND MAUREEN
PUSHING AND CARRYING A LARGE
MIME BOX. THEY MOVE TO CEN-
TRE OF PLATFORM. PUT BOX DOWN.
OTHERS COUNTER LEFT AND RIGHT.

MAUREEN:

Now, if you're all using your
imaginations, you can see a
big, beautiful box here...
Does everyone see it?

BIZ:

OTHERS SAY, SURE, YEAH, IT'S
GREAT, AND VARIOUS OTHER AD LIBS.

BIZ:

DAVE IS LOOKING DIRECTLY INTO
THE CAMERA.

DAVE:

Alright, I'll go first and
pull something out of the box.
As soon as you know what it is,
shout out the answer.[19]

---

[19] O'Bryan (1976) and Winick and Winick (1979) report child
audiences getting involved in programs to the point of
verbally interacting with the screen. This was an attempt
to involve the children in a direct way by inviting them
to shout the answer. See end note #8.

CUT TO CAM. 2 MEDIUM LONG SHOT.	BIZ:
	DAVE MIMES TAKING A SKIPPING ROPE OUT OF THE BOX AND SKIPPING WITH IT.
CUT TO CAM. 3 MEDIUM COVER.	ALL:
	A jump rope, a skipping rope.
	DAVE:
	That's right! Who's next?
	BIZ:
	DAVE MOVES UPSTAGE TO STAND WITH OTHERS.
	BRIAN:
	I'll go next.
	BIZ:
	BRIAN CROSSES TO UPSTAGE OF BOX. MIMES TAKING OUT A LARGE BALL (A BEACH BALL), PLAYS WITH IT BY TOSSING IT INTO THE AIR.
	MAUREEN:
	I know! It's a ball!
	BIZ:
	BRIAN CONTINUES TO TOSS BALL INTO THE AIR.
CUT TO CAM. 1 MEDIUM SHOT.	BRIAN:
	Okay, but what kind of a ball is it?
	MARIANNE:
	A bowling ball!
	BRIAN:
	Nooo!! Look how big and light it is.

	ANNE LOUISE:
	A beach ball?
	BRIAN:
	Right! Who's next?
CUT TO CAM.2 MEDIUM SHOT.	**MAUREEN:**
	I'll do it.
	BIZ:
CUT TO CAM.3 MEDIUM COVER.	MAUREEN CROSSES TO BOX AND MAKES A BIG SHOW OF PULLING OUT A VERY LARGE OBJECT. "IT'S" A ROWBOAT. SHE SITS AND BEGINS TO MAKE ROWING MOTIONS.
CUT TO CAM.1 MEDIUM SHOT.	**MARIANNE:**
	I've got it right this time. It's a rowboat!
CUT TO CAM.3 CU OF MARIANNE.[20]	**BIZ:**
	MARIANNE TURNS TO LOOK DIRECTLY INTO THE CAMERA.
	MARIANNE:
	Okay, now that we all have our imaginations all warmed up, let's put our new tools together.[21] Let's say that you want to find out about something that happened a long time ago, something that was a part of the city of Windsor, what can you do?

[20] Both Noble (1975) and Winick and Winick (1979) point out that close-ups of characters may lead to stronger identification with characters as a "persona" type of character. This type of shot was avoided for the most part in this program. The purpose here is to isolate the character from the main action in order to furnish the audience with an adequate cue to the next section.

[21] Actor is giving a clear cue to next bit, see note #15.

CUT TO CAM.2 MEDIUM SHOT.	BIZ: BRIAN IS SITTING ON "CIRCUS CHAIR" HOLDING A HISTORY BOOK. BRIAN: Well, first you can go to a history book like the one I have here. This book will tell you all about Windsor's past.
CUT TO CAM. 1 TO PICK UP MAUREEN AND OTHERS.	MAUREEN: And to make your search in the book a lot easier, you can use the Magic 5 W's and ask questions. Like this:VII Who are the people in the story? What did they do? Where did this happen? When did this take place? and Why did this happen? All that stuff is right in the books and by asking the right questions you can dig it out.
CUT TO CAM.2 MCU.	MARIANNE: But you don't have to stop there. Once you've found all that stuff you can use your imagination to make it come alive for you in your classroom. Watch how we do it and you can learn to do it too.22
CUT TO CAM.3 MEDIUM COVER SHOT.	BIZ: ANNE LOUISE AND BRIAN ARE UP-STAGE LEFT READING THE HISTORY BOOK. THEY PUT THE BOOK DOWN AND MOVE TO THE CENTRE AND TAKE UP POSITIONS TO MIME THE PADDLING OF A CANOE. THE OTHERS ARE AROUND THEM.

22 Again the actor is cuing here for the next segment.

	ANNE LOUISE: We are famous characters from Windsor's past.[23] BIZ: VARIOUS AD LIBS. "WHAT MAKES YOU SO FAMOUS?" ETC.
CUT TO CAM.2 MEDIUM SHOT.	DAVE: Well, use you Magic 5 W's and find out. MAUREEN: Okay, who are you?
CUT TO CAM.3 MEDIUM COVER.	DAVE: I am Father Armand de la Richardie This is Father Potier. We are Jesuit missionaries from Fort Pontchartrain in Detroit. BRIAN: What are you doing ? ANNE LOUISE: We are paddling our canoe across a river. MARIANNE: Where is this happening? DAVE: We are travelling across the Detroit River to land near the spot where the Assumption Church now stands.

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[23] The information to follow is taken from the book, Radio Sketches Of Periods-Events-Personalities From The History Of The Essex County-Detroit Area. Complete note at end of submission.

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	BRIAN:
	When is this taking place?
	ANNE LOUISE:
	It is the year of our Lord, 1750.
	MAUREEN:
	Why are you doing this?
	DAVE:
	We want to bring the word of God to the Frenchmen and the Huron Indians of Windsor.
	BIZ:
	BRIAN STANDS.
CUT TO CAM.2 IN MCU. TILT UP TO FOLLOW AS STANDS.	**BRIAN:**
	So, you can see from this little story how the Magic 5 W's and our imaginations can be used to study history. Father Richardie and Father Potier, they weren't really with us, but by using our imaginations we made them come to life.
CUT TO CAM.3 MEDIUM COVER SHOT.	**MARIANNE:**
	Now let's take a look at something that is happening right now, right today in our own city. Let's use our brand new tools to find out about transportation in Windsor.
CUT TO CAM.1 MEDIUM SHOT	**BIZ:**
	ALL RISE, START SOUNDS LIKE A STEAM ENGINE STARTING UP CHANTING TRANS-POR-TA-TION. CROSS TO LEFT UPSTAGE LEFT TO CENTRE STAGE TO DOWNSTAGE CENTRE. ANNE LOUISE LEADS TRANSPORTATION CHEER.[24]

[24]The segment incorporates both the effective use of humour (Zillman and Bryant,1980) and a change in audio components to gain positive attention (Mock, 1976; Anderson, Alwitt, Lorch and Levin, 1979).

CUT TO CAM.2 MEDIUM SHOT.	ANNE LOUISE: (OTHERS SAY ALONG WITH HER)
CUT TO CAM.3 MEDIUM COVER.	T-R-A-N-S-P-O-R-T-A-T-I-O-N What does that spell? Transportation!!!
	BIZ:
	ALL SIT FACING FRONT ON LOWER PLATFORM.
	MAUREEN:
	What should we do next?
	BRIAN:
	Let's use the Magic 5 W's to find out how transportation is important to use here in Windsor.
CUT TO CAM.2 MEDIUM SHOT.	ANNE LOUISE:
	Okay, let's see,well, Who uses transportation? We all do, you, me, everyone.
CUT TO CAM.3 MEDIUM COVER.	BRIAN:
	What is transportation? It's Transit Windsor buses, Chrysler cars, Veteran taxicabs, Via-CN trains, Air Canada airplanes, bicycles, or just plain walking.
CUT TO CAM.1 MEDIUM SHOT.	MAUREEN:
	Where do you use transportation? You use it right here, in your city of Windsor.
	DAVE:
	When do you use transportation? You use it when you go to school, or to the store, or anyplace.
CUT TO CAM.3 MEDIUM COVER.	MARIANNE:
	Why do you use transportation? Because it is the only way to get from here...

<table>
<tr><td></td><td>` BIZ:

MARIANNE STANDS AND WALKS ACROSS
TO STAGE RIGHT AS SHE SPEAKS.

MARIANNE:

...to here.</td></tr>
</table>

CUT TO CAM.2 MEDIUM SHOT.	BIZ: MAUREEN STANDING LOOKING INTO CAMERA. MAUREEN: Well, that's what the Magic 5 W's tell us about transportation here in the workshop. Now let's go outside and find out more about how people travel in Windsor.[25]
DIP TO BLACK	BIZ: ALL WALK TOWARD CAMERA. DIP AUDIO TO BLACK.
THE FOLLOWING WERE THE LOCATION SEQUENCES ON TRANSPORTATION IN WINDSOR.[26]	
DISSOLVE TO MEDIUM SHOT OF ANNE LOUISE.	BIZ: ANNE LOUISE STANDING NEAR CORNER OF HURON LINE AND TECUMSEH ROAD.

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[25] Both Noble (1975) and Porter (1979) mention recognition as being important to the ways in which children learn from television. The following unit on transportation in Windsor was designed to make the most of this recognition variable. It is hoped that the children will find this part of the show special because it will contain elements they can readily recognize.

[26] The information chosen for this section is based on the guidelines set forth in "Canadian Studies - The Formative Years", Environmental Studies Department Curriculum Guidelines For Windsor Separate School Board.

CHARACTER GENERATOR MATT
KEY OF WORD "WHO" IN
UPPER LEFT CORNER.[27]

PAN TO SHOW PEOPLE IN CARS.

FADE CHARAC. GENERATOR.
ZOOM-IN TO OVER SHOULDER
SHOT TO SHOW THE HEAVY
TRAFFIC.

CUT TO MEDIUM LONG SHOT OF
BRIAN WITH HIGHWAY 18 SIGN
IN BACKGROUND.
CHARAC. GENERATOR OF WORD
"WHAT" IN UPPER LEFT.

ZOOM-IN FOR OVER THE SHOULDER
SHOT OF SIGN. CHARAC. GENER.
OUT.
TILT DOWN TO SHOW TRAFFIC.

CUT TO MEDIUM CLOSE-UP OF
MAUREEN WITH INTERIOR OF
CAR IN BACKGROUND.

CHARAC. GENER. OF WORD
"WHERE" IN UPPER LEFT.

ANNE LOUISE:

Some people like to ride in a
car. Who uses cars? ...Lots
of people, just look.

ANNE LOUISE:

There are sure a lot of cars
in this city. Windsor is the
car capital of Canada.

BIZ:

BRIAN STANDING NEXT TO HIGH-
WAY 18 SIGN.

BRIAN:

Do you know what makes up
transportation? Well, roads
are a big part of it and they
haven't always been made of
cement and tar.
This is Highway 18. It's
pretty busy today, but a
long time ago it was just a
dust covered Indian path.

BIZ:

BRIAN TURNS TO FACE AWAY FROM
CAMERA.

BIZ:

MAUREEN SITTING IN CAR FACING
CAMERA.

MAUREEN:

Where does transportation take
you in Windsor?

MAUREEN:

You can use it to go across
town.

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[27] This was done for the purpose of repetition as per note # 12.

MEDIUM SHOT THROUGH CAR
WINDOW AS IT TRAVELS.
CHARAC. GENER. OUT.

BIZ:

MAUREEN SITS DOWN.

MAUREEN: (VOICEOVER)

It can take us for a ride
on a train, maybe even to
Toronto.

CUT TO SHOT OF EXTERIOR OF
WINDSOR TRAIN STATION.
CHARAC. GENER. IN VARIOUS
SHOTS OF TRAINS.
CHARAC. GENER. OUT.

MAUREEN: (VOICEOVER)

Or you can fly off in a plane
to some far away place.

CUT TO EXTERIOR SHOT OF
PLANES ON TARMAC AT
WINDSOR AIRPORT.
CHARAC. GENER. IN.

CHARAC. GENER. OUT.

CUT TO MEDIUM SHOT OF DAVE.
CHARAC. GENER. OF WORD
"WHEN" IN UPPER LEFT.

BIZ:

DAVE STANDING BESIDE BUS
FACING CAMERA.

DAVE:

VIII Some people like to ride on
Transit Windsor buses. When
do you use Transit Windsor buses?
You use them if you don't have
a car and you have to get some-
where. See you later.

PAN LEFT AND TILT-UP TO
COVER HIM GETTING ON THE
BUS.
CHARAC. GENER. OUT.
CUT TO VARIOUS SHOTS OF
BUSES.

BIZ:

DAVE GETS ON BUS. WAVES AS
HE SITS DOWN.

CUT TO MEDIUM CLOSE-UP OF
MARIANNE.
CHARAC. GENER. OF WORD
"WHY" IN UPPER LEFT.

BIZ:

MARIANNE STANDING FACING CAMERA.
AMBASSADOR BRIDGE EXIT IN
BACKGROUND.

MARIANNE:

Did you ever notice how impor-
tant signs and signals are to
transportation in Windsor?
Well...

CHARAC. GENER. OUT.

CUT TO SHOT OF STOPLIGHT.	MARIANNE: (VOICEOVER) They tell us when we should stop and when to go.
CUT TO SHOT OF SPEED LIMIT SIGN.	MARIANNE: (VOICEOVER) How fast we can drive.
CUT TO SHOT OF CITY OF WINDSOR SIGN.	MARIANNE: They tell us what city we are in.
CUT TO SHOT OF MCDONALD'S SIGN.	MARIANNE:(VOICEOVER) And they even tell us where to eat!
CUT TO CAM.3 IN STUDIO MEDIUM COVER.	BIZ: CAST WALK IN AND SIT AT VARIOUS LEVELS AFTER DELIVERING LINE. CAST: And some people just like to walk!
CUT TO CAM.1 MEDIUM SHOT.	MAUREEN: Well, that tells you a little bit of what transportation is all about in Windsor.
CUT TO CAM.3 MEDIUM COVER.	ANNE LOUISE: Whenever you do anything, going to school, going to visit your friends or relatives, or going to the store, you use transportation in some way.
CUT TO CAM.1 MEDIUM SHOT.	DAVE: Well, you sure have learned a lot here today at the Magic 5 Workshop.
CUT TO CAM.3 MEDIUM COVER.	BRIAN: You learned to ask five special questions to find out about a lot of things, like history or transportation.

CUT TO CAM.2 MEDIUM SHOT.	**MARIANNE:** And what are those five questions? **BIZ:** EACH CAST MEMBER POINTS TO WORD ON OWN SHIRT.
CUT TO CAM.3 MEDIUM COVER.	**ANNE LOUISE:** Who? **BRIAN:** What? **MAUREEN:** Where? **DAVE:** When? **MARIANNE:** Why? **ANNE LOUISE:** And don't forget you learned how to use your imaginations with the Magic 5 W's, so that everything you find out by asking questions can come alive for you in your classroom. **BRIAN:** Well, that's about all the time we have at the workshop today. See you all real soon with more Magic! **BIZ:**[28] ALL WAVE AND SAY BYE. EXIT TOWARD CAMERA.

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[28] This researcher came across no data to suggest the importance of credits for children's ITV programs. However, they were omitted here because it was believed that the children would not be able to read them anyway. Also, they would really serve no instructional purpose.

Conclusion:

The mediation research conducted in this chapter should give the reader a clear conception of the structure of "The Magic 5 Workshop". Each decision was carefully considered and at the end the researcher was confident of the result. Some changes were experienced in the transition from paper to tape, but these were to be expected and they did not change the conceptual framework of the program. Chapter Six, to follow, details the test procedures conducted to verify the efficacy of the theoretical propositions outlined to this point.

Notes to Chapter 5 Part I

[1]Many of the changes were caused mainly by the natural limitations of the researcher's visualization. Several things looked like they could not possibly miss when they appeared on paper. However, the reality of the studio can only be experienced "in the flesh". This particular point is probably what makes formative research indispensable for instructional programmers. The research literature gives little or no indication of the difficulties that may be encountered as one tries to put a number of theoretical thoughts on tape.

[2]This is ideally the way it should work - the children are shown the program, with the words and their usage prominent, and then afterwards they are asked to use the words in the way they were outlined in the program. This opportunity was not available in the testing constraints of this research.

[3]The researcher tried to involve them by telling them to relax and have fun watching the show in hopes they would exhibit some overt behaviour. Some did; most did not.

[4]See Appendices 1 and 2 of this thesis.

[5]In the original script proposal submitted in December, 1981, there were provisions made for graphics of the words used in sentences. However, they were excluded here because it was pointed out by Media Centre personnel that they would not be effective as the children could not read.

[6]Welch and Watt (1982) make this differentiation. Static visual complexity refers to the number of objects within the visual field and also their organization. Dynamic complexity assesses activity or movement of objects on the screen.

[7]Originally the set was to consist of three overlapping oval platforms, but once in the studio it was realized that this was much too large. It was impossible to get the entire set in one shot even at its widest angle.

[8]Some children did respond, but they did not shout; the responses were quietly spoken. The responses were much louder though not prompted in the COST 40-505 research.

Notes to Chapter 5 Part II
Changes to Script

[I]This was changed to recorded calliope music because the kazoo sounded too raucous and unclear. This music gave a much better circus feeling.

[II]In the original script the words would have been keyed over video sequences. This was dropped here as being far too visually complex.

[III]The cast could not be shown all in one shot, as originally proposed, because the image lacked clarity since it was such a long shot. The quick establishing shot served the purpose of letting the audience know that there were five members in the cast.

[IV]The music was dropped because it did not work well with the live singing.

[V]It was decided that the actors would only sing the two chorus parts (at the beginning and end), because singing the whole song would have made it extremely difficult for the children to follow its message.

[VI]This was added to see if direct recognition attempts would have any overall effect.

[VII]This was to be done as a voiceover with the sentences keyed onto the screen using the character generator. It was dropped and the actor spoke the lines into the camera, since it was realized that many of the children would not be able to read the sentences anyway.

[VIII]This was at first to be a humorous bit showing Dave impatient and waiting for a bus. However, after five attempts, one realized co-ordinating the buses would not be an easy task. Also, showing the impatience might put the use of buses in a bad light given the subjective nature of the child audience.

CHAPTER 6

EVALUATION RESEARCH

Developing the Testing Methodology

Evaluation is fundamentally important if a program is to be improved and this is of course the sole purpose behind formative research. In formative research, an enormous amount of work is entailed in preparing the materials for testing, as this research project has demonstrated to this point. This is standard operating procedure and it has proved to be quite beneficial. Each step had to be thorough so that the the researcher knew exactly what needed to be assessed. By knowing everything there was to know about "The Magic 5 Workshop" he could ask questions that would produce the most information to aid in the improvement of the program.

For example, by considering the six program objectives (see Chapter Five), the researcher ascertained that questions measuring appeal (objective #1), comprehension and recall (objectives #2, #3,#6), identification (objective #4), recognition (objectives #5, #6) and attention (objective #1) would be important for this thesis research. This seemed simple and straightforward enough, but this was really only the tip of the now too infamous iceberg.

One of the major difficulties one encounters when working in the area of young children's reactions to television is the determination of the best way to ask questions of the children

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in order to get the best results. No two pieces of research literature appear to concur as to what is the most useful approach.

Some researchers advocate the viewing/post-viewing interview approach using either structured (Storm, 1977) or unstructured questioning (Wolfe, Abelman and Hexamer, 1981). Still others use participant-observation testing (Winick and Winick, 1979). Some researchers have used the picture coding system for both character and/or program choices where the children indicate their responses by circling a picture that represents their choice (Mielke and Chen, 1980; Rapaczynski, Singer and Singer, 1982). Another approach is to use the multiple-choice written-response type of test (Zuckernick, 1977). More recently, researchers have moved into the computer age with the advent of such devices as the PEAC (Program Evaluation Analysis Computer) whereby a respondent presses a key on a key pad while viewing to indicate certain reactions to program content (Nickerson, 1979).

Each of these approaches to testing appeared to adequately measure what the researchers wanted, but each was severely limited with regards to the needs of this thesis. None of the research offered a methodology that would be suitable to assess all six of the program objectives. If the thesis program was to be fully researched and evaluated, it was obvious that a number of test approaches would have to be combined to achieve the desired results. There were several important reasons for

this beyond the testing of objectives previously mentioned.

First, this thesis research is somewhat unique in the realm of formative research because it used a three-tiered test design. Usually formative research involves testing only the developing program at its most advanced stages and not earlier versions as was the case here. It was decided that just testing the program would not yield many valuable results, so the choice was made to compare the thesis program to the original COST40-505 program and a non-video setting. It was believed that this type of testing would result in more worthwhile data.[1] Thus, instead of being able to concentrate on one test instrument to measure the reaction to only one program, the researcher had to develop three instruments, all asking the same basic questions, but still relating to the unique stimuli of each different test situation.

Secondly, and in general, the research literature deals with the results of specific tests. It does not, however, state whether or not the test instrument used in each case was the best to use with the children of a specific age group, only that this or that approach was used based on a certain rationale. In conversations with the teachers involved in the testing of this thesis and further meetings with Dr. Bob Orr of the Department of Psychology of the University of Windsor and Dr. Wilf Innerd of the University's Faculty of Education, this researcher discovered some very important information. Simply put, it is that what the research literature predicts will work, and what teachers know will work as a test instrument are two vastly different things. The teachers know their students very well; they know

that their children are unique individuals who do not <u>necessarily</u> behave in the same manner as other children do simply because some research literature might predict certain behavioural responses.[2] The best any "one shot" researcher can hope to achieve is a "ghost-like" image of the child based either on his/her own sporadic observations or those of other researchers. The teachers are testing and experimenting everyday. They know the "flesh and blood" children, so their opinions must be considered <u>first</u> when developing a test. The teachers must be given a choice of several existing test approaches and asked to choose the one which they believe would be the best to use with their students. In all of this, the researcher must not lose sight of what he/she wants to test, yet he/she must be willing to compromise as much as possible given the advice of the teachers.[3]

The third reason why several different methodologies had to be utilized was due to the problem of where the viewing and testing was to be conducted. This researcher believed that if one is developing ITV for in-class use, one had to test it under the same environmental constraints that would exist for the teacher later on should he/she decide to use this particular program. This then precluded the use of an instrument such as a PEAC[4] or the segmenting of classes into groups of two or three for placement into test rooms with one-way mirrors for observation. It was then decided that the test that was to be designed had to resemble the type of test the child might encounter in the classroom. This would serve to lessen any anxiety in the

test situation and may lead to a higher response rate.

The final reason for the multiple methodology approach was the clear and present constraint of <u>time</u> placed on the testing. The School Board wanted the study completed before the end of May and scheduling was very tight. The researcher knew he had to complete the testing as quickly as possible at each school to be able to control for the students talking about the program amongst themselves and thus contaminating the results. Thus, this time problem eliminated the possibility of post-viewing interviews, which admittedly often yield the best data (Storm, 1977; Wolfe, Abelman and Hexamer, 1981). This inability to interview further presented a problem because some of the questions which were important for this thesis could not be designed in the chosen test format (i.e. questions dealing with recognition or those asking why the children did or did not like a particular character or segment of the program). Owing to the importance of these questions it was finally decided that some of the children would <u>have</u> to be interviewed. Again, due to time restraints, the decision was made to interview three children from each class.

The Pre-and Post-Test Questionnaires

Consideration of the previous four difficulties led the researcher to decide to use a picture format for both the pre- and post-test. (see Appendices 3 and 4a, 4b and 4c for examples) This decision was first prompted by a discussion with Professor Linton and further confirmed by Drs. Innerd and Orr, as well as by the teachers involved in the study. Also, this was

partially supported by research conducted by Mielke and Chen (1980).

The Pre-Test:

This test consisted of five questions, two of which were "no fail" questions, which Dr. Orr suggested be inserted to ensure that all the children in each class enjoyed at least some sense of accomplishment. The other three questions were similar in form and measured the same thing as three other questions in the Post-Test Questionnaire. The pre-test information that was similar to the post-viewing questions, was buried to guard against sensitizing the subject to the Post-Test. The "no fail" questions were, Question #1, "What is your favourite subject in school?", and #5, "What is your favourite holiday?". The rest of the Pre-Test questions were as follows:

Question #2: "From this group of ten words, draw a circle around the words that I say."

This question measured the children's pre-existing knowledge of the five "W" words. This would be matched with a corresponding comprehension question in the Post-Test.

Question #3: "Does the word transportation talk about things that happen around the house, or, does it talk about things like boats, and bicycles, and airplanes?"

This question measured the children's pre-existing understanding of the word transportation. This was also matched with a Post-Test question.

Question #4: "Does the word "When" talk about the place something happens, or, does it talk about the time something happens?"

> This question measured the children's
> comprehension of one of the "W" words,
> "When". This question was asked in the
> reverse order on the Post-Test using
> the same picture question, but asking
> about the word "Where" instead.

Each question also had an "I don't know" symbol. This was included so that the children would not feel pressured to answer questions that they really found difficult and also because this <u>certainly</u> could be a legitimate answer with children of these age and grade levels. (see "Test Procedures", this Chapter).

<u>The Post-Test</u>:

This test was extremely well served by the picture format type of question because it fulfilled both testing criteria of this thesis research: (1) It measured all but one of the six objectives of the thesis program (it could not, as stated, be used to measure recognition) and (2) it worked exceptionally well in comparing the thesis program to the other two stimuli.

Each Post-Test for each test site had a different number of questions, although fourteen of the questions were identical across all three sites. The questions per site breakdown as follows:

<u>Site #1</u>: Presented with the original COST40-505 program---26 questions. (see Appendix 4a)

<u>Site #2</u>: Presented with the Thesis Production---35 questions. (see Appendix 4b)

<u>Site #3</u>: Non-video presentation based on Thesis Production content---28 questions. (see Appendix 4c)

The differences were due to the number of stimuli that were included in each presentation. For example, the thesis program was seventeen minutes long and the prototype production was only nine minutes long, so there were more items to measure in the former program. In the non-video presentation, the researcher was presenting the content of the thesis show and some things from that program were not included. This was because the researcher was making the presentation by himself so that those things that required five actors (e.g. "The Question Song, "The Rope Game" or "The Cheer") could not be shown. This test was also shorter than the other two because it did not include any identification questions since there were no characters presented.

Every question on each test included an "I don't know" symbol for the reasons previously cited. (see "Test Procedures", this Chapter).

The following is a description of each of the questions included on the Post-Test in the order that they appeared on the test at site #1. The desired answers are underlined. The differences due to site are indicated and appear in the Appendix.

Question #1:   "When you use the "Magic 5 W's" are you asking questions, or, are you giving answers?"

This is a comprehension question measuring if the children picked up on the primary program focus.

Question #2:   "Draw an X through the box that has
the "Magic 5" words in it." (Box 3)

This is a recall/comprehension question
measuring the difference between Pre-Test
question #2 and Post-Test improvement with
regards to the five "W" words.

Question #3:   "In the story, the "Magic 5" actors tell us
that we have to use two special tools to
find out about a lot of things. Were
these two things books and pencils, or,
were they the "Magic 5 W's" and your
imaginations?"

This is a basic comprehension question.
The children must score high on this
question if the whole purpose of the
program is to be supported.

Question #4:   "The "Magic 5" actors told us when it was
a good time to use the "Magic 5 W's".
Do we use the "Magic 5 W's" when we want
to ask questions to find out about some-
thing, or, when we want to talk with our
friends?"

This is another basic comprehension ques-
tion.

Question #5:   "Does the "Magic 5 W"-"Who"-talk about the
place something happens, or, does it talk
about a person?"

This is a comprehension question measuring
the children's understanding of the word Who.

Question #6:   "Does the "Magic 5 W"-"Where"- talk about
the time, or, does it talk about the place
something happens?"

This is a comprehension question measuring
the children's understanding of the word
Where. This was to be compared to the ex-
act same picture question in the Pre-Test
which dealt with the word When (time, rather
than place).

Question #7:   "The "Magic 5" actors played a game to warm-up
their imaginations. In this game did they
pretend to play baseball, or, did they sing,
or; did they pretend to pull a rope?"

This was a simple recall question asking the children about something that the actors did in the imagination game (The actors pulled on an imaginary rope). On the test for site #2, this question was numbered 7A. It was not included on the site #3 test. On both the site #2 and #3 test an extra recall question about the imagination game "What's In The Box?", numbered 8A, is added.

Question #8: "The "Magic 5" actors showed us how to make a history story "come alive". How did they do this? Did they act out the story and pretend they were the people in the history story paddling a canoe, or, did they sit around and talk about the history story.

This was another simple recall question asking the children how the actors made the story "come alive". This was numbered 8B at sites #2 and #3. At site #2 an extra question about the history story was added and this was numbered 7B.

Question #9: "The Magic 5 Workshop" talked about a city that is very special. Is this special city Windsor, or, Detroit?"

This was another recall question prompted by the COST40-505 study where the children could not say in which city the action took place.

Question #10: "Which one of these boxes is not a part of transportation in Windsor?" (Box #2)

This is a basic comprehension question which was matched with the corresponding question on transportation in the Pre-Test.

Question #11: "Is transportation only used by Moms, Dads and Teachers, or, is it used by everyone?"

This is a basic comprehension question about transportation.

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Question #12:　"When do we use transportation, when we want to play baseball (catch), or do we use it when we go to school?

This is a basic comprehension question about transportation.

Question #12A:　"What is the most important thing that "The Magic 5 Workshop" is all about? Is it about talking to friends, or is it about asking questions and using your imagination?"

This is another basic comprehension question.

Questions #13 Through #17:　These questions are appeal questions and are obviously closely tied to the content of the test stimuli at each site. The examples here will give the reader an idea of the format of the questions at each site.
"Here are some pictures of the parts of the "Magic 5" show. Put a circle around the picture of the part that you liked. Put an "X" through the picture of the part that you did not like. If you don't feel strongly either way, don't put any marks on the paper."

Question #13:　"Did you like the part of the program where the actors were just sitting around talking?"

Question #14:　"Did you like the part where the actors pretended to pull the rope?"

Question #15:　"Did you like the part where the actors cheered?"

Question #16:　"Did you like the part where the actors pretended to be on a bus?"

Question #17:　"Did you like the parts where you saw pictures of different types of transportation in Windsor?"

Question #18:　This question uses the same lead-in as above, except that it is about the actors,"Here are some pictures of the "Magic 5" actors..."

This question design was suggested by Dr. Innerd as the best approach due to the children's short term memory. These were the identification questions. If the children liked them, there was strong identification; if they disliked them, this indicated low identification. A blank sheet was considered as no identification.

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This same format was used at site #2,
with different pictures.

Questions A to C:
These were basic appeal questions which were worded slightly differently for Site #3.

Question A:
"Did you like the program, "The Magic 5 Workshop?""

Question B:
"Would you watch it at home if it came on your television?"

Question C:
"Would you tell your friends to watch it?"

Questions D to F:
These were opinion questions regarding classroom television use. Only grades two and three answered these questions as the grade one students could not really understand the questions.

Question D:
(Lead-in stated here first)
"In these questions I want to know what you think about using television in your classroom. If you agree with what I'm going to say, put an X through the box with the smiling face in it. If you don't agree, put an X through the box with the frowning face in it. If you don't know, or, you're not sure, put an X through the "I don't know" face.

Okay, here's the first question. "Teachers bring TV to class so that we can play and not read so much." (Agree/Disagree)

Question E:
"I like to watch TV in class because I can learn more things." (Agree/Disagree)

Question F:
"I like to have TV in class because then I don't have to work so hard."

Question G:
This was used as a measure of amount of television at home.

Question G:
"With this question I want to know how much TV you watch when you are at home. If you think you watch a lot of TV at home, put an X through the picture of the big television. If you think that you only watch a little bit of television at home, put an X through the picture of the little television."

> The definition of "a lot" or "a little"
> television was explained to the children
> before they answered the questions. "A
> lot" of television viewing was described
> as watching TV in the morning before school,
> at lunch when they went home, after school
> before supper and after supper before they
> went to bed. "A little" was described as
> just sometimes, perhaps just for awhile at
> night. The teachers agreed that these
> definitions seemed adequate for the chil-
> dren's understanding.

Attention Behaviour Testing

Attention is considered to be extremely important to many researchers who have studied how children learn from television. (see "Annotated Script" in Chapter Five). There are various approaches cited, all of which seemed appropriate for measuring attention. Some observed groups of two or three children through one-way mirrors and pressed a key on a key pad attached to a computer when the child was looking at the screen and another key when the child was looking away (Lorch, Anderson and Levin, 1979; Levin and Anderson, 1976). Another researcher used a camera mounted on top of the television viewing monitor which was focused on a specific group of three or four students and recorded their behaviour while the entire class viewed the program. In this way the researcher could see exactly when the child looked at or away from the program just by playing back the tape recorded during the viewing in sync with the test program (Porter, 1979).

The most popular approach to measuring attention behaviour seems to have been the practice of studying eye movement behaviour. A light is shone on the fovea of the subject's eye while

he/she is viewing and the scanning movement of the eye is measured (Wolf , 1971; O'Bryan and Silverman, 1972; 1973; Briggs, 1973; Mock, 1976; O'Bryan, 1976).

Again, as with the Pre-and Post-Test Questionnaire development, none of these approaches was readily adaptable to this thesis study. One research project was discovered that did offer a means of measuring general attention behaviour at the classroom level.

This research reported on the evaluation of "Math Patrol" conducted by TV Ontario in four Toronto elementary school classrooms (Zuckernick, 1977). Their approach offered the opportunity for a researcher to observe up to three children simultaneously while the children were viewing a test program of "Math Patrol". There was also provision in this test instrument for the observation of overt physical behaviour which the children might exhibit in response to the program. This researcher adapted this procedure and by enlisting two assistants, a total on nine students were observed in each class at test sites #1 and #2. Examples of the coding sheets and response key are included in the Appendix and are self explanatory (see Appendices 5a and 5b). There was a different coding sheet created for each site since the programs differed in length: The coding for site #1 was divided into nine program segments, and site #2 was divided into fifteen program segments. These segment numbers referred to natural breaks in each program as decided by the researcher. (see "Testing Procedures", this Chapter, for full description of observation process). No observation was

conducted for attention at site #3 as it was believed that the researcher's personality and style of teaching would grossly affect the children's behaviour in either a positive or negative fashion.

Post-Viewing Interviews

As was stated earlier, this testing was of paramount importance. After rejecting several approaches, the researcher finally settled on a structured interview approach which measured several variables:

(1) Appeal of the program, or presentation content.
(2) Amount of TV viewed at home and preferences.
(3) Opinions about ITV use.
(4) Appeal of characters, looking at both identification and recognition.
(5) Appeal of program segments, also measuring recognition.

The test questions are self-explanatory and are included in the Appendix. (see Appendix 6). The questions were adapted for use at site #3 as follows: Question #1 asked how they liked to "hear" about the "Magic 5 W's". Questions #2 and #3 remained the same. Question #4 was dropped and for question #5, the children were asked which of the different "things" (= segments) that the researcher talked about they liked or disliked and why.

Program Rating Sheets

These rating sheets were also adapted from the research on "Math Patrol" (Zuckernick, 1977). The teachers at sites #1 and #2 were asked to rate the respective programs, segment

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by segment, as to the entertainment value of each, while view-
ing the program. These rating sheets are again self-explanatory
and are included in the Appendix. (see Appendix 7).

Teacher's Post-Viewing Questionnaire

The researcher designed these questionnaires based on the
results of the COST40-505 project. A similar questionnaire was
distributed to the teachers at that time and their responses
proved invaluable. (see Appendix 2). The questionnaires de-
veloped for this study have been expanded to include opinion
questions on attitudes about ITV use in the classroom, based
on materials outlined in Chapter 3 (see especially pages 44 to
46 inclusive). The questionnaires for site #1 and #2 were the
same, but the one produced for site #3 had to be changed slight-
ly due to the fact that it was the non-video site. (see Appendi-
ces 8a and 8b).

The Study Design

Preliminary Groundwork For Testing

The subjects for this research were children in grades
one, two and three from three schools of the Windsor Separate
School System. Mr. Don Diubaldo, Superintendent of Schools
and the individual in charge of in-school research, was first
contacted in January of 1982. The researcher was then given
an outline for a research proposal which is required by the
School Board in order that research can be conducted. This pro-
posal was completed and returned on Friday, April 23, 1982.
This proposal was passed and the schools that were to take part

in the project were contacted.

Selection of Schools

The schools were chosen with the help of Mr. Diubaldo. The researcher, using the list of Separate Schools in the Yellow Pages of the Windsor Telephone Directory, along with numbers generated from a random number table, randomly selected eighteen schools and placed them on two lists of nine schools each. These schools were listed in groups of three. Mr. Diubaldo was instructed to contact the schools in the order in which they appeared on the list, starting with the A list first. The schools had been placed on the list in the order that they would be tested. The first school in each group of three was to be the Test Group which would receive the COST40-505 program. The second school would view the Thesis Production and the third school would be presented with the program content of the Thesis Production minus the video. The numbers of schools on these random lists had to be large because Mr. Diubaldo could not arbitrarily decide which schools would be involved in the study. Board regulations stipulated that he had to contact the principal of each school in order to find out if they were interested in taking part in the study. As it turned out, the principals of the first three schools contacted on the first list agreed to take part. Those schools were, Immaculate Conception School, site #1 (Test Group), Sacred Heart School, site #2 (Thesis Group) and St. Jude School, site #3 (Non-video School). Testing dates were established as May 17 for site #1, May 18 for site #2,

and May 19 for site #3. At each site the children in grades
one through three were directed to bring home a parent release/
permission form which stated that the children could take part
in the study. When these were returned it turned out that a
total of one hundred and eighty-eight children were able to
take part in the study.

Training of Assistants

This researcher was aided in the testing by two female
assistants. One was an undergraduate student in English and
the other was a graduate student in Communication Studies.
These students were involved in helping the researcher distri-
bute and collect the test questionnaires at each site. Also,
each of them observed three children per class at the two
video schools. The researcher met with them prior to going to
the schools at which time they viewed the two test programs
and the researcher explained how the Attention Observation sheets
were to be used. The researcher also discussed the Post View-
ing Interview with each of them and in the absence of any chil-
dren to practice with, he had to trust his own intuition as to
whether they would be competent in the interview situation. He
was sufficiently satisfied that they would be able to conduct
the interviews with no difficulty.

Testing Procedures

On the designated test days, the researcher brought a 19"
colour television monitor and a video cassette player to the
two video schools. At St. Jude School, the researcher prepared

flash cards and overhead transparencies to aid in the presentation.

Each grade viewed the television program or listened to the presentation in its own classroom so that they would be as comfortable as possible. The teachers were present but relatively uninvolved throughout.[4] The researcher and his assistants worked with each class for approximately sixty minutes.[5]

The researcher gave a very brief introduction to the classes, explaining who he and his assistants were and what was going to happen. The children were not told that the researcher was the producer of the programs (or the originator of the presented information) in an attempt to control for the positive response bias as suggested by Mielke and Chen (1980).

The Pre-Test:

The tests were distributed by the researcher and his assistants with the direction that this was "just a little question sheet and not a test", so that the researcher could find out some of the children's ideas. Each child was asked his/her age as the test paper was handed-out and this along with the sex of the child was recorded on the back of the test paper.

The researcher verbally led the children through the Pre-Test item by item. The questions were numbered with a circle around each number in red ink for easy identification by the students in response to the researcher's instructions. This numbering was done to ensure that all children answered the same question at the same time. This can be a particular

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problem if not accounted for when testing children of these age levels.[6] During the testing, the assistants and the teacher periodically scanned the group to see if all the children were understanding and following the directions to move from question to question.

Each question had to be explained as to just what the pictures were asking and how the "I don't know" symbol was to be used.[7] The researcher explained each question twice, each time placing particular emphasis on the fact that it was "all right" to use the "I don't know" symbol.[8] After the question was explained for the second time, if the researcher sensed that there was still a problem understanding he asked, "Did everyone understand the question?", "Would anyone like me to repeat it?". If there were still difficulties, the question was repeated a third time. If problems in understanding persisted, the assistant(s) would try to explain the question quietly to the respondent(s) or the teacher would intervene if absolutely necessary.

A brief time period was allotted, approximately thirty seconds for each response, after which the the researcher asked, "Is everyone finished with that question?" Most classes responded in unison with a resounding "Yes!".[9] Upon receiving this answer, the researcher instructed the students to move on to the next question.

The Pre-Test took between five to seven minutes to complete, depending on the grade level.[10]

Viewing the Programs/Hearing the Presentation:

After the Pre-Tests were completed, they were collected by the assistants. At the video schools, while this collecting was being done, the researcher and the teacher chose the nine students to be observed for attention behaviour. This was done by means of a list of random numbers supplied by the researcher and by using the teacher's class list. Once chosen, these children were moved to seats in the class that would readily facilitate the observation.[11] The class was then told that they were going to watch a television show after which they were going to be asked some more questions that were like the ones they had just finished. They were then instructed to sit back and have fun watching the TV. The teachers filled out their rating sheets during the viewing of the program. The researcher and his assistants sat off to the side to observe the designated students unobtrusively during the program.

At the non-video school, the children were told by the researcher that he wanted to talk to them "about something very special called the "Magic 5 W's". The researcher then gave the presentation which lasted approximately fifteen minutes,

The Post-Test:

In each of the three schools the post-testing followed basically the same procedures as those outlined for the Pre-Test. There was, however, one major difference. Due to the length of the Post-Test, the researcher decided to use overhead transparencies of each page of the test to further ensure that the

children all answered the same question at the same time. Thus, along with the verbal direction given by the researcher, the children saw a projected representation of each question and could match this with the question on their own test sheet. This proved highly successful.

As the Post-Test was quite lengthy, the researcher had to be conscious of being extremely positive in his approach to the questions. Comments such as, "Very good class, you are really doing very well" and "I know this is a lot of work, but we're almost finished now", helped immensely in keeping the students' concentration centred on the test items. As well, it was necessary to reinforce in the children's minds that their teachers would not be seeing the results of the tests so that they need not worry about their responses. This was especially true for the opinion questions at the end of the test which could make the children feel a little timid if they thought that the teachers might not like what they thought about ITV use (i.e. having it in class means a free period).

The post-testing took between twenty to thirty minutes to complete, again depending on the grade level of the respondents.

Upon completion of the testing, the children were thanked for their "very special help" and the tests were collected by the researcher and his assistants.

Post-Viewing Interviews:

The Post-Viewing Interviews were conducted either in the resource centre or the teacher's staff room, depending upon which

was available. At the two video schools, the children to be interviewed were chosen from among the nine who were observed during the program. At the Non-Video school the students were chosen by the teacher. Each of the three children was interviewed simultaneously by either the researcher or one of his assistants. The interviewer first explained how the tape recorder was going to be used in the interview. The recorder was then placed in the record mode and the student was asked to state his/her name, grade, and the school he/she attended. This information served two purposes.

First, it was important demographic material. Second, when it was played back, before the interview began, the children were fascinated to hear voices and this helped to put them at ease.[12]

The interviews were short, following the prescribed question format devised by the researcher (see Appendix 6). Each of the interviews lasted between four to six minutes, depending on the willingness of the students to respond to the questions. For example, if any of the children seemed particularly keen to elaborate on any given response, they were encouraged to do so. The interviewers did not, however, probe the children for answers beyond what they wanted to give. Again, the children were told that it was okay to say "I don't know" to any question about which they had no opinion.

When the interview was completed, the children were thanked for being so helpful and returned to their classroom.

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Follow-up and De-briefing:

At Immaculate Conception School, no time was available for the researcher to speak to the classes after the testing. Also, because it was so late in the school year, it was not possible to go back to the school at a later date.

At Sacred Heart School, the researcher was able to speak at some length with the grade two students. There was, however, only a very limited time available to talk to the grade one and three students. Again, no other time could be scheduled to go back to talk with these children.

At St. Jude School, since there were only two classes (mixed grade one and two in one class, and grade two and three in the other), the researcher had a great deal of time to work with the children. After both the morning and afternoon sessions, he played imagination games with the children ("What's In The Box", "Statues") based in part on materials mentioned in the presentation.

The principals, teachers and Mr. Diubaldo were sent cards thanking them for their co-operation in the study.

EVALUATION RESEARCH PART II
Hypotheses Used in the Comparative Testing

With any formative research there comes a point where one has to make a decision as to what can and cannot be tested. This is particularly true of this research. Chapter Four

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alone <u>offered</u> enough information to make for a valuable study. However, this researcher also had to consider the information in Chapters Two, Three and Five as well.

Based on the above four chapters, the following independent and dependent variables have been chosen around which are formed the twenty-seven hypotheses used in the comparative study between the Thesis Production and the other two stimuli.

<u>Independent Variables</u>:

<u>Age</u>: This is an obvious choice given the cognitive development research in Chapter Four. Also, the target audience would more than likely manifest age differences more than anything else. Therefore, this was considered the most important independent variable.

<u>Grade</u>: This is closely tied to age. The target audience was originally chosen by grade rather than age. The researcher's experiences in the COST40-505 study (and previous to that, in his theatre experiences) were rooted in an understanding and conception of what a child in grade one, two or three looked and acted like. It was the belief of this researcher that the school environment, beyond cognitive development level, would have a noticeable affect on young children's opinions and preferences regarding this research.

<u>Sex</u>: This variable was not considered to be as important as the other two as children of these age and grade levels do not appear to express wide ranges in program comprehension and preference due to gender. This variable was seen as important to whether or not the child enjoyed the show. It was not expected that it would affect comprehension or recall.

<u>Site</u>: Since all the important variables, age, grade and sex, seemed controlled for, this was not considered as a necessary independent variable in the researcher's early conceptualization. It only became important when the three-tiered test design was developed. For obvious reseasons, this

researcher believed that those children at Site #2 would benefit the most from this testing because they would be viewing the improved version of "The Magic 5 Workshop". Where the school was located in the city and the Socio-economic status and home environment of the students at each school was not considered to be relevant to this research.

The following dependent variables have been chosen based on the information provided in Chapters Two through Five inclusive. These variables have been explicitly measured in the test procedures.

Attention: This would have an effect on both comprehension and overall appeal of the video presentation.

Comprehension: This was seen as a fundamental pre-requisite to learning.

Identification: This was of course considered important because it was part of the basic idea behind the development of "The Magic 5 Workshop", both in the prototype and in the improved version. The researcher especially designed the thesis program in such a way as to specifically control for this variable.

Appeal: This was extremely important because if the children did not like the program they would not learn from it.

Recognition: This variable was to take the place of identification as being important in the thesis program.

Based on this discussion, the following hypotheses are put forth for analysis. Each dependent variable is considered in reference to each of the four independent variables. These hypotheses are based on information presented in Chapters Four and Five. In each case an explanatory note, signified by a Roman numeral, will provide the rational for the hypothesis and will appear in the notes section at the end of this chapter.

Attention:
(for Immaculate
Conception and
Sacred Heart
Schools only)

Hypothesis #1 [I]

Age:
Younger children will pay more attention to the television programs than will older children.[13]

Hypothesis #2[II]

Grade:

In general, grade one students will pay most attention, with grade two the next highest and grade three the least attention.

Hypothesis #3a III

Sex:

Females will pay more attention than males to both programs.

Hypothesis #3b IV

Males will pay more attention to the prototype program and females will pay more attention to the Thesis Production.

Hypothesis #4 V

Site:

In general, the attention levels will be higher for the Thesis Production than they will be for the COST40-505 program.

Comprehension and Recall:

Hypothesis #5a VI

Age:

In general, for the comprehension questions, the older students shall score significantly higher than the younger students.

Hypothesis #5b VII

There will be few age related differences with regard to the recall questions.

Hypothesis #6a VIII

Grade:

In general, the grade three students will exhibit the highest levels of comprehension, with grade two students only slightly lower. The grade one students will show significantly lower comprehension levels.

Hypothesis #6b IX

There will be few grade related differences with regard to recall questions.

Hypothesis #7 X

Sex:

There will be no significant differences by sex for comprehension or recall.

Hypothesis #8a XI

Site:

Those students from Sacred Heart School (site #2) will show the greatest increase in improvement from the Pre-Test to the Post-Test on the three corresponding questions.

Hypothesis #8b XII

In general, the comprehension levels will be higher at Sacred Heart School, St. Jude will be the next highest and Immaculate Conception will show the lowest levels.

Identification
(for Immaculate Conception and Sacred Heart Schools only)

Hypothesis #9 XIII

Age:

If identification takes place, older children will most often identify with program characters.

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Hypothesis #10 XIV

Grade:

If identification takes place, grade three students will most often identify with program characters and grade one and two students will not.

Hypothesis #11 XV

Sex:

If identification takes place, females will most often identify with program characters in the Thesis Production and males will most often identify with program characters in the COST40-505 program.

Hypothesis #12 XVI

Site:

If identification takes place, more children will identify with the characters in the COST40-505 program than with the characters in the Thesis Production.

Appeal:

Hypothesis #13a XVII

Age:

Younger children will indicate that they enjoyed more segments of the program (presentation) than did the older children.

XVIII
Hypothesis #13b

All age groups will indicate that they enjoyed the immagination sequences and the transportation sequences.

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Hypothesis #14 XIX

Grade:

Grade one students will say they enjoyed the most segments of the programs (presentation), next will be the grade two students and the the grade three students will enjoy the fewest number of segments.

Hypothesis #15a XX

Sex:

Females will say that they have enjoyed more segments than males overall.

Hypothesis #15b XXI

Females will say that they have enjoyed more segments of the Thesis Production than will males. and males will say they enjoyed more segments of the COST40-505 production.

Hypothesis #16 XXII

Site:

In general, a greater percentage of children at Sacred Heart School will say they enjoyed the program they saw more than the children at Immaculate Conception will say they enjoyed the program they saw.

Recognition:
(for Immaculate
Conception and
Sacred Heart School
only)

Hypothesis #17a XXIII

Age:

Younger children will most often indicate that they have recognized at least one character as being like someone they know and older children will not indicate that they have recognized any characters.

Hypothesis 17b XXIV

Children of all age groups will
indicate that they enjoyed the
transportation sequences because
they recognized the modes as be-
ing something they could see in
Windsor.

Hypothesis #18 XXV

Grade:

Grade one and two students will
indicate recognition and grade
three students will not.

Hypothesis #19 XXVI

Sex:

Both males and females will equal-
ly indicate that they recognize
at least one character as being
like someone they know in either
program.

Hypothesis #20 XXVII

Site:

Children at Sacred Heart School
will experience more recogni-
tion of characters that will
students at Immaculate Conception
School.

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Notes to Chapter 6

[1] This was probably the result of this type of research being new to the department. Production Research appears to be an accepted practice in many other circles. The testing of the program is only one small part of the much larger creation. Fortunately, the research did not suffer as a result on this three-tiered design.

[2] Clearly, the teachers state that the children are extremely unique and that what might work well for some children will not work well for others. For example, some children in grade one may be able to understand simple printed questions, while some children in grade two might be stumped by the same questions. As the teachers put it (more or less), the researchers need to come down from the ivory towers and work with the children on a daily basis, if they are going to really understand them.

[3] The teachers at Immaculate Conception and Sacred Heart were especially helpful with the test design. They made simple suggestions and the researcher believed that their advice was invaluable. At no time did the researcher feel that what he wanted to test was in jeopardy.

[4] The teachers would intervene if there seemed to be any gross behaviour problem and this almost never happened. As well, they would help if there was a student in the class who was having particular difficulty understanding a question. Obviously, the teachers knew who the slow students might be and watched for them accordingly.

[5] The grade one students at each school were invariably slower than the other grades. This was a considerable hurdle at Immaculate Conception as they were the very first test group and the researcher was somewhat nervous, which did not serve to expedite matters. Usually the grade two and three students had very little difficulty during the testing.

[6] This was pointed out by Dr. Murray as being one of the major problems of testing children at this age, especially about something like television which the children see and cannot refer back to immediately like a book.

[7] For the grade one and two students, this "I don't know" symbol was explained as a "Mr. I don't know" to add a sense of humour to it. By calling it by this name and explaining that it was perfectly "all right" to make this choice, the children responded by readily choosing this symbol whenever they felt they did not know the answer.

[8]Again, there appeared to be a certain stigma of failure attached to choosing this symbol, especially on the grade two and three level. This really brought home the concept of adult expectations that Lesser (1976) talks about in Chapter Four. The children want to score highly and if they do not understand something, they get an anguished look on their faces. The researcher's constant reinforcement of the validity of the "I don't know" symbol may have helped to lessen some of their frustrations.

[9]Any problems with understanding that persisted after this "Yes" response were solved by the assistants or the teacher. If the researcher had waited any longer for one or possibly two students, he risked having the class get restless, especially with the Post-Test.

[10]See note #5.

[11]Since the classes were generally set up in a square seating formation, these students were usually located in the front or back corners, left or right, whichever made it easiest for the researcher and his assistants to observe.

[12]This procedure of taping voices and playing them back is not mentioned in the research; perhaps it is just common sense. If not, the researcher believes it is an extremely important point to consider when interviewing young children. The situation is alien to them, and only the most confident of youngsters will be at ease naturally. Anything the researcher can do to help the respondent to relax is important and necessary.

[13]Younger children are considered to be children six or seven years of age and in grade one; older children are eight and nine years of age and are in grade three.

Notes For Hypotheses

I and II<sub>The type of humour, the use of imagination games,
and the overall style of this program, leads one to believe
that this program will be most interesting to younger children in
grade one and two. Also, the research supports this assumption
(Noble, 1975; Feilitzen and Linne', 1975; Winick and Winick, 1979;
Lorch, Anderson and Levin, 1979).

III<sub>Winick and Winick (1979) point out that girls will enjoy
both male and female characters on the screen, whereas boys pre-
fer male characters almost exclusively. Both programs have
either more males or more females so that there is a better
chance that the females will enjoy both programs simply because
they can enjoy both types of characters.

IV<sub>The prototype program has three male characters and the
Thesis Production has three female characters. Each gender
will choose the program that has the greatest number of their
favourite character in it to give their attention to.

V<sub>The researcher believes this will happen because there is
much more interesting content in the Thesis Production.

VI and VIII<sub>All of the cognitive development research listed
in Chapter 4 indicates that age (grade) will be a significant
factor with regard to comprehension. The older, concrete-opera-
tional children will understand this program better than will
the younger, pre-operational children.

VII and IX<sub>The research does not appear to state that recall
is directly related to cognitive development, therefore since
the information being presented is quite clear and <u>relatively</u>
easy to understand, it should not be any easier for the older
children to recall program content than it will be for the
younger children.

X<sub>Sex is not seen as a determining factor in cognitive abili-
ties. Regardless of gender, the children are developing their
mental skills at relatively the same pace.

XI and XII<sub>This is the basis for this research design. Since
the attempt has been made to improve the program over the proto-
type version of "The Magic 5 Workshop" and this researcher is
stating that his program design is a beneficial teaching aid, it
follows that Sacred Heart School should experience the greatest
improvement and highest comprehension scores, as they are re-
ceiving the better instruction.

XIII and XIV According to Noble (1975), older children experience identification and younger children experience mostly recognition.

XV Again, this is based on the distribution of male and female characters across the two programs.

XVI The Thesis Program has been deliberately designed with characters that are probably too neutral for the children to identify with them. The COST40-505 program characters are far more animated and are probably more attractive than those characters in the thesis show.

XVII This refers back to the first note of this section where the point was raised that these programs are such that younger children will find them most interesting and therefore, more appealing.

XVIII This is based on the research conducted in COST40-505 in May of 1980. In that research these sequences were among the most popular in the program.

XIX
Again, this hypothesis is closely related to the interest and enjoyment ideas put forth in note I and II of this section.

XX and XXI Again, this is based primarily on the distribution of male and female characters across the two programs.

XXII A great deal of work has gone into improving the Thesis Production so that obviously this researcher believes that their is much more for the children to enjoy in this show. To mention just a few things, the two imagination games, lots or colour and live video instead of slides (used in the prototype) for the transportation sequences, should enhance this program's appeal a great deal.

XXIII to XXVII These hypotheses are based on the assumptions of recognition put forth by Noble (1975) and the idea that familiar content is important in children's television programming as stated by Collins (1979) and Porter (1979).

CHAPTER 7

RESULTS

<u>Demographics</u>

One hundred and eighty-eight subjects from three schools took part in this study, ninety-five of whom were male and ninety-three female. Sixty-five students took part at Immaculate Conception School, seventy-six students took part at Sacred Heart School and forty-eight students took part at St. Jude School. The schools break down by age, grade and sex as follows:

Site #1:

<u>Immaculate Conception School</u>   26 male 38 female

    <u>Grade One:</u> N = 26   19 were six years old
                                     7 were seven years old

    <u>Grade Two:</u> N = 14   5 were seven years old
                                       9 were eight years old

    <u>Grade Three:</u> N = 24   14 were eight years old
                                    10 were nine years old

Site #2:

<u>Sacred Heart School</u>   40 male 36 female

    <u>Grade One:</u> N = 25   16 were six years old
                                  9 were seven years old

    <u>Grade Two:</u> N = 27   19 were seven years old
                                  8 were eight years old

    <u>Grade Three:</u> N = 24   19 were eight years old
                                  5 were nine years old

Site #3:   29 male 19 female

<u>St. Jude School</u>

    <u>Grade One:</u> N = 14   11 were six years old
                                  3 were seven years old
    <u>Grade Two:</u> N = 17   10 were seven years old
                                  7 were eight years old
    <u>Grade Three:</u> N = 17   12 were eight years old
                                  5 were nine years old

Results of the Pre-Test

An Analysis of Variance (ANOVA) and a Muliple Classification Analysis (MCA) were used to test for differences between the test groups.

For Question Two which tested the students' pre-existing knowledge of the five "W" words, Sex (DF=8, F=7.525, Significance=0.014) and Site (DF=2, F=7.658, Significance=0.001) were the significant independent variables indicating that there were between-group differences, with Site having the strongest effect. The Multiple Classification Analysis indicated that females scored higher than males. Sacred Heart School had the lowest score, with Immaculate Conception the next lowest, and St. Jude the highest (see Table 1, Appendix).

The results of the third question which measured the children's knowledge of the word transportation showed that Age (DF=3, F=2.631, Significance=0.052) Site (DF=2, F=13.259, Significance=0.000) and Grade (DF=2, F=3.810, Significance=0.024) again indicated strong between-group differences, with Site being the dominant independent variable. The six-year-old students scored the lowest, and the nine-year-old students scored the highest, as would be expected. The results coincide with grade results which indicate that grade one students were the lowest (also all six-year-olds were in grade one) and grade three students were the highest on this question (again, all nine-year-old children were in grade three). St. Jude again scored the highest, but this time Immaculate Conception was the lowest (see Table 2).

With the fourth question which measured the children's understanding of the "W" word "When", one finds that Site is the only significant variable (DF=2, F=18.573, Significance=0.000). The MCA shows an unexpected break in a pattern where Sacred Heart School scored the highest, and St. Jude School scored the lowest (see Table 3).

Interpretation of Results

When one conducts a pre-test of this sort, one is desperately hoping that there will be no significant independent variables so that the test groups can be considered to be the same to begin with. However, this is not the case here, as several of the variables are highly significant. It is not surprising that sex, age and grade were found to be significant at different points because the nature of the sample was extremely broad in the first place. The teachers told this researcher that each class of children was unique, and these between-group differences seem to bear this out.

The most surprising fact is that the test site had such a drastic effect on the results of this test. This researcher did not believe this was going to be a factor, so he did not try to control for this when the schools were chosen. It was not until after the researcher actually began testing that he was made aware of the socio-economic backgrounds of each school. It seems that Immaculate Conception is considered a middle class school, St. Jude is in an affluent area, and Sacred Heart is in the inner city. Clearly, there were strong differences between the various test

sites, and this researcher can only attribute this to SES effects, although other incidental variables could be intervening as well (e.g. individual student interactions, quality of the teacher in each class, general intelligence level of each class).

There will probably be a tendency on the part of the reader to dismiss any significant changes that might exist in the three corresponding questions in the Post-Test by saying that "there were group differences to begin with, so how can one attribute any changes to the test stimuli?" The only argument this researcher can make to that is, if any changes that take place are consistent with the between-group differences, then some intervention must have caused those changes to take place. This means that if Sacred Heart scored considerably higher on the Post-Test and there was not much change at St. Jude School (who already scored quite high on the Pre-Test) then the change could be attributed to the fact that the students at Sacred Heart saw the thesis program and the students at St. Jude did not.

It must be remembered that the schools were randomly selected, even if the children were not randomly assigned to test groups. The Pre-Test was conducted more to give the researcher a base measure of the test subjects' pre-existing knowledge of the program content, and it accomplished that. This researcher accepted the external validity problem that was inherent in testing whole classes in this manner, but as Dr. Orr says, this was something that the researcher has to take for granted if he/she

insists on proceeding with this type of test methodology.

Results of the Hypotheses

Attention Behaviour:

Figures 3 through 6 report the findings of the attention observation conducted while the children at the two video schools were viewing the programs.

Figure 3 and Figure 5 indicate that the younger, grade one students were consistently lower in their attention scores than either the grade two or three students, with grade two students actually exhibiting the highest attention across both programs. These results indicate that Hypotheses #1 and #2 were partially supported.

Figures 4 and 6 do not indicate that females gave any more consistent attention overall to the programs than males, so Hypothesis 3a was not supported. However, Figure 4 does show that males did attend more to the COST40-505 program than did females, and Figure 6 indicates that females gave more attention to the Thesis Production: therefore, Hypothesis #3b was supported.

Hypothesis #4 was not supported as Figure 3 shows that the overall attention levels for the prototype program were high throughout, and Figure 5 clearly indicates that, while many of the segments of the thesis program were highly attended, some segments reached quite low attention levels.

Comprehension and Recall:

Analysis of Variance, MCA and Contingency Tables were used to test the following hypotheses.

ATTENTION LEVELS FOR SITE #1 BY GRADE

COMPOSITE _____   GRADE TWO __ __.__ __.__   0 - NO ATTENTION

GRADE ONE __ __ __ __ __ __   GRADE THREE ....   1 - ATTENTION

2 - CLOSE ATTENTION

Fig. 3

181.
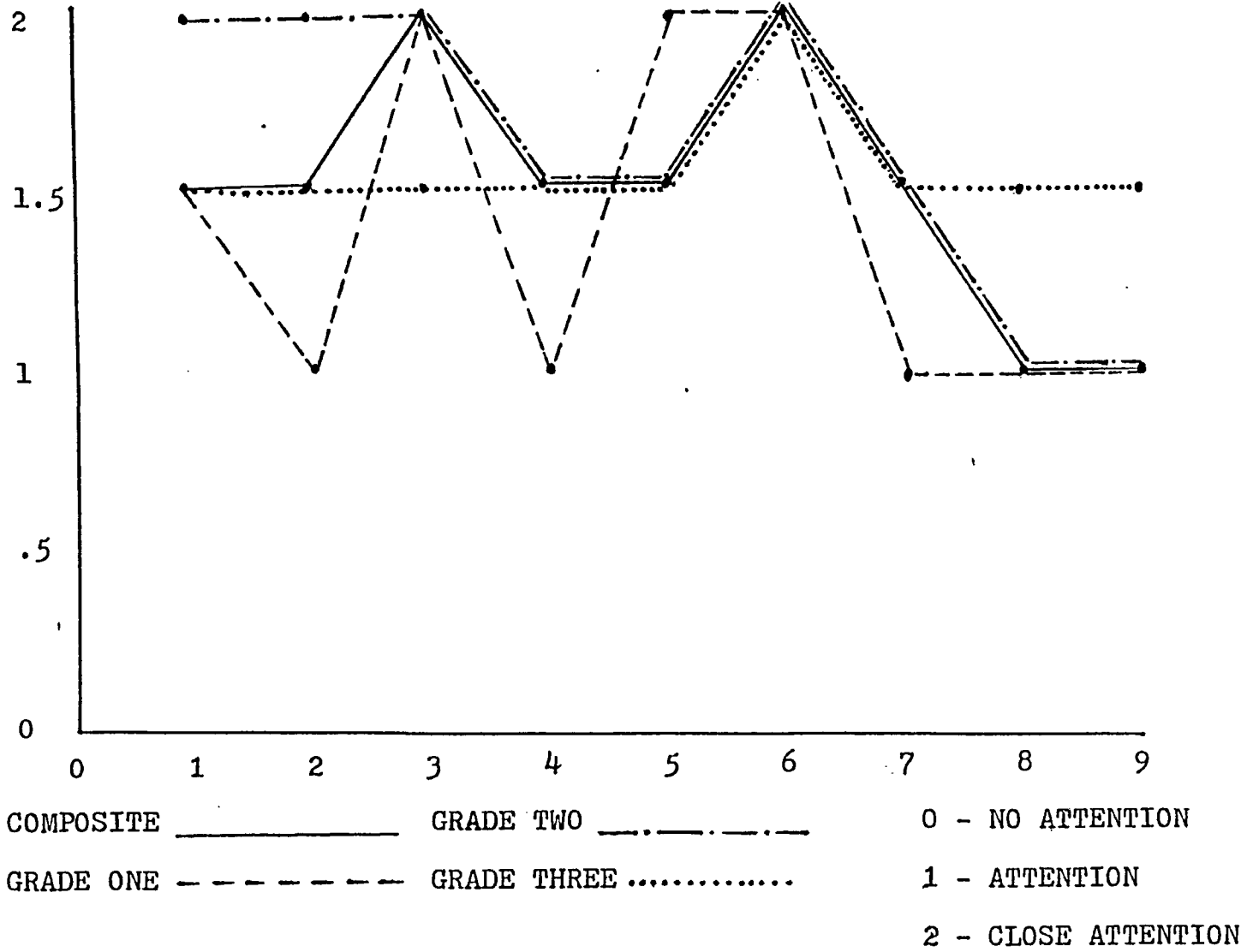
ATTENTION LEVELS FOR SITE #1 BY SEX

Fig. 4

182.

COMPOSITE _____

FEMALES — — — — — —

MALES —·—·—·—·—·

0 - NO ATTENTION

1 - ATTENTION

2 - CLOSE ATTENTION

ATTENTION LEVELS FOR SITE #2 BY GRADE

Fig. 5

183.

COMPOSITE _____   GRADE TWO _._._._._._   0 - NO ATTENTION

GRADE ONE _ _ _ _ _ _ _   GRADE THREE ....   1 - ATTENTION

2 - CLOSE ATTENTION
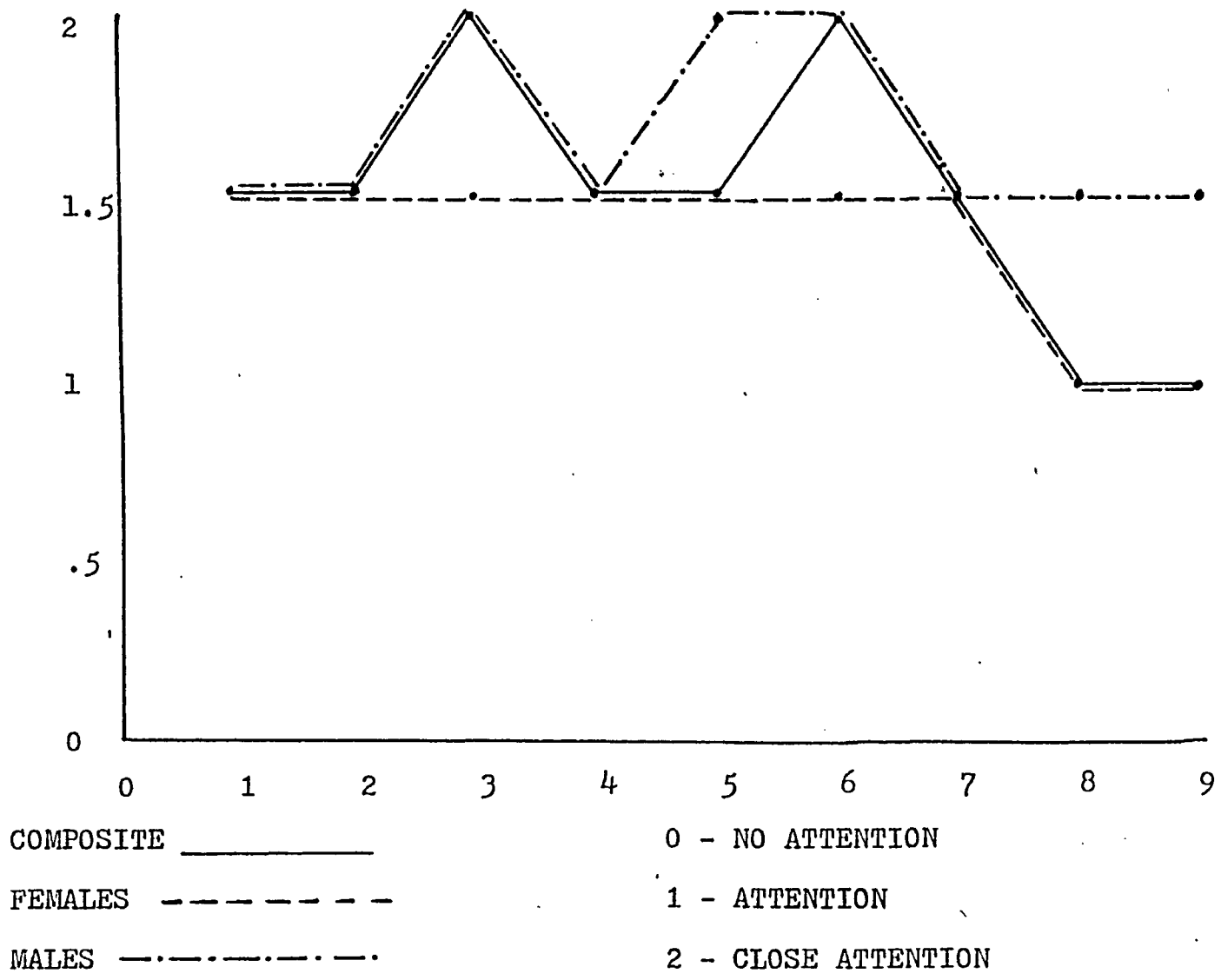
ATTENTION LEVELS FOR SITE #2 BY SEX

Fig. 6

184.

COMPOSITE _____   0 - NO ATTENTION

FEMALES — — — — — — —   1-- ATTENTION

MALES —·—·—·—·—·—·   2 - CLOSE ATTENTION

On the Post-Test, questions #1 to #6 and questions #10 to #12a were comprehension questions. These were scored on a three point interval scale where the wrong answer equalled one or low comprehension, the correct answer was equal to three or high comprehension, and an "I don't know" choice was coded as a two or undecided. Hypothesis #5a, predicting that older students would show stronger comprehension overall was only partially supported by the ANOVA procedure. Some questions were significant [Question #2, DF=3, F=3.210, Sign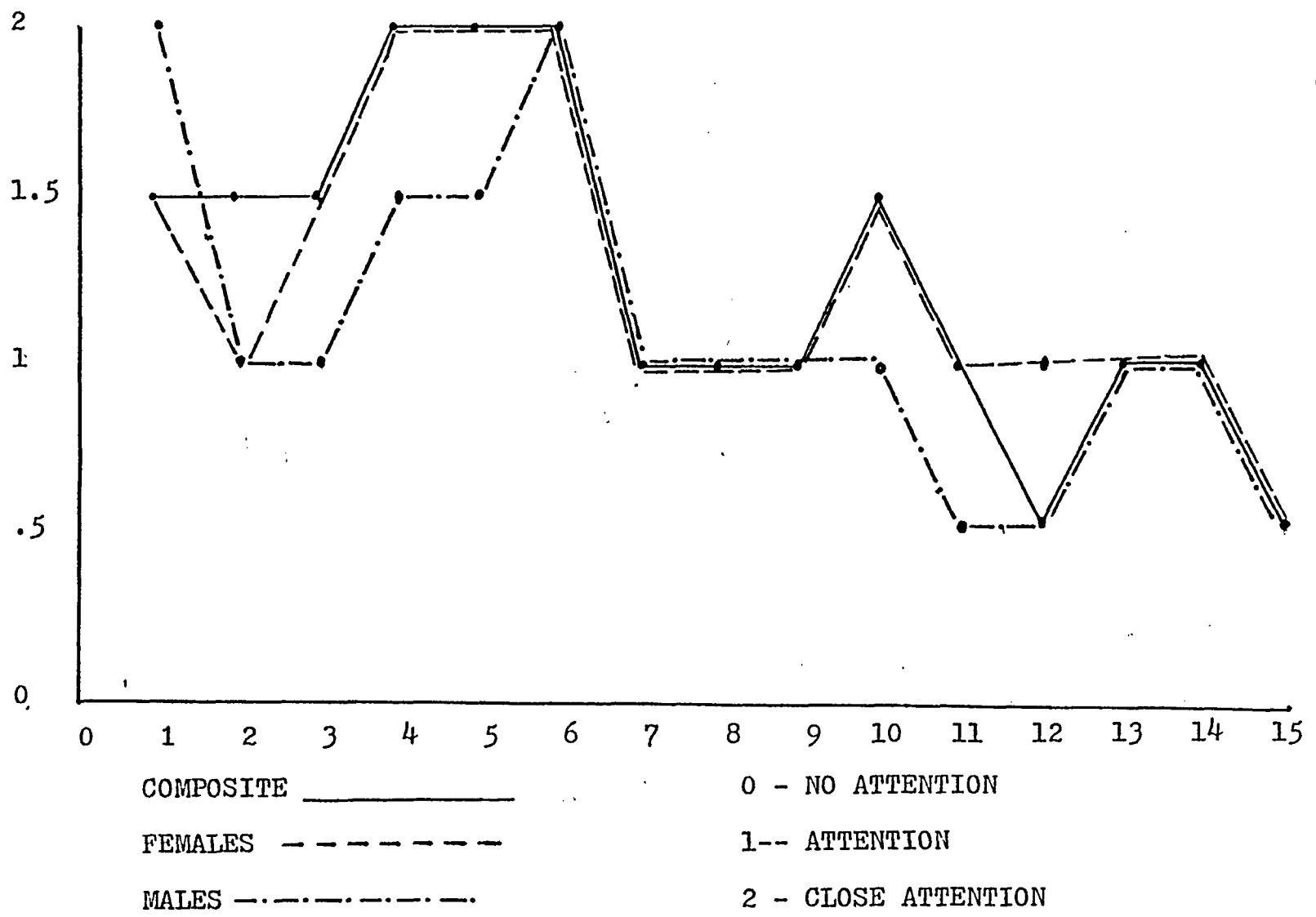ificance=0.024, (see Table 4); Question #4, DF=3, F=3.914, Significance=0.010, (see Table 5); Question #11, DF=3, F=8.632, Significance=0.000; (see Table 6); Question #12, DF=3, F=14.354, Significance=0.000, (see Table 7)] while others were not [Question #1, DF=3, F=0.874, Significance=0.456, (see Table 8); Question #3, DF=3, F=0.511, Significance=0.675, (see Table 9); Question #5, DF=3, F=0.378, Significance=0.0769, (see Table 10); Question #12a, DF=3, F=0.606, Significance=0.612, (see Table 11)].

Hypothesis #5b, which predicted there would be few age related differences with regard to recall questions, was supported. Questions #7, #7b, #8, #7a, and #9 are recall questions on the Post-Test and they are all not significant, indicating that Age has no effect on the amount of recall for either program [Question #7, Chi Square=6.06772, DF=6, Significance=0.4156, (see Table 12); Question #7b, Chi Square=5.3565, DF=3, Significance=0.4987, (see Table 13); Question #8, DF=3, F=0.257, Significance=0.856, (see Table 14); Question #7a, DF=3, F=0.125, Significance=0.945, (see Table 15); Question #9, Chi Square=6.33852, DF=6, Significance=0.3864, (see Table 16)].

Hypothesis #6a predicting that higher grade children will have higher comprehension levels overall was not supported. The same tables are used for this hypothesis as used with #5a (see Tables 9 through 13).

Hypothesis #6b, which predicted few grade differences on recall choices, was only partially supported. Three of the questions are not significant [Question #7, Chi Square=4.14670, DF=4, Sgnificance=0.3865, (see Table 17); Question #9, Chi Square= 3.32924, DF=4, Significance=0.5043, (see Table 18); Question #7b, DF=2, F=1.902, Significance=0.152, (see Table 14)] and two of the questions are significant [Question #8, Chi Square=19.07930, DF=4, Significance=0.0008, (see Table 19); and Question #8a, Chi Square=13.83335, DF=4, Significance=0.0058, (see Table 20)].

Hypothesis #7, which predicted no significant comprehension differences by Sex was supported. Sex could not be seen to be a significant variable throughout the comprehension and recall questions.

The three questions on the Post-Test corresponding with the Pre-Test were not significant so at first glance it appears that Hypothesis #8a, which predicted that those students from Sacred Heart School would show the greatest increase in improvement from the Pre-Test to the Post-Test was not supported. [Question #2, Chi Square=3.48696, DF=4, Significane=0.4799, (see Table 21); Question #6, Chi Square=5.68439, DF=4, Significance=0.2240, (see Table 22); Question #10, Chi Square=1.42265, DF=4, Significance=0.8402, (see Table 23)]. However, if one examines the results of the CROSSTABS analysis for the Pre-Test questions and

compares them with the Post-Test results just listed, one can see that the comprehension score for Sacred Heart School has increased significantly more than the comprehension scores for St. Jude and Immaculate Conception on two of the questions [Question #2 on Pre-Test; High Comprehension (=knowing all five words): Immaculate Conception=78.1%, Sacred Heart=69.7%, St. Jude=91.7%, (see Table 21a) compares to Question #2 on Post-Test; High Comprehension: Immaculate Conception=90.6%, Sacred Heart= 92.1%, St. Jude=93.8%, (see Table 21); Question #4 on Pre-Test; High Comprehension: Immaculate Conception=32.8%, Sacred Heart= 28.9%, St. Jude=72.9%, (see Table 23a) compares to Question #10 on Post-Test; High Comprehension: Immaculate Conception=95.3%, Sacred Heart=94.7%, St. Jude=97.9%, (see Table 23)].

These results indicate that Hypothesis #8a was at least partially, if not totally, supported.

In reviewing Tables 4 to 11 and 21 to 23 which deal with comprehension, one sees no real pattern forming in support of overall higher comprehension levels at Sacred Heart School, so Hypothesis #8b was not supported. There is also slight support to suggest that comprehension levels were higher at St. Jude School. However, the comprehension levels at Sacred Heart did show some signs of being considerably higher than Immaculate Conception for some questions (see Tables 8 and 11).

Identification:

This variable was measured both by means of the Post-Test and the Post-Viewing Interview. These questions on the Post-Test were scored on a three point interval scale; if the child

said he/she did not like a particular character, this was coded
as one, low identification; if the child said he/she did like a
certain character, this was coded as a three, high identifica-
tion; and if the child left the page blank, this was coded as
two or no identification. The results were analyzed using
ANOVA and MCA.

Although not predicted, identification did take place with
characters on each of the programs:

Hypothesis #9, which predicted that older children would
most often identify with program characters was supported, but
only in the case of the Thesis Production [Favourite Character
#8, female wearing "Where" T-shirt, DF=3, F=4.684, Significance=
0.000, (see Table 24); Favourite Character #9, male wearing
"When" T-shirt, DF=3, F=6.004, Significance=0.001, (see Table 25);
Favourite Character #10, female wearing "Why" T-shirt, DF=3,
F=3.770. Significance=0.014, (see Table 26)]. In each case the
MCA indicates that older children, eight and nine years of age,
most strongly identified with these characters, with the six-
year-old children identifying very little.

This strong identification was supported by the responses
of the three grade three students who were interviewed at Sacred
Heart School. These children; two girls eight years old and a
nine-year-old boy, stated that they especially liked these three
characters. They gave reasons such as they were funny, or pretty,
or they did a lot of things.

Hypothesis #10 was partially supported because, of the four
characters in the two programs about whom the children expressed

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any identification, one was significant by Grade [Favourite Character #1, female from prototype program, DF=2, F=3.225, Significance=0.047, (see Table 27)]. The MCA showed that the grade three students identified most with this character, grade two considerably less so. Again, in the interviews at Immaculate Conception, this character was also chosen as a favourite.

Hypothesis #11 was partially supported as Favourite Character #8 from the Thesis Production was most often identified with by females [DF=1, F=8.506, Significance=0.005, (see Table 24)]. The interview results at the two video schools supported these results as the female subjects most often chose a female character as a favourite.

Since the results of Hypothesis #9 indicated that there was more identification with the characters of the Thesis Production, Hypothesis #12 was not supported.

Appeal:

The appeal of the programs and the presentation was measured by asking the children to choose the parts of the program or presentation they liked or did not like. This was scored on a three point interval scale. If the student did not like a segment, this was coded as one, low appeal; if they did like it, this was coded as three, high appeal; and if they did not feel strongly either way, this was coded as two. As well, three special appeal questions were asked, Questions A to C. The results of all of these questions were analyzed using ANOVA and MCA. Also, the children were asked appeal questions similar to those on the Post-Test during the Post-Viewing Interview.

Hypotheses #13a and #13b were not supported as Age was not a significant variable when considered with any of the appeal variables. This was supported by the interviews where younger and older children alike indicated the same kinds of program preferences.

Hypothesis #14 was not supported as grade was not a significant variable when considered with any of the appeal variables.

Sex was significant when considered with two appeal variables. First, was the segment in the COST40-505 program where the actors are cheering [DF=1, F=15.135, Significance=0.000, (see Table 28)]. The MCA indicates that females enjoyed this segment more than males did. This was supported by the interview results as all the females (N=5) liked this segment.

The second appeal variable that was significant was the one that dealt with whether the children would "tell a friend to watch the show" if it came on their television set at home. The MCA indicated that females would tell a friend to watch the show significantly more often than would males [DF=1, F=10.215, Significance=0.002, (see Table 29)]. From these results it may be said that Hypothesis #15a was partially supported. However, there is no significant data to support Hypothesis #15b.

Site was significant with three appeal variables. First, is the segement where the actors just talked to the audience which was enjoyed more by the students at Sacred Heart School than by those at Immaculate Conception [DF=1, F=17.410, Significance=0.000, (see Table 30)]. This result was not supported by interviews where the children at both schools most often

indicated that they did not like this segment.

The other appeal questions which produced significant results were the segments about airplanes and Highway 18. The MCA showed that these segments were most liked by St. Jude students [DF=1, F=12.132, Significance=0.001, (see Table 31); DF=1, F=26.352, Significance=0.000, (see Table 32)]. These results were generally supported by the interview responses, thus indicating that Hypothesis #16 was not supported.

Recognition:

These hypotheses were measured by the Post-Viewing Interviews. The children were asked to indicate to the interviewer which characters and segements of the program they did or did not like. The students were then asked their reasons for these choices. The children were subsequently asked if the characters were like somebody they knew, which would measure the recognition variable. They were not asked specific recognition questions about the transportation sequences as it was believed that if the students did recognize the transportation as being in Windsor, they would offer this information unprompted.

In general, almost no recognition took place and indeed only one male student in grade two at Sacred Heart School indicated that a character in the Thesis Production "was like a friend of his". Also, none of the children volunteered any information about the transportation sequences-that would have led this researcher to believe that the recognition variable was at work with regard to any preferences they may have stated. These results indicate that Hypotheses #17a through 20 were not supported.

Other Results Not Formerly Hypothesized
Children's Opinions About Classroom Television Use

The children were asked both on the Post-Test and during the Post-Viewing Interview their opinions on classroom television. These were questions D to F on the Post-Test. These results were significant for Age and Site. The ANOVA for question D, indicates a strong relationship [DF=2, F=5.972, Significance=0.003, DF=2, F=13.091, Significance=0.000, (see Table 33)] . The MCA indicates that eight-year-old students most often agreed that bringing TV into class was a play period. As well, the students at St. Jude School most often agreed, with Sacred Heart also agreeing rather strongly. Immaculate Conception School students expressed a strong disagreement with this question. For Questions E and F the ANOVAs indicate that Site is significant [DF=2, F=11.120, Significance= 0.000, (see Table 34); DF=2, F=25.729, Significance=0.000, (see Table 35)] . With question E, more students at Sacred Heart School agreed that one can learn more from classroom television use; those students at St. Jude School would generally disagree with this. With Question F, the students at Sacred Heart seemed to contradict their previous opinion by indicating that they would like to watch TV in class so that "they didn't have to work so hard. The responses to Questions D and F were generally supported by the interview responses.

Children's TV Viewing Behaviour:

The children were asked to answer Question G on the Post-Test as a measure of their home television viewing behaviour. The ANOVA results show that Sex and Site are significant variables with this question [DF=1, F=7.267, Significance=0.008, DF=2, F=4.638, Significance=0.011, (see Table 36)] . The MCA shows that overall males watch more television than females and that children at St. Jude School watch considerably less television than do the students at the other two schools. Again, these results were generally supported by their interview responses.

As well, during the interviews, the children generally indicated they preferred programs of the type that follow the pattern suggested by Feilitzen and Linné (1975). The younger children preferred cartoons (especially "Scooby Doo") and some light entertainment shows (e.g. "The Brady Bunch", "Happy Days"). The eight-and nine-year-old children preferred light adult pro- gramming such as "The Dukes of Hazzard".

Teacher's Program Rating Results

The teachers at Immaculate Conception School gave the COST40-505 program an overall rating just below 4 and the teachers at Sacred Heart School rated the Thesis Production just over 3.5. In both cases the entertainment ratings were generally lower toward the end of the program, with the Thesis Production being the lower of the two. These responses generally followed the attention behaviour patterns exhibited by the students. (see Figures 3 to 6 inclusive).

Overview of Teachers' Assessment Questionnaire by School

Immaculate Conception School:

Demographics: 3 females, average age=33, average 10 years teaching experience at primary level.

(1) The general presentational approach of the program was seen as both positive and negative. Too much inactivity was noted.

(2) The subject matter was positive and useful. It was seen as helping the children's thinking processes and skills.

(3) The length was "about right" and positive as the children did not seem to get tired.

(4) The audience response was seen as sometimes enthusiastic and sometimes neutral. Main responses from the children were seen during the rope game.

(5) The instructional effectiveness of the program was seen as positive but the verbal directions, although precise, were too long.

(6) The show was too sophisticated for grade one, but "just right" for grades two and three.

(7) They felt that it would be beneficial to deal with future topics because many textbooks are outdated and this is not.

(8) Topic suggestions for future shows: (a) Community Helpers (2) Ethical and religious values.

(9) Major benefits of ITV: (1) It would save time and free the teacher to work with smaller groups. (2) It instructs effectively.

(10) These teachers rarely use television in class, and then only the informational type.

Sacred Heart School:

Demographics: 3 females, average age =32, average five+ years teaching experience at primary level.

(1) The general presentational approach was seen as positive and negative. The program was seen as perhaps too long The show had overall appeal.

(2)   The subject matter was useful and positive. Questioning was well explained and reinforced.

(3)   The length was positive and negative. It was too long for grades one and two and "just right" for grade three.

(4)   The audience response was generally positive and the classes were fairly attentive and interested.

(5)   Instructional effectiveness was seen as mostly positive. It could have been made moreso if it had been shorter.

(6)   The level of sophistication was too high for grades one and two and "just right" for grade three.

(7)   Further programs would be beneficial because they could reinforce and supplement the classroom programs and topics of interest to the students.

(8)   Topic suggestions for future shows: (1) Health and nutrition (2) Local community, industry and labor.

(9)   Major benefits of ITV: (1) Information (2) Reinforcement (3) Entertainment.

(10)   These teachers sometimes use television in class, but this is only the informational type.

St. Jude School:

Demographics: 2 females, average age=35, average ten years teaching experience at primary level.

(1)   The "Magic 5" approach was seen to be useful as an information gathering tool. It would work very well in Literature and Environmental Studies.

(2)   The students seemed enthusiastic and their response to the material positive.

(3)   The level of sophistication was seen as "just right" and positive.

(4)   They felt that the "Magic 5 W" approach would be beneficial for classroom use in studying the history of Windsor, especially for the grade one students who are not ready for regular history lessons.

(5)   Major benefits of ITV: (1) Children identify more with TV characters so they seem to learn more.

Aggregate of Responses to Agree/Disagree Question About ITV
From Teachers' Assessment Questionnaire: (see Appendices 8a and 8b)

(1) In general, the teachers disagreed with this state-
ment supporting the comment made in Chapter 2. This
result would appear to indicate that it is not the
medium that does the teaching, but rather the teacher.

(2) There was no common agreement here with the responses
ranging between the disagree and neutral categories,
with a slightly higher choice for disagreement. As
most of the teachers do not use television in the class-
room on a regular basis, the tendency toward disagree-
ment/neutral choices must come from previous experi-
ences. Those who disagree may have had a positive ex-
perience with in-class television. Those who are neu-
tral have perhaps mixed feelings about their experien-
ces, or they may have had no previous dealing with in-
class TV.

(3) The teachers generally agreed with this statement.
Perhaps if the statement had been qualified with the
addition of a time element (i.e. Television generally
keeps the child's attention for any length of time)
the results might have been different.

(4) The results for this statement were in the "toss-up"
range with half of the respondents agreeing and the
other half equally divided between the disagree and
neutral categories. With such a small sample, it is
difficult to say what dynamic is at work here.

(5) Again, the results are evenly distributed across
the disagree and neutral categories. These responses
would appear to indicate that the teachers felt in
general that they understood television as it is used
in the classroom.

(6) Two categories were mentioned in this response, agree
and neutral. Those who agree use at least some ITV
and perhaps they feel they are in the better position
to comment, whereas, those who are neutral usually
use ITV rarely. They seem to be unwilling to commit
themselves either way.

(7) There was strong disagreement with this statement.
This is perhaps due to the fact that most of the
respondents have had five or more years of teaching
experience and probably would not allow themselves
to be alienated from their students.

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(8) The answer here is again evenly split and it is
     not really possible to ascertain what is happening
     with this response.

(9) There was generally disagreement with this statement,
     possibly for much the same reason as statement #7.
     Being experienced teachers the loss of control in the
     classroom would probably not be a factor in ITV use.

(10) This another "toss-up" question offering very little
     information.

(11) There was general disagreement with this statement.
     Again, one believes that the years of experience
     these teachers have had must come into play. They
     are aware that TV is a medium and cannot interfere
     with the quality of the face-to-face contact an ef-
     fective teacher brings to the teaching situation.

CHAPTER 8

CONCLUSIONS

The conclusions shall be presented in three parts. First, the results of the hypotheses used to compare the Thesis Production to the prototype program and the non-video presentation are interpreted and discussed in detail. As well, the importance of the results not formerly hypothesized will be presented.

In the second part, the concentration is on the formative research on "The Magic 5 Workshop". Here the information gathered from part one will be used, along with further pertinent data, to discuss the relative success or failure of the six program objectives of the Thesis Production (see Chapter 5).

In section three, general conclusions shall be drawn concerning the success of the entire project with the expressed intent of stating exactly what has been discovered as a result of this thorough production research process.

Part I

Interpretation and Discussion of the Results

of the Comparative Testing Hypotheses

Hypotheses #1 and #2 were not supported which indicated only that the children's attention levels were not as high as might be expected. Their attention levels were adequate for this researcher, but probably were affected by the amount of relative inactivity that took place during the segments where the actors were giving explanations. As one six year old

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young lady from Immaculate Conception put it, "They weren't
doing anything and it was hard to see the story. Some of us
couldn't understand!"

Hypothesis #3 was put forth by the researcher because he
believed that there was more to interest the females strictly
from the point of view of characters. According to Winick and
Winick (1979), girls will enjoy both male and female characters
on the screen. From this point of view, it appeared logical
that the females would pay more attention to both programs.
However, it appears that the characters have to be doing some-
thing that the children perceive as unique if they are to be
expected to attend to them in a program. Simply put, the charac-
ters cannot just be a male or a female, but rather they must hold
special qualities that the audience member can see is different
from other characters. The characters in both of these TV shows
were, by design, too neutral to be interesting.

Hypothesis #3b was supported because as predicted the males
attended to the COST40-505 program more than did the females,
again probably because they appreciated the fact that there were
more men (3) in the cast than women. During the Post-Viewing
Interviews, the males most often indicated a male character as
a favourite. The females, on the other hand, attended more
closely to the Thesis Production, probably because of the three
female characters. Even though the females more readily attend
to both genders in a television program, given a choice, their
interview responses still favoured a female character.

Although Hypothesis #4 was not supported, this should not indicate that the Thesis Production has not been improved from the prototype version. The main problem is the former's length. The 1980 production was only nine minutes in length whereas the thesis show was seventeen minutes long. If one couples this knowledge with the fact that some quite long segments were presented near the end of the thesis program, which was being viewed in an extremely hot classroom, one can begin to understand why the attention began to fall most dramatically towards the latter stages of the program.

Hypothesis #5a was partially supported and this gives an indication that cognitive development may not be as important a variable as was expected in this production, or for that matter, in children's comprehension of instructional television in general. The test scores were inconclusive in support of the belief that older, more cognitively developed children will always exhibit greater comprehension of televised instructional materials. The Post-Test results indicated that sometimes age/development was a significant factor and at other times, it was not. Perhaps the more affective elements are a program that clearly conveys its message so that it might be easily understood by a wide viewing audience and a test instrument that adequately measures the results. Both of these elements were present in the current research.

As predicted, with Hypothesis #5b, age did not appear to be a factor in recall. If the material is salient enough in

the program, recalling events and/or instructional content should not be any easier for older than younger children, providing the testing is not conducted too long after the stimuli is seen. Results obtained after a long delay between viewing and testing would be affected by the extremely short-term memory of the younger children.

Hypotheses #6a and #6b, had similar results as the previous two. If cognitive development (age) was not greatly affecting comprehension and recall scores, the corresponding grade levels would also not affect them.

Hypothesis #7 was supported as predicted. This researcher did not expect any differences here because the children, regardless of gender, are developing and learning at relatively the same pace. Where gender was expected to come into play was in the areas of preference (i.e. identification, appeal, and recognition) where the uniqueness of the individual could be seen.

With Hypothesis #8a being at least partially supported, an argument can be put forth that the improved version of "The Magic 5 Workshop" is a better teaching aid than the prototype version. Significant learning obviously took place at Sacred Heart School from the Pre-to Post-Test situations. A much more comprehensive Pre-Test/Post-Test design would probably be needed to ascertain just how much learning had taken place.

Hypothesis #8b was not supported and in truth, this should have been expected. One could not realistically expect the

comprehension levels to be that radically different between Sacred Heart School and St. Jude since they were both getting the same content. The only thing that was different was the symbol system used to convey the information (live vs. television) and this symbol system could be what affected the results of the Post-Test. To explain further, according to Salomon (1979), different learners learn more or less better from different instructional systems. It may well be that the children from St. Jude learn very well from face-to-face teaching and that those at Sacred Heart School do not learn well from television. In the final analysis, one must not overlook the obvious fact that the children from St. Jude School could just be a very bright group of children. As well, SES may very well be having a stronger affect on this whole study than was expected.

The results of Hypotheses #9 through #11 clearly point out one thing: it is not easy to control for identification in a children's television show. The children looked for reasons to like or not like a character, ranging from, "They did a lot" and "They were pretty" for liking them to "I don't like his hair" and "I don't like the word "Who" (in reference to the word on the actor's T-shirt), for not liking them. In the absence of any real characterizations, especially in the Thesis Production, the children read characterizations into these productions.

From the results of Hypotheses #13a to #16, the

researcher could not get a clear picture of how appealing either program was to the students. The surprising fact that the students at St. Jude School indicated strongly that they liked the two transportation examples, underscores how poorly these two segments must have been presented in the Thesis Production. The St. Jude students had only seen crude overhead transparencies of these two items, whereas the Sacred Heart group saw location shots of the actual items. Perhaps it was that the idea was a good one, but the translation to the television screen was very poor.

Thoughts on the lack of recognition shall be presented in the second part of this chapter, where the level of formative development of the Thesis Production is discussed.

Discussion of Results Not Formerly Hypothesized

The results of the children's opinions concerning classroom television use coincide very much with those of the original COST40-505 research. At that time, the children also indicated that TV in class meant that they could have a "free period", while the teachers listed the many educational benefits of ITV. This disparity between teachers' intentions and children's perceptions of the reason for ITV in the classroom will most likely continue. Until this breach is closed, teacher and producer alike will continue to try to accomplish and fail to reach the far reaching limits that the TV in the classroom can offer.

The results of the children's television viewing behaviour

was not surprising. Research has shown that children from low SES homes often watch more television than those who come from more affluent households (Tunstall, 1970; Shipman, 1972; Medrich, 1979). In talking with the students at St. Jude School, one gets the impression that they are far more well read than those students at Sacred Heart School. This may or may not be a direct result of the amount of TV the former students watch, but it could also be a results of positive interaction between these children and their parents. The principal at St. Jude indicated that the parents were extremely involved in the work habits of the children, showing great concern that their children did well in school. The principal at Sacred Heart indicated that the parents of these children were not quite so concerned.

The teacher's assessment questionnaire results, although positive, left this researcher with a particular feeling of confusion. By and large the teachers indicated that they enjoyed the program and that they thought that it had strong potential as a teaching aid. As well, they had mostly positive things to say about the use of ITV in the classroom. Yet, almost all of them stated that they did not use ITV and probably would not use it. This leads this researcher to believe that perhaps these teachers were only responding in a socially acceptable manner (with a strong positive response bias) and not in a manner that was at all candid. Again, this is not in any way conclusive, but if this is the case, then this

research points out that a specific kind of test methodology will have to be developed that would clearly pinpoint the most candid opinions of the teachers.

Part II

Formative Analysis

This section shall be discussed in direct relation to the six program objectives of the Thesis Production. The results of the comparative analysis and also the opinions of the teachers will be incorporated.

Results of Objective #1: Entertainment

The children did not appear to exhibit much overt behaviour during the viewing of the program, but neither was this exhibited at the other test sites. The children appeared to enjoy the show while viewing as they responded to "shout out the answer" during the "Box" game. At some points the interest levels were quite high, most notably during the "rope pull", the "Box" game and the first location shot. The fluctuation in attention appears to have been a result of the relative inactivity throughout.

When the researcher was designing the program, he could not really pace the parts of the show that were merely spoken instruction with little on-screen activity. These segments did not seem too long, but obviously they were. The children indicated most often that they disliked the opening graphics, and the parts where the actors just sat around. All nine of the children interviewed at Sacred Heart School mentioned that

they liked the show overall. They liked the "rope game" and most of the transportation segments the best and they were quite emphatic about this information. It may have been that the positive response bias (Mielke and Chen, 1980) was working full force, but this could not be ascertained during the testing.

The teachers only gave the program a 3.5 level of entertainment value, which is considerably lower than this researcher would have hoped for, but nonetheless a better than average score. They reacted against the parts of the program that were just too slow and inactive. As was stated, these teachers know what their children will like and they hope that a producer will know this too.

One very important factor that surfaced was that the children identified with three out of the five characters. This, although not expected, obviously added entertainment value to the show. The students were quite happy to talk about these characters during the interviews. For the future then, enhancing the characters, even to the point of using peer-age characters would add greatly to the entertainment value of the show.

In any future programs, the researcher/producer would have to shorten the show considerably and pick-up the pace of the action. Truly, one tried to do far too much with this one program. It would have been enough to present the question-asking methodology alone without trying to include the control of identification and recognition as primary research variables

as well. Also, it would have sufficed to present only the history story or transportation and not both, as a means of showing how the "Magic 5" could be used.

In the future it would be necessary to more closely relate the imagination games to the use of the "5 W's" in order that the children would be able to see how the former is fundamentally important to the successful use of the latter. This was not properly structured in this current research so that the imagination games became what Zillman and Bryant (1980) refer to as "non-related humour" which is the type that is just funny, but necessarily related to the instruction. This was directly opposite to what the researcher meant them to be and although they were entertaining, they did not achieve their objective of helping the children to develop a "creativity approach" in the use of the question-asking methodology.

It was a mistake not to incorporate music into the program, especially during the transportation sequences. The music that was used during this segment in the prototype had the children bouncing in their desks, smiling and tapping their feet. The decision to go with the sounds of the "natural environment" in the location shooting was not the best, especially since these sounds are sounds the chidren hear everyday.

Finally, even though the Post-Test results did not indicate many favourite parts of the show, neither did it present many results which would indicate a general dislike for the program. On the basis of the Post-Viewing Interviews this

researcher would have to say that the children were entertained by the show, but could be even more entertained if the show was further improved. The children stated that the program was fun and different and because this researcher believes in "child-centredness", their responses were considered most important.

Results of Objective #2: Education

The teachers' responses at both Sacred Heart and St. Jude Schools indicated that they believed this program/approach to be a beneficial teaching aid with good potential. Again, the Post-Test did not show overwhelmingly high comprehension levels, but neither were they low. In general, the researcher would say that the children comprehended the program/presentation and that the potential for learning definitely existed. Almost all of the students interviewed at these two schools, when asked why they had liked the program or presentation, said it was because they could learn about the "5 W's" and how to ask questions. This was certainly an increase over the COST40-505 research where the children could not articulate much of this at all (see Chapter 2). Also, the children at Immaculate Conception could not articulate much of this information.

This program is perhaps too sophisticated for the grade one students and somewhat "below" the grade three students. The grade one teachers at each of the video schools indicated that they felt that these programs were too sophisticated instructionally for their students. However, the Post-Test

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results were not conclusive and since there were no follow-up tests to see if there was any retention of the materials, it cannot be said for certain that the grade one children would not be able to understand the materials over time. Still, the results that are available would tend to indicate that these children would find it difficult and probably not benefit from the program as an instructional aid. Perhaps the use of special learning excercises used after the program is viewed (e.g. projects to help the children use the "5 W's", under the supervision of their teachers), might help these younger children with any confusion they might experience as a result of watching "The Magic 5 Workshop".

As stated, these materials may be "below" the grade three students. By this is meant that, even though they can easily comprehend the materials in the program, the attention behaviour and Post-Viewing Interview results tend to indicate that these children do not find this kind of programming that appealing. They are more interested in light adult programming and "The Magic 5 Workshop" hardly falls under this category.

Thus, as an educational teaching aid, all the results of the Post-Test, the attention observation and the teachers' comments would seem to point to grade two as the target audience for this program.

Results of Objective #3: Learning to Use the "5 W" Approach

This objective was still not accurately measured, although the preceeding comments concerning objective #2 at least indicate that the children who saw the Thesis Production knew what the

"5 W's" were this time around. A test procedure would have to be developed which actually measured how well the children could use this question-asking approach. Perhaps some task-oriented test with a game-like structure may accomplish this.

Results of Objective #4: Identification

Obviously, this objective was not successful, but this lack of success produced extremely positive results. The children found the characters appealing and that was important because of the slower paced moments of the show. Identification is a necessary component for the child audience and if the producer tries to take it out, the children will simply put it back.

The researcher now realizes that it is not the amount of identification that a child has with a character that may be detrimental to learning from ITV, but rather how the actor (producer) goes about getting the child to experience that relationship that is the key factor. Outlandish characterizations in the middle of an instructional segment can detract from the most salient of learning points. If all the producer wants is an audience, then any kind of zany villain or hero will do. The result may well be that the child may only remember the fantasy situations and characters presented. Clearly, the producer must be cognizant of the amount and kind of identification that he/she incorporates into an instructional program designed to be used by young people. Children are highly subjective and impressionable; they seek fantasy escape from television and

a freedom from adult strictures. If the producer wants the child to learn, his/her program will have to have elements in it that will allow for this fantasy and escape while still managing to keep the child focused on the important learning variables. Perhaps this calls for a production style that presents characters that are very likeable and entertaining, while being "teacher-like" at the same time. Also, it may mean creating scenes that are just far enough from "real life" to be amusing, yet sufficiently close to something that the child can easily relate to in his/her own life. Clearly, more research is needed in this area and this researcher can only speculate at this time as to what might and might not work.

Certainly, the researcher now sees that identification with characters can lead to more interest and thus to more learning. Now that he is confident that the basic structure of "The Magic 5 Workshop" itself is sound, the use of different types of characters would definitely be important in any summative design. This researcher would incorporate an adult "play-leader", probably a female character, who would work with four other child characters, of approximately the same age as the target audience. The researcher would still not use animated or puppet characters in the body of the program (animation would certainly be considered for use with the opening graphics!) as he continues to have confidence in Quarforth's (1979) research.

Results of Objectives #5 and #6: Recognition

From the very beginning this researcher knew that concentration on this variable was at best a calculated risk. Yet, as a research concept, the basic principle behind it seemed strong enough so that both the researcher and his chairman believed it was important to study the possible learning effects of recognition. Clearly, however, the test results show that this objective was not achieved and that a strong concentration on this variable detracted from both the entertainment and educational quality of the show. Still, that is what research is all about, to try things to see why they do or do not work.

There certainly seems to be no difficulty in including recognizable content in a program; in fact, the teachers generally favoured the idea of local, community content for future program themes. But recognition, at least in the way this researcher expected the children to experience it, does not appear to have the ability by itself to be the strongest learning variable in an instructional television program for children. Perhaps recognition might work with a much older target audience who might find it relevant to directly relate the televised learning materials to their own lives and experiences. They would most likely see the interrelationship between themselves and someone or something that is representative of their immediate environment (e.g. they may recognize someone as being like someone they know at work or at home; they might recognize (for example) the importance to them of transportation in their city). They would probably be able to accomplish all

of this without any prompting. On the other hand, children seem to have great difficulty in dealing with the process of interrelating, and if they cannot do this unprompted, then it would appear that recognition will not take place.

Clearly, recognition cannot work by itself and as has been demonstrated in this research, an over-concentration on it causes a tendency to exclude other valuable production and learning variables.

Part III

General Conclusions

This Thesis/Media Production offers a working example of a production research process that appears to encompass every facet of formative development. "The Magic 5 Workshop" has evolved a great deal since its idea stages in May of 1980. This researcher believes that the process followed in this study has improved the program and the researcher's conceptions of children's instructional program design. If nothing else, the program now has much more style and polish than the proto- type program. Any flaws that were seen in the Thesis Production could now easily be improved upon in the summative stages.

There are several things which worked extremely well for this researcher and of which he is duly proud. First, the design of the Pre-and Post-Test questionnaires is completely original and worked exceptionally well. The children could easily under- stand the questions because, as the principal at Sacred Heart School stated, "The questions are on the children's level for a change."

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The five component parts of this program (see Figure 1) are simple and concise, clearly mapping out the structure of the show. The production hierarchy used in this research (see Figure 2) offers a step by step guide to producing an instructional television program.

Thirdly, the research conducted for this thesis has been thorough and precise so that this researcher believes that he has offered something to the area of formative research design.

One of the most important discoveries to come out of this research was how useful and necessary the Annotated Script is to the formative research process. This script offers the basis for much of the decision making that goes into the production. Here he states that his/her reasons for doing certain things in a particular program are appropriate and not merely based on feelings. Also, and equally important, using this type of script makes it very easy for an instructor to see exactly what a student is doing and why. As well, a fellow researcher would be able to follow the work-in-progress by simply reading through the primary researcher's Annotated Script.

One of the greatest difficulties that this researcher encountered during this research was that of achieving a balance between his intuition and the research literature. He allowed himself to get so immersed in the research aspects of his script that he forgot about being artistic. As a result, acting and style choices were made that strongly detracted from the entertainment quality of the script. It was of course

important to follow the ideas outlined by the research but only to the point that one's objectives are not compromised. In this research, by adhering so strongly to the concept of recognition, the first two program objectives were greatly weakened. The researcher would have been more successful had he made a conscious effort to integrate the research ideas with his own intuition. The knowledge from the review of the literature would then have become tacit knowledge, there to be used, but tempered by artistic choices.

This project has taught one more in the course of a year than many years sitting at a desk could have done. The production research process works and has proven to be valuable. On the surface, the results of this study are certainly not earth shaking. Yet, now one knows clearly why, for example, identification is important and not just that it is. As well, one can clearly state that studying children on the basis of age, grade and sex is not enough when conducting research on the elementary school level because certain intervening variables can crop up. In this study it was, as stated, possibly SES that came into play, but realistically, it could have been the school environment, the individual teachers or the interaction of the children themselves, that had some effect on the outcome of this study.

The project has come full circle as the diagram of the production hierarchy (Figure 2) points out. The analysis is complete and now new ideas for future productions of "The Magic 5 Workshop" are being generated. This researcher is

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ready to begin again so that, "at the end of the complex process, producers, administrators, and users" (Gillis and Nickerson, 1981:20) and academics can echo those immortal words, "Does it work?" Ladies and gentlemen, I humbly submit, "It does!"

CHAPTER 9

RECOMMENDATIONS FOR FUTURE RESEARCH

For those interested in undertaking a similar journey, there are some pertinent recommendations that should be considered:

A project of this nature is extremely unwieldly (=almost impossible) for the individual to tackle on his/her own if he/she is not a professional producer. There were many times this researcher found himself lost in the forest staring at the trees. Thus, this project would have been better served by a group effort. The researcher would have been able to consult with someone sufficiently close to the work-in-progress. This could be accomplished by a graduate student working in concert with two undergraduate students, possibly from an independent studies course. Sufficient research would be generated from a project of this magnitude that both the graduate and undergraduates would benefit immensely. The one-man-team effort certainly looked appealing at the outset, but the load has been quite staggering.

A budget must be established, if at all possible, for future Thesis/Media projects. Nothing can come from nothing and the love for research notwithstanding, a zero budget does not go very far. Such a budget need not be staggering, but it must go beyond knowing that the studio in the Media Centre

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might be available. Perhaps in the future, if practical pro-
jects can take hold and become accepted, a structure can be
created where the interested researcher can go for monetary as
well as academic assistance.

As for this type of study, the problem that was encountered
with regard to the differences in the Pre-Test results will
probably recur any time a researcher decides to test whole
classes. This researcher was willing to accept these differences,
believing them to be acceptable within the strictures of this
study. However, believing that there may be readers who will
not accept this breach in validity, one has the alternative to
further build in controls that would take into account the
possible effects of socio-economic conditions and environmental
constraints. Any instructional device that is potentially
going to be used by an elementary school-age child has to be
designed and tested with these peripheral variables in mind.
Accepting the "child-centred" approach goes a long way toward
solving this problem since whatever the child says in response
to a presented stimuli is taken and without any reinterpretation,
used as valid data. Again, there is probably the odd statisti-
cian or two who may blanch at this idea, but so be it.

If further productions of this type are done, it will be
necessary to develop a work booklet that can be used by the
teacher to extend the classroom experience long after the testing
is completed. Indeed, several of the teachers involved in the
study were somewhat dismayed at being left so high and dry, for
they fully expected a manual of some sort that was not

forthcoming. It had been the intention of this researcher to develop a workbook of this type but only when be believed that he was going to conduct simple research using only his thesis program as the test stimulus. Once the three-tiered test design was established as the only "acceptable" way to gauge the validity of the Thesis Production, it became impossible to develop one booklet to do three different things. Still, this researcher believes that the creation and design of booklets for use with instructional television programs, even existing programs, would be a valuable research project. The teachers involved in this study readily admitted that a lack of such materials can have an effect on whether a program is used or not.

One of the important points that surfaced during this research was the possibility that a type of "natural decay" occurs in the attention behaviour of children as they watch an instructional television program. This may be caused by the quality of the program or it may be an inevitable occurance brought about by the fact that most children are fairly visually literate. They can tell from the narrative style of the program when the end is coming and so they choose not to pay attention to this usually more inactive part of the show. The producer may be able to increase these attention levels by keeping the action continuous, but not unclear, to the end of the program. Leaving the child excited at the close of the show can create anticipatory energy where the child is anxious to use what he/she has "learned" from the program. If the action of the

program drops markedly in the latter segments of the show
(as happened with the Thesis Production), the children may
feel that all the "learning" is over and they may lose interest
and thus, even the potential for further learning could be lost.

If "The Magic 5 Workshop" were to be produced again,
several things would have to be changed in order to improve
the show. First, original music that the children could easily
remember and readily associate with the show would be an asset.
The characters would obviously have to be strongly identifiable,
so the cast would be made up of children and a female adult
play-leader. The action would have to be much faster paced
throughout, incorporating a fair number of humorous bits of
both a related and non-related nature. Most importantly,
the producer would only be able to concentrate on one instruc-
tional message at one time (i.e. history or transportation or
community helpers). Anything more than this one message causes
a sort of overload to take place and most likely does not aid
in long term retention.

Finally, it could well be incumbemt on the communications
researchers to more zealously aid the children of the larger
community in coming to a greater understanding of the nature
of television. This may appear a disgression, but rest assured
it is not. One of the offshoots of a study of this nature is
that one gets a first-hand look at what the researchers theorize
about. As Quarforth (1979) pointed out, the children really do
have special television friends that they think are "real boys
and girls" but are in reality puppets. This researcher probably

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burst more than a few bubbles in his several talks with the children at Sacred Heart and St. Jude Schools when discussing the workings and nature of television. These children have a great many gaps in their knowledge of the medium, gaps that this researcher believes should be filled. The wealth of knowledge exists, and at the risk of sounding overly naive and altruistic, it should be passed around beyond the academic journals.

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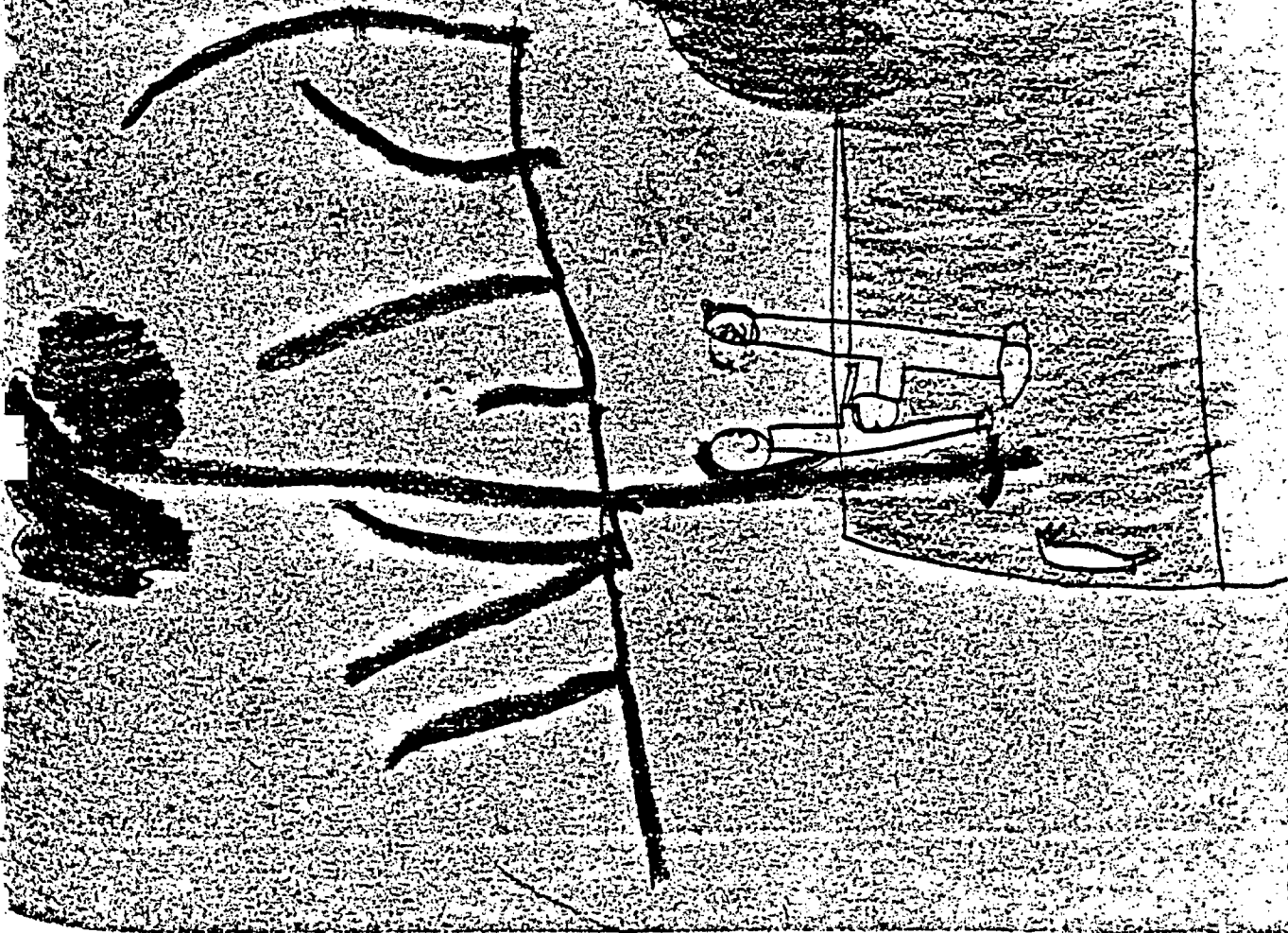
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APPENDICES

APPENDIX 1a

EXAMPLES OF PICTURE RESPONSES
FOR COST 40-505 PRODUCTION

Cortina
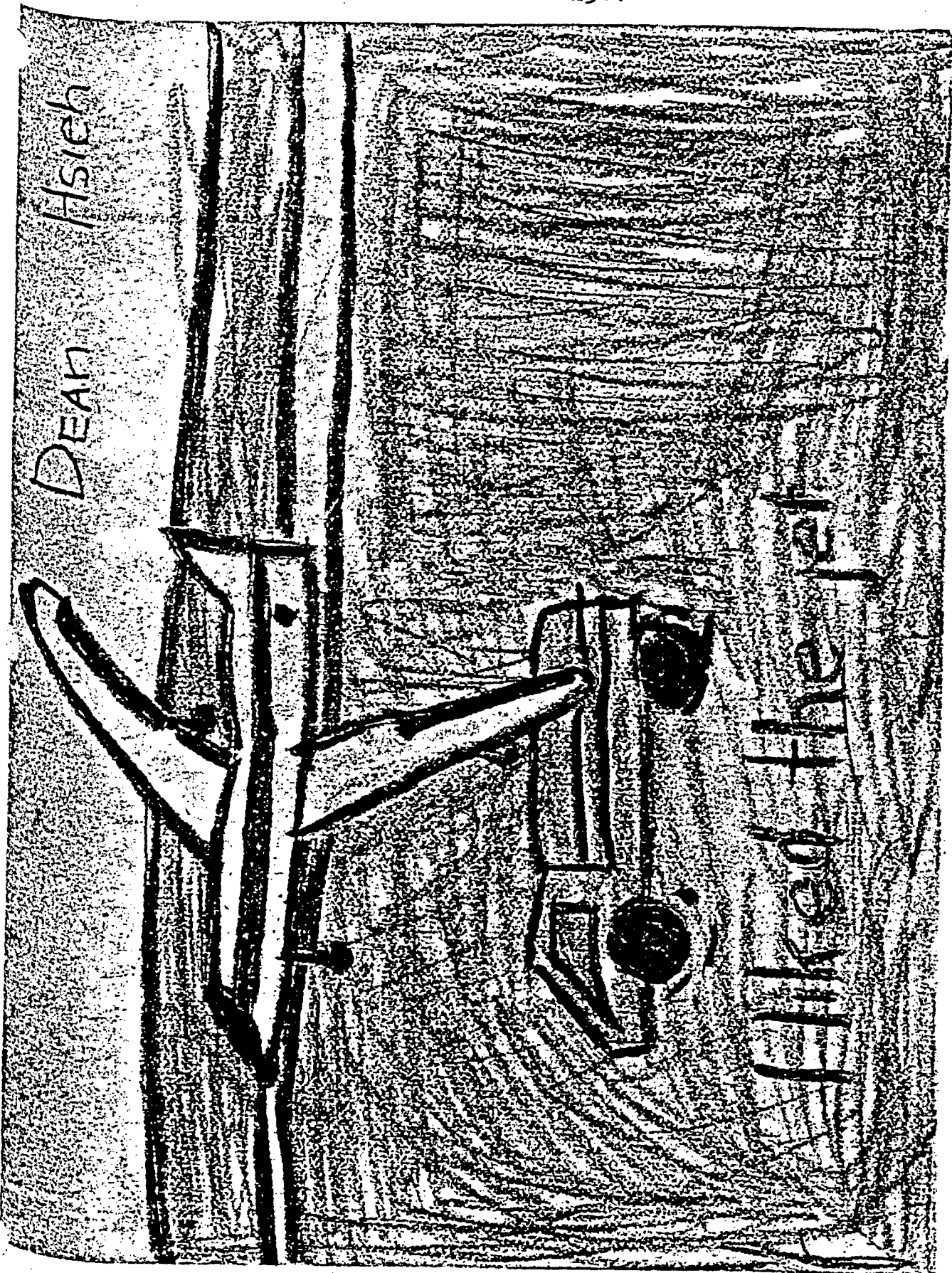
APPENDIX 1b

EXAMPLES OF LETTER RESPONSES
FOR COST 40-505 PRODUCTION

238.

I liked everythi..g. My favcite
was when the man fell. And
second favrite was when the o
man was holding the rope a
fell down.
Othter Ideas

moon spase morse

I liked the part when t were amagining they were the rope.

Other Ideas

space
space ships
stars
moter cicles
airplanes
humonbodys
sun
moon
dinusors

APPENDIX 2

EXAMPLES OF TEACHER'S ASSESSMENT QUESTIONS
FOR COST 40-505 PRODUCTION

241.

<u>Teacher's Assessment Questions</u>:

What were your general impressions of this production under the following categories:

1) general presentational approach, (i. e. effectiveness of "Magic 5", acting style, script)   Positive ✓ Negative____
Why? _Generally good. At times, they talked a little too fast. Perhaps there could be more emphasis on the 5 W's. (cards with the words on, etc._

2) Subject Matter, (useful, dull, other)   Positive ✓ Negative___
Why? _Children could relate to it because it involved something they were familiar with - their city._

Length, (too long, too short?) about right?)   Positive ✓ Negative___
Why? _Anything much longer and they lose interest and get fidgety. (15 mins at the most)_

4) Audience Response, (enthusiastic, neutral, hard to tell?)   Positive ✓ Negative___
Why? _The children listened well. You can tell when they're not enjoying something; they get very restless_

5) Instructional Effectiveness, (overall, general impressions)
          Positive ✓ Negative___
Why? _It is interesting for them watching their own city on television. Perhaps some slides of transit workers would have been good too._

Do you feel that programs of this type, dealing with a wider range of topics might be beneficial for home viewing by children or classroom use by teachers? _I would prefer to have them see them in the classroom_
Why? _That way we can discuss it together, sharing our ideas and perhaps even do further study._

What topics do you feel might be useful to include in future "Magic 5 Workshop" productions? _Windsor Long Ago   A Visit to a Hospital_
Why? _Communications in Windsor   Helpers in Our City_

What do you consider to be the major benefits, (if any) of television as a classroom/home teaching aid? _They like it, for one thing. So much more information can be brought to the children through the media of TV._

What are the major drawbacks? _I wouldn't want them to rely on it for everything_

242.

As an educator, what might you suggest to improve the quality of educational *///* television programs that are currently available ? (i.e. by O. E. C. A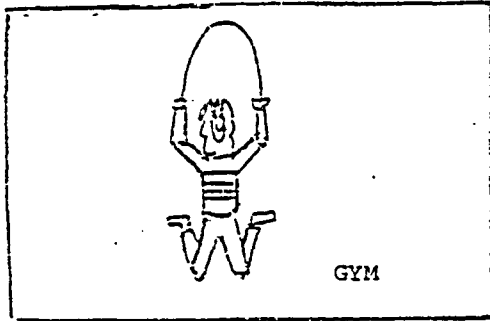. , TV Ontario, Channel 56, etc.,). *They are) until are generally quite good particularly "All about You" a health program*

Any other comments? *I feel the program has good potential. However, I strongly suggest that you place more emphasis on the 5 W's in your programming. (how they are used + what they are.) Good luck."*

APPENDIX 3

PRETEST FOR THESIS RESEARCH

244.

GYM

DOG
CAT
HOUSE
HAPPY
BOY   PHONICS

BIG
BOOK   READING
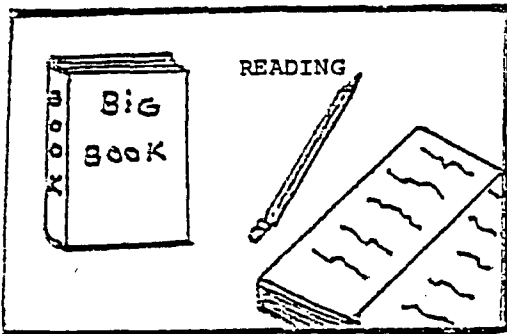
4   10
+4   -9
8   1

3 + 2 = 5

ARITHMETIC

?
I DON'T KNOW.
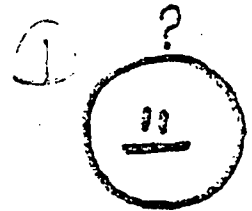
WHAT IS YOUR FAVORITE SUBJECT IN SCHOOL?

DRAW A CIRCLE AROUND THE WORDS THAT I SAY.
(RESEARCHER SAYS THE FIVE "W" WORDS)

Who With HELLO What Where
DOOR ROOF When Why Window

?
I DON'T KNOW.

*TYPED WORDS AND QUESTIONS DO NOT APPEAR ON THE CHILDREN'S COPY.

DOES THE WORD TRANSPORTATION TALK ABOUT THINGS THAT
HAPPEN AROUND THE HOUSE, OR DOES IT TALK ABOUT THINGS
LIKE BOATS, AND BICYCLES AND AIRPLANES?
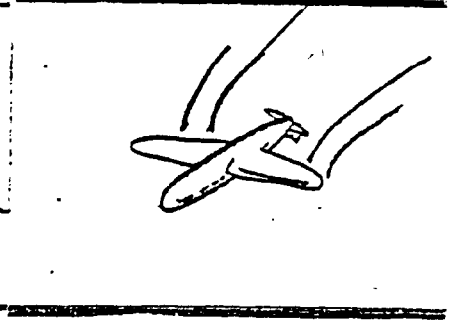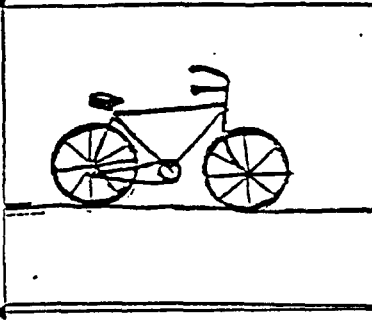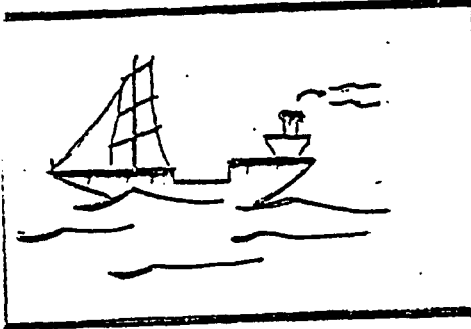
BOATS   BICYCLES   AIRPLANES

DOES THE WORD"WHEN" TALK ABOUT THE PLACE SOMETHING
HAPPENS, OR DOES IT TALK ABOUT THE TIME SOMETHING
HAPPEN?
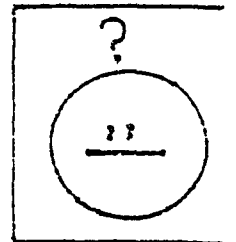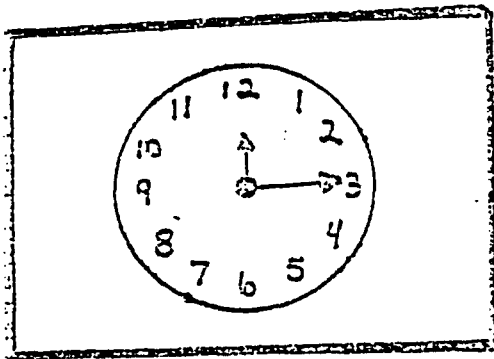
TIME   PLACE   I DON'T KNOW

WHAT IS YOUR FAVORITE HOLIDAY?

EASTER

I DON'T KNOW

CHRISTMAS
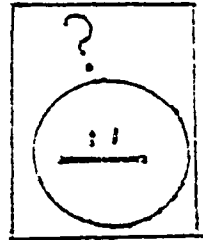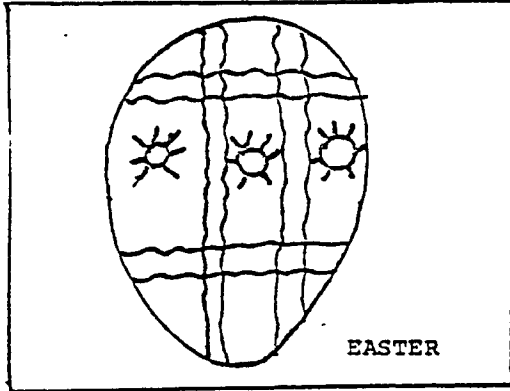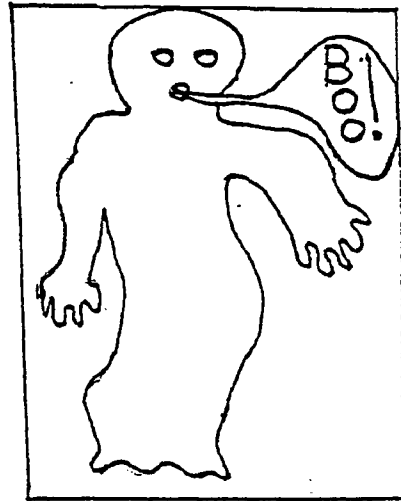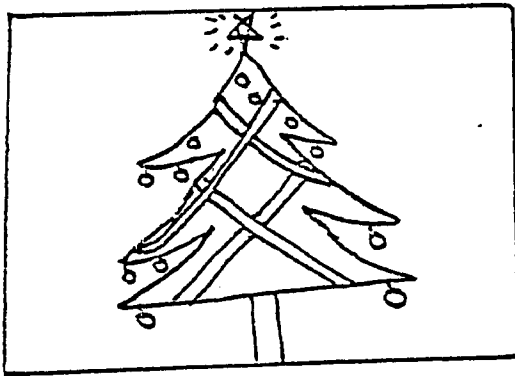
HALLOWE'EN

APPENDIX 4a

POST-TEST
FOR SITE #1, IMMACULATE CONCEPTION SCHOOL

GRADE: SITE 1 _____ M E SCHOOL: _____

1. WHEN YOU USE THE "MAGIC 5 W'S", ARE YOU ASKING QUESTIONS, OR
ARE YOU GIVING ANSWERS?"

2.
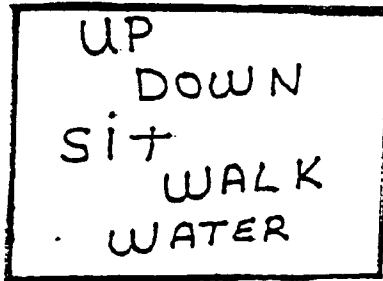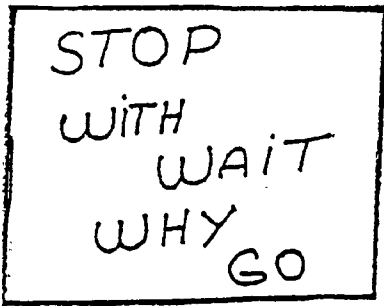
UP
DOWN
SIT
WALK
WATER

DRAW AN X THROUGH THE
BOX THAT HAS THE "MAGIC
5 W'S" IN IT?
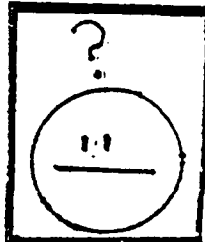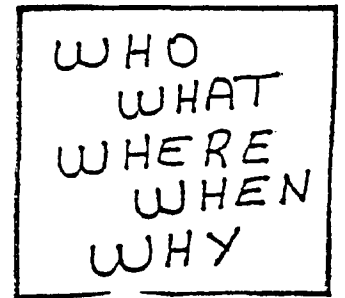
STOP
WITH
WAIT
WHY
GO

WHO
WHAT
WHERE
WHEN
WHY

3. IN THE STORY, THE "MAGIC 5" ACTORS TELL US THAT WE HAVE TO USE
TWO SPECIAL TOOLS TO FIND OUT ABOUT A LOT OF THINGS. WERE THESE
TWO THINGS BOOKS AND PENCILS, OR THE "MAGIC 5 W'S" AND YOUR IMA-
GINATIONS?

BIG
BOOK
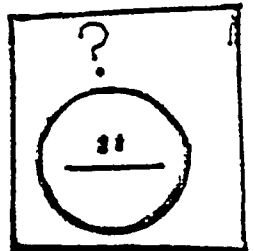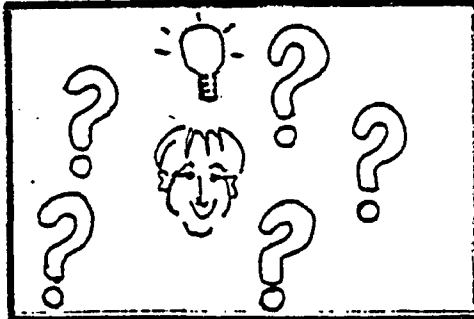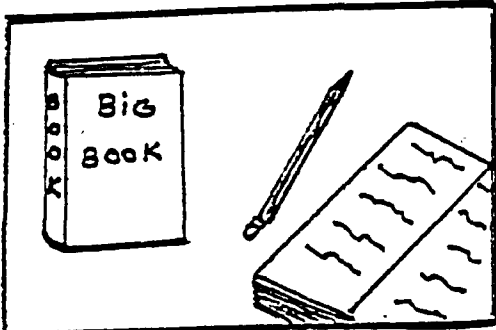
*TYPED QUESTIONS DID NOT APPEAR ON THE CHILDREN'S COPY.

4.

THE "MAGIC 5" ACTORS TOLD US WHEN IT WAS A GOOD TIME TO USE THE MAGIC 5 W'S.
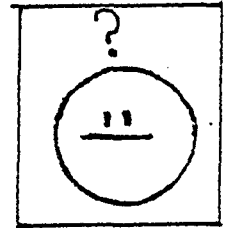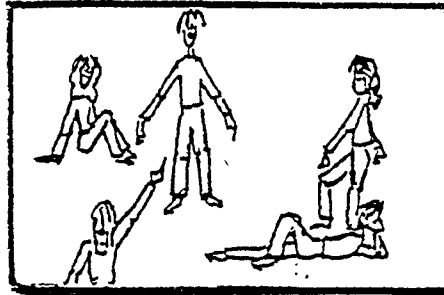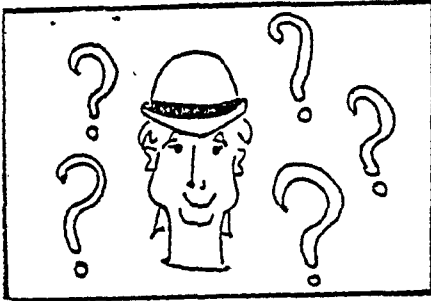
DO WE USE THE "MAGIC 5 W'S" WHEN WE WANT TO ASK QUESTIONS TO FIND OUT ABOUT SOMETHING, OR WHEN WE WANT TO TALK WITH OUR FRIENDS?"

5.
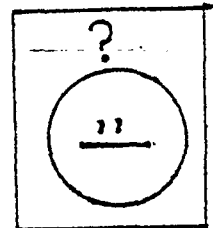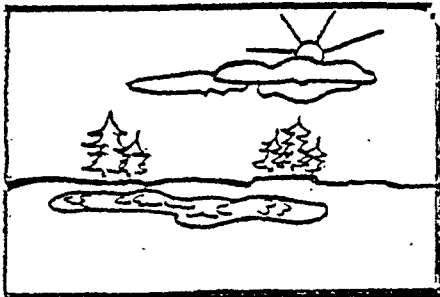
DOES THE "MAGIC 5 W", "WHO", TALK ABOUT THE PLACE SOMETHING HAPPENS, OR DOES IT TALK ABOUT A PERSON?

6.
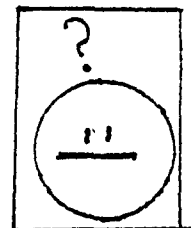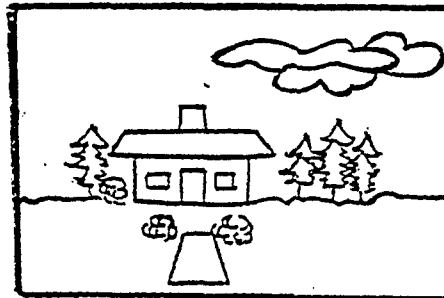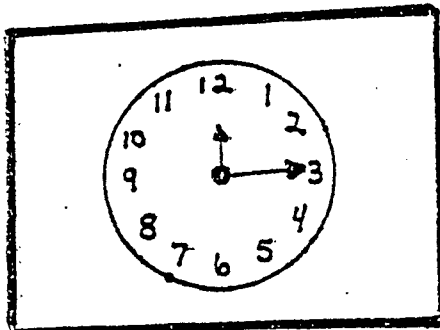
DOES THE "MAGIC 5 W", "WHERE", TALK ABOUT THE TIME, OR DOES IT TALK ABOUT THE PLACE SOMETHING HAPPENS?

7.
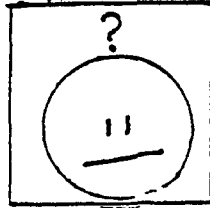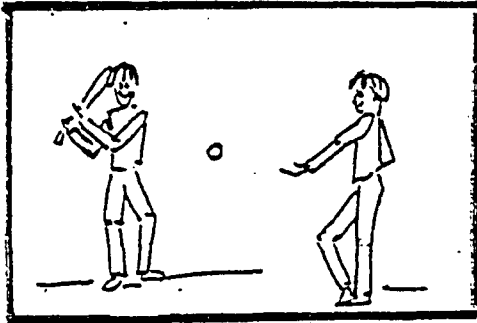
THE "MAGIC 5" ACTORS PLAYED A GAME TO WARM UP THEIR IMAGINATIONS. IN THIS GAME DID THEY PRETEND TO PLAY BASEBALL, OR DID THEY SING, OR DID THEY PRETEND TO PULL A ROPE?

8.
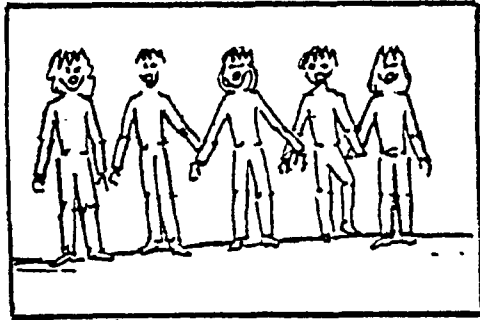
THE "MAGIC 5" ACTORS SHOWED US HOW TO MAKE A HISTORY STORY "COME ALIVE". HOW DID THEY DO THIS? DID THEY ACT OUT THE STORY AND PRETEND THEY WERE THE PEOPLE IN THE HISTORY STORY PADDLING A CANOE, OR DID THEY SIT AROUND AND TALK ABOUT THE HISTORY?
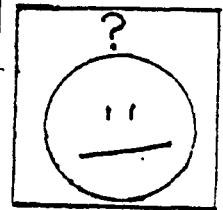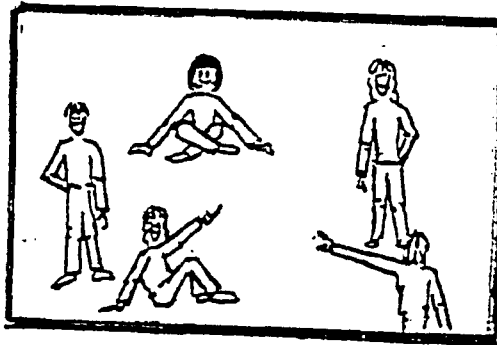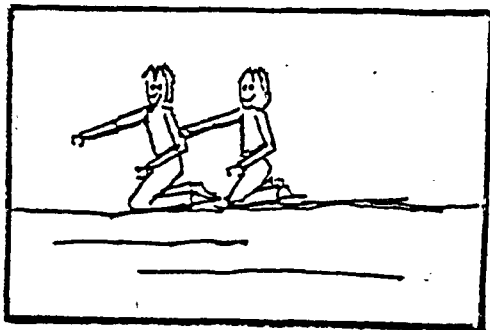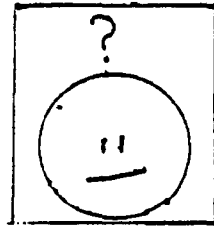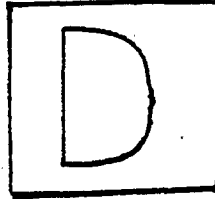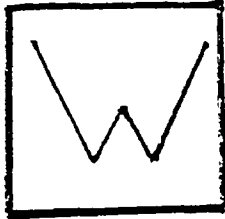
"THE MAGIC 5 WORKSHOP" TALKED ABOUT A CITY THAT IS VERY SPECIAL.
IS THIS SPECIAL CITY WINDSOR OR DETROIT?

10. WHICH ONE OF THESE BOXES IS NOT A PART OF TRANSPORTATION IN WINDSOR?
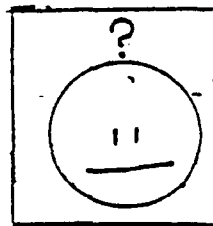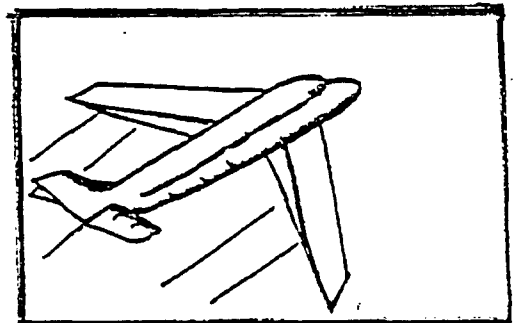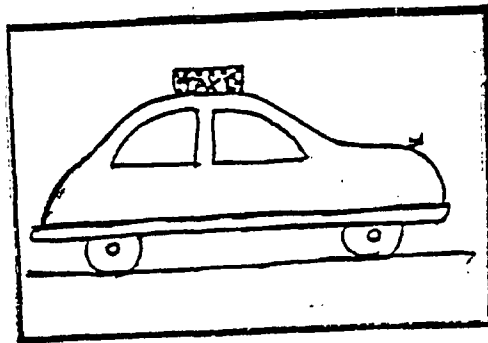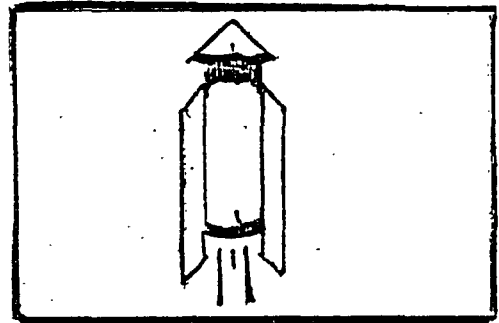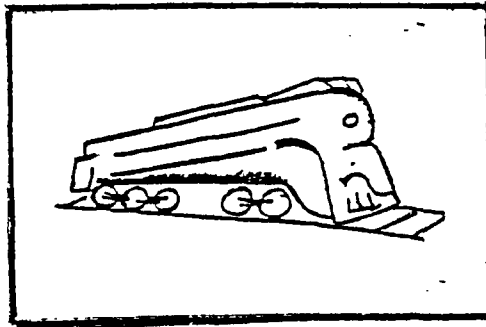
11. IS TRANSPORTATION USED ONLY BY MOMS AND DADS AND TEACHERS, OR IS IT USED BY EVERYONE?
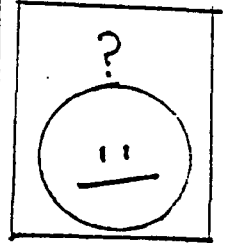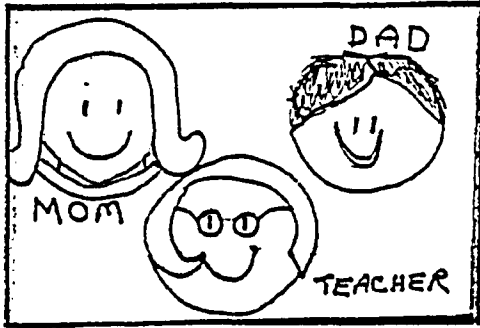
12. WHEN DO WE USE TRANSPORTATION, WHEN WE WANT TO PLAY BASEBALL (CATCH), OR DO WE USE IT WHEN WE GO TO SCHOOL?

WHAT IS THE MOST IMPORTANT THING THAT "THE MAGIC 5 WORKSHOP" IS ALL
ABOUT? IS IT ABOUT TALKING TO FRIENDS, OR IS IT ABOUT ASKING
QUESTIONS AND USING YOUR IMAGINATION?

254.
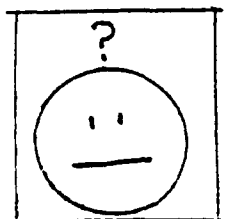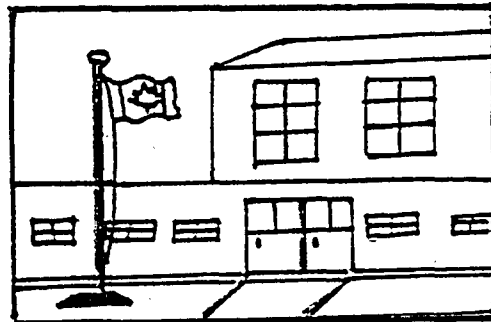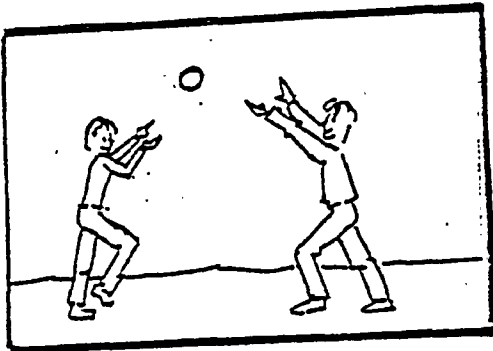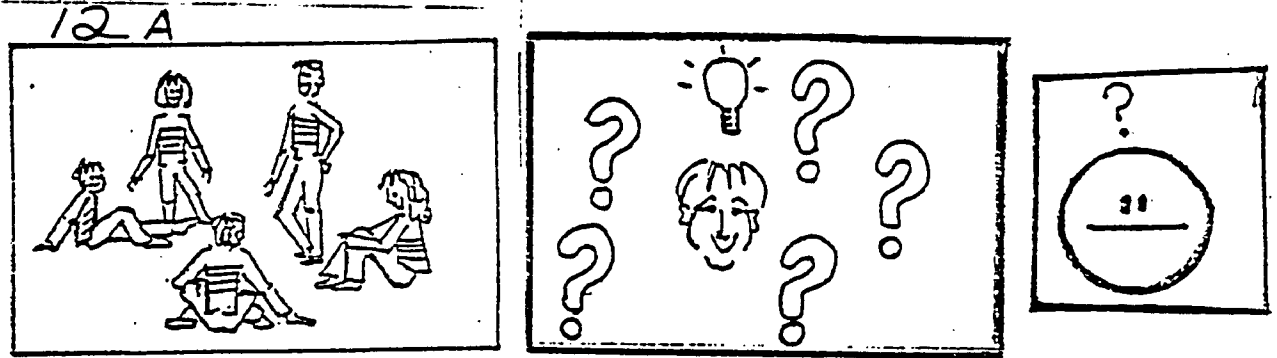
CIRCLE THE PART OF THE SHOW YOU LIKED. PUT AN X THROUGH THE PART
YOU DID NOT LIKE. IF YOU DON"T FEEL STRONGLY EITHER WAY, DON'T
PUT ANY MARKS ON THE PAPER.

13.
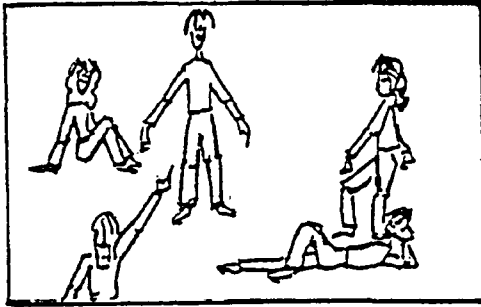
SITTING TALKING

14.

ROPE GAME

15.
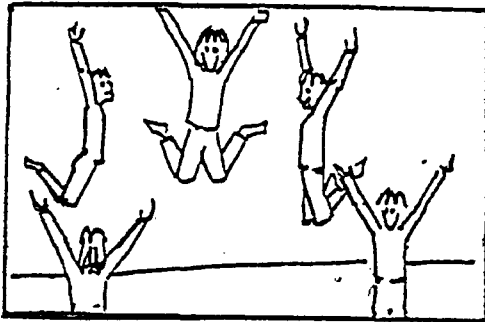
CHEERING

16.

PRETENDING TO BE A BUS

17.
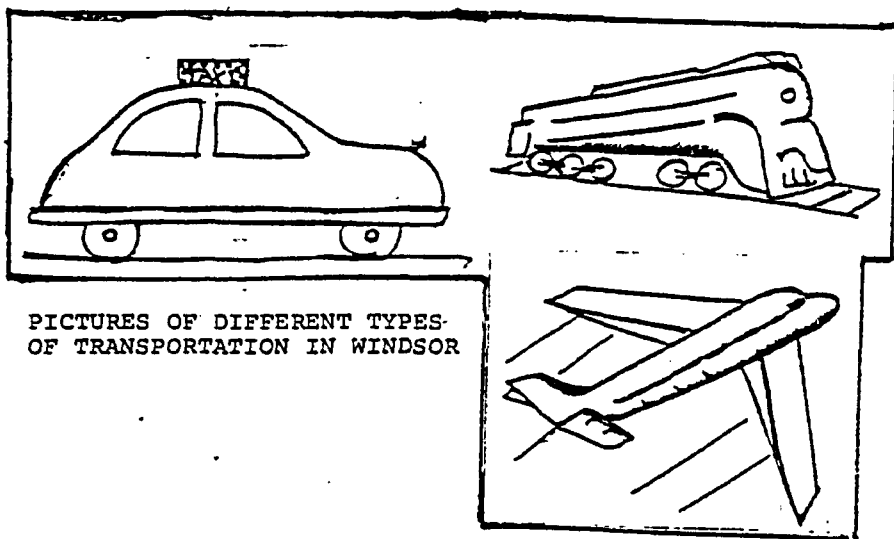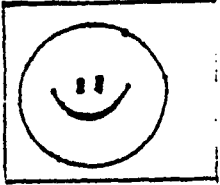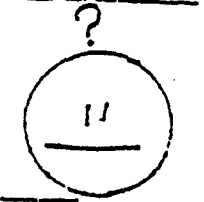
PICTURES OF DIFFERENT TYPES
OF TRANSPORTATION IN WINDSOR

18.
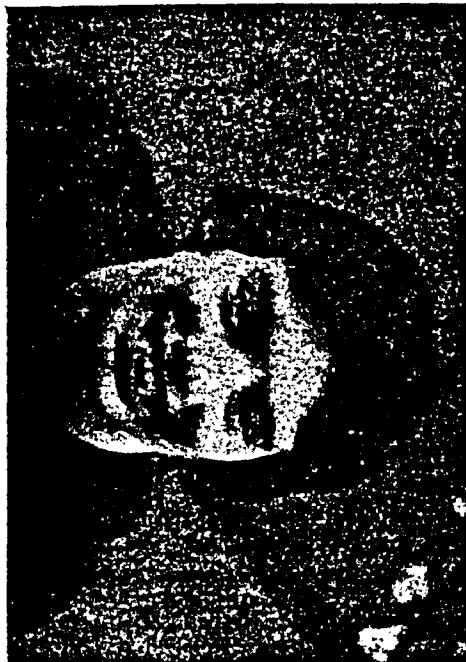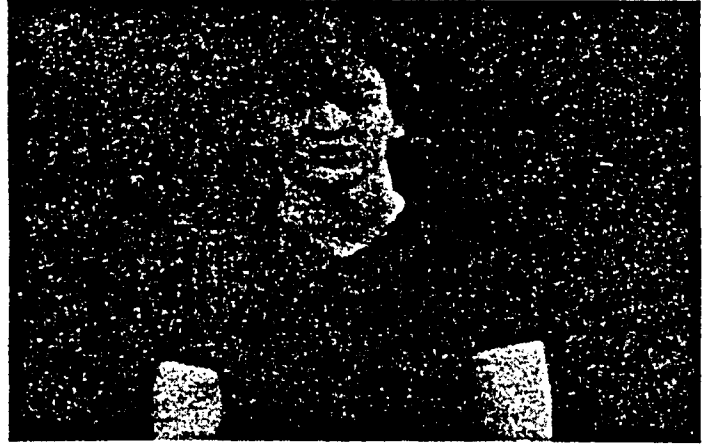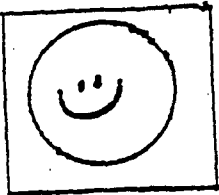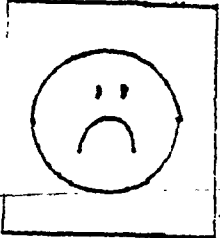
CIRCLE THE ACTOR YOU LIKED.   PUT AN X THROUGH   THE ACTOR YOU DISLIKED.
IF YOU DON'T FEEL STRONGLY EITHER WAY, DON'T PUT ANY MARKS ON THE PAGE.
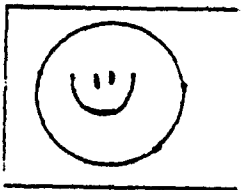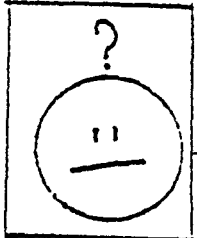
A.

YES   NO   I DON'T KNOW
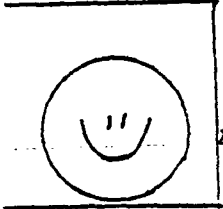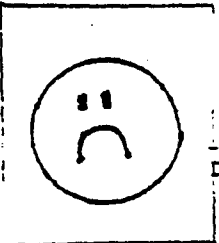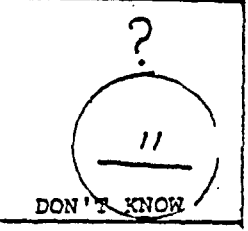
DID YOU LIKE THE PROGRAM?

B.

WOULD YOU WATCH IT AT HOME?

C.

WOULD YOU TELL A FRIEND TO WATCH?

TEACHERS BRING TV TO CLASS SO THAT WE CAN PLAY AND NOT READ SO MUCH.

D.   AGREE   DISAGREE   DON'T KNOW

I LIKE TO WATCH TV IN CLASS BECAUSE I CAN LEARN MORE THINGS.

AGREE   DISAGREE   DON'T KNOW

E.

I LIKE TO WATCH TV IN CLASS BECAUSE THEN I DON'T HAVE TO WORK
SO HARD.

F.
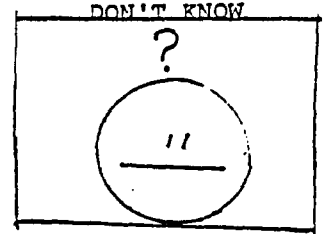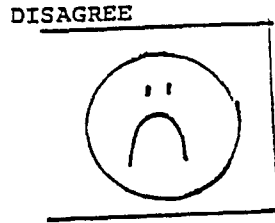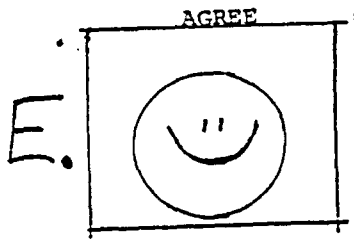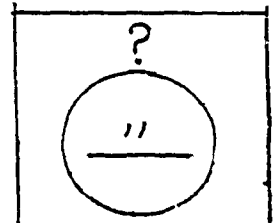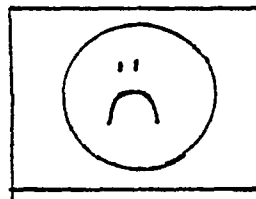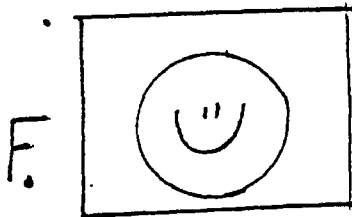
HOW MUCH TV DO YOU WATCH WHEN YOU ARE AT HOME?

G.
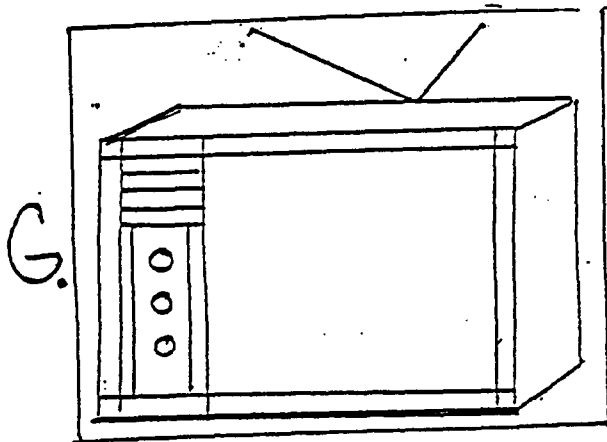
A LITTLE

A LOT
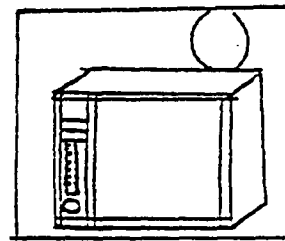
APPENDIX 4b

DIFFERENCES IN QUESTIONS ON
POST TEST FOR SITE #2, SACRED HEART SCHOOL
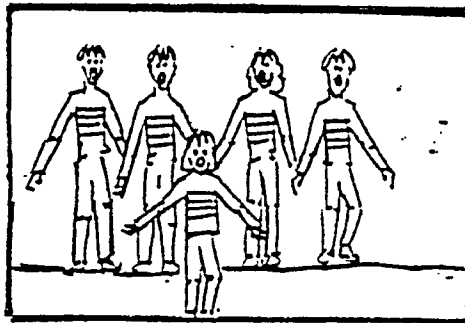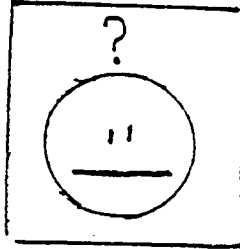
7A

BASIC RECALL QUESTION: WHAT DID THE SECOND ACTOR
TAKE OUT OF THE BOX?

8A
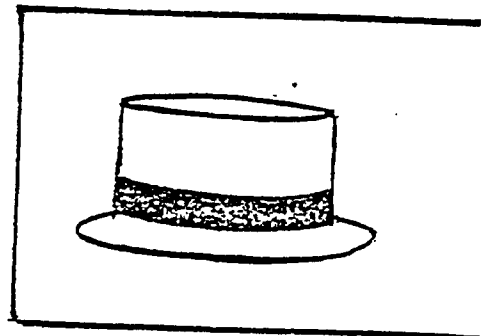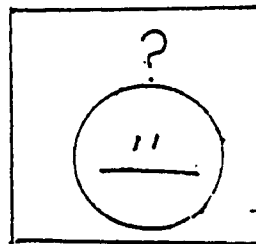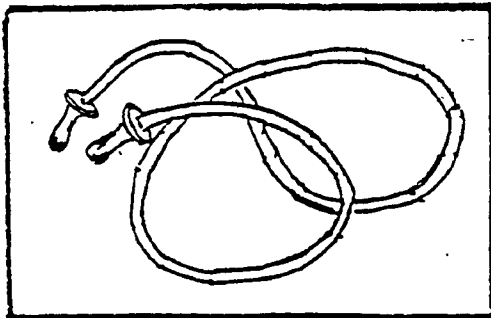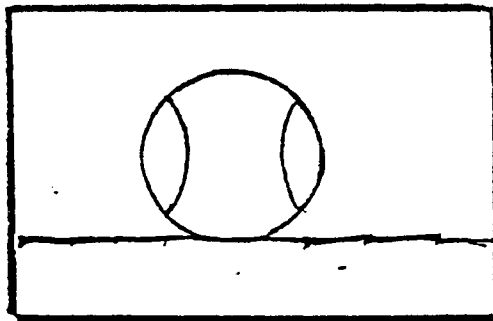
7B.

BASIC RECALL QUESTION: WHAT DID THE ACTORS DO FIRST
TO GET READY TO MAKE THE STORY "COME ALIVE"?
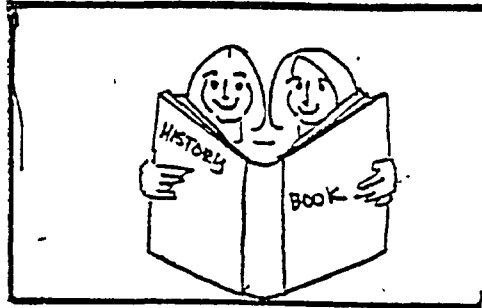
DID THEY SIT AROUND AND   OR   DID THEY LOOK IN A BOOK?
TALK ABOUT IT?
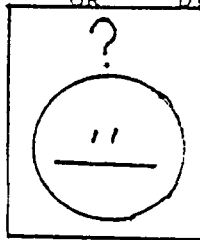
8B.
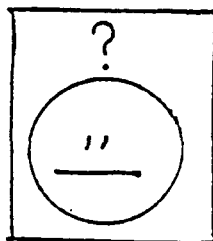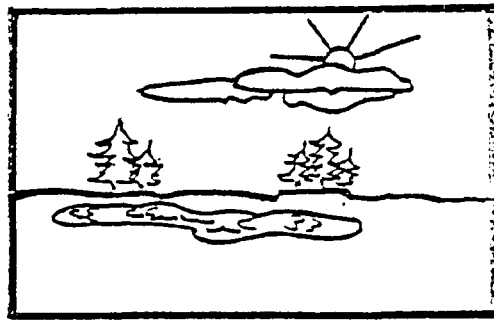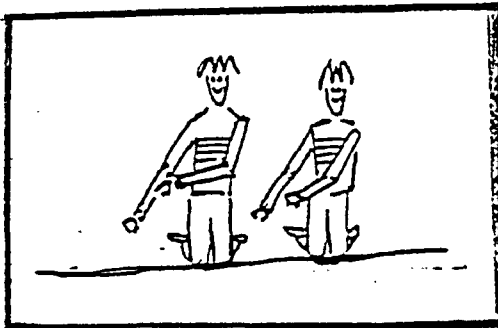
13.

WHO?
WHAT?
WHERE?
WHEN?
WHY?

DID YOU LIKE THE OPENING OF
THE SHOW?

14.

DID YOU LIKE THE POINT WHERE THE
ACTORS WERE SITTING AROUND
TALKING?

15.
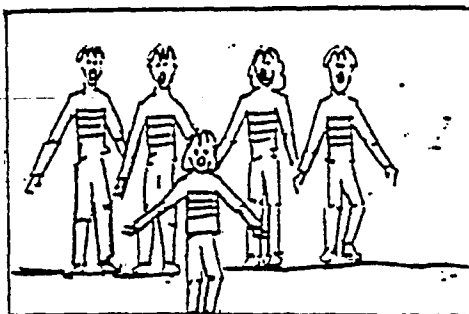
DID YOU LIKE THE PART WHERE THE
THE ACTORS WERE SINGING?

16.

DID YOU LIKE THE PART WHERE
THE ACTORS PRETENDED TO PULL
THE ROPE?

DID YOU LIKE THE PART WHERE THE ACTORS PLAYED "WHAT'S IN THE BOX"?

17.

262.
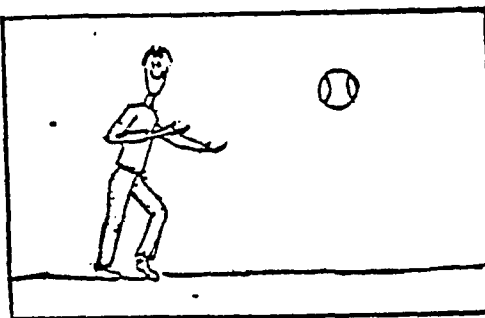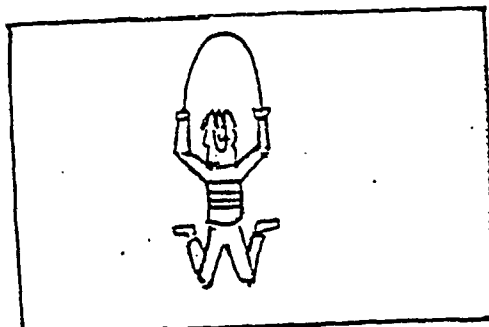
18.
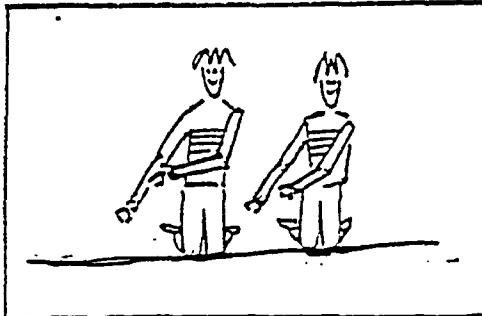
DID YOU LIKE THE PART WHERE THE
ACTORS MADE THE STORY COME ALIVE?

19.
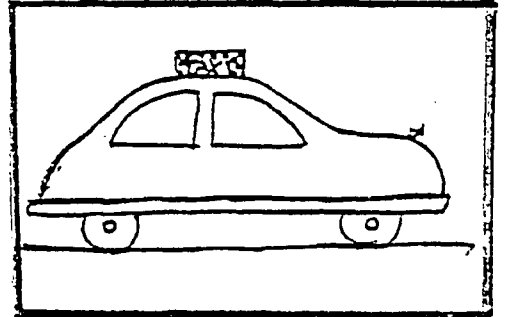
DID YOU LIKE THE PART ABOUT THE CARS?

20.
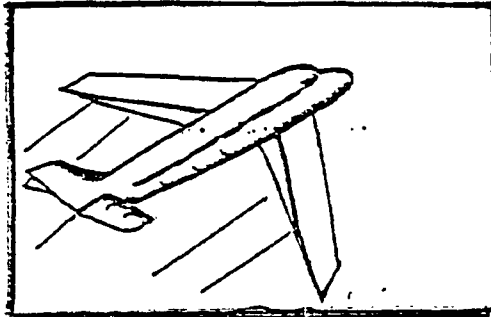
DID YOU LIKE THE PART ABOUT THE
PLANES?

21.
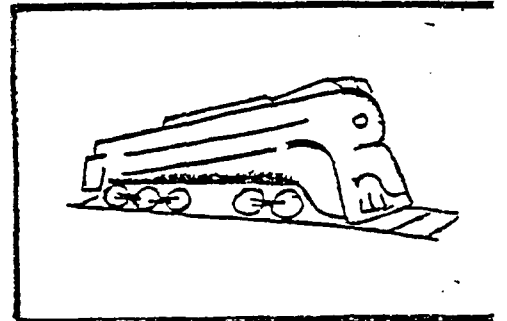
DID YOU LIK THE PART ABOUT THE
TRAINS?

22

DID YOU LIKE THE PART ABOUT
"HIGHWAY 18"?

23.
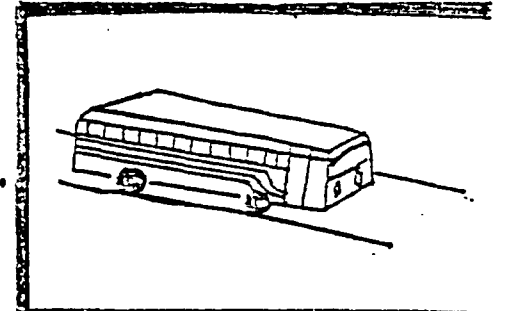
DID YOU LIKE THE PART ABOUT THE
BUSES?

24.
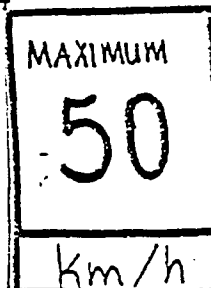
DID YOU LIKE
THE PART ABOUT
THE SIGNS?

263.

CIRCLE THE ACTOR YOU LIKED.   PUT AN X THROUGH THE ACTOR YOU DISLIKED.
IF YOU DON'T FEEL STRONGLY EITHER WAY, DON'T PUT ANY MARKS ON THE PAGE.

APPENDIX 4c

POST-TEST FOR SITE. #3, ST. JUDE SCHOOL

GRADE: _____ M E SCHOOL: _____

1.

2.

STOP
WITH
WAIT
WHY
GO

UP
DOWN
SIT
WALK
WATER

WHO
WHAT
WHERE
WHEN
WHY

3.

BIG
BOOK

4.

5.

6.

7 B.

8 B.
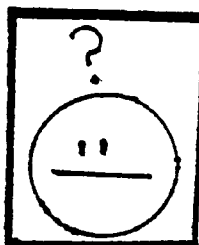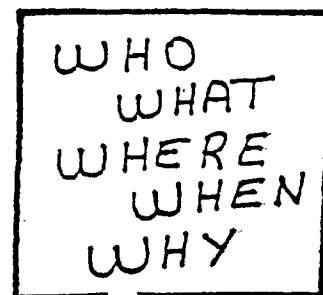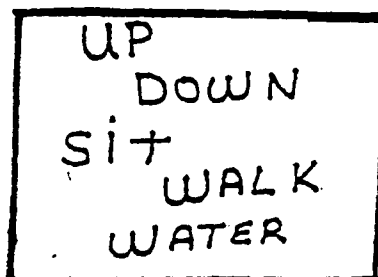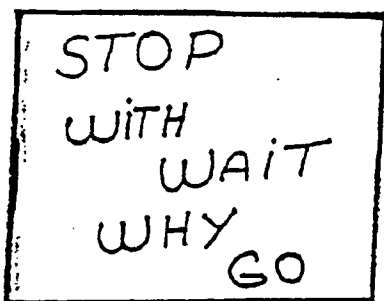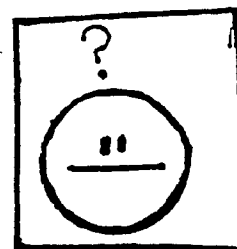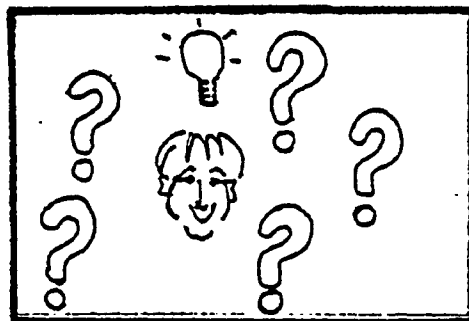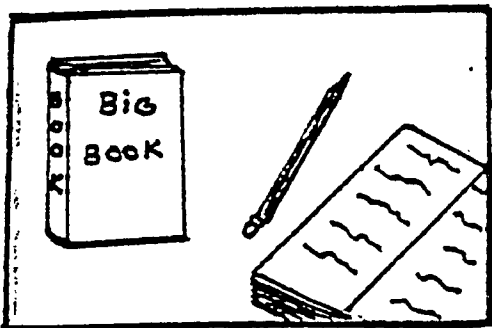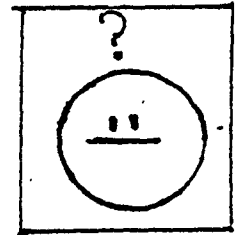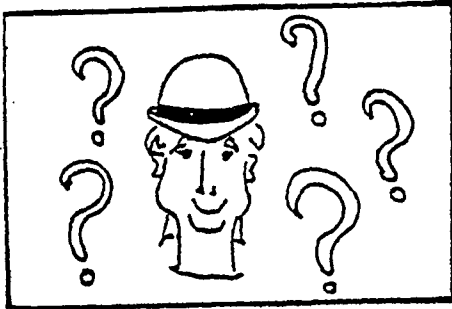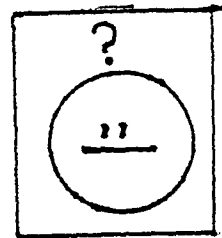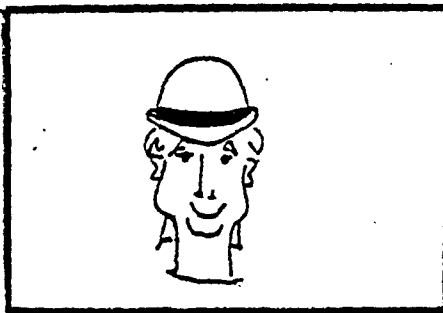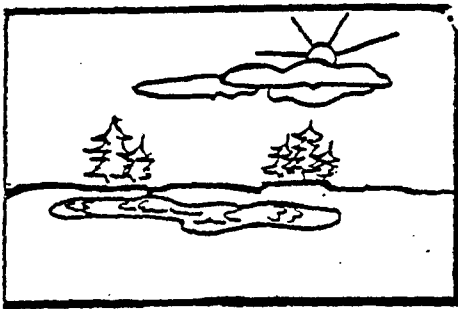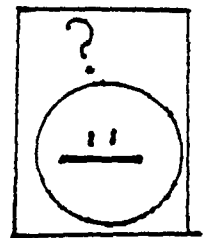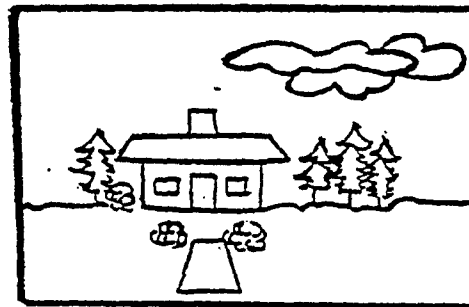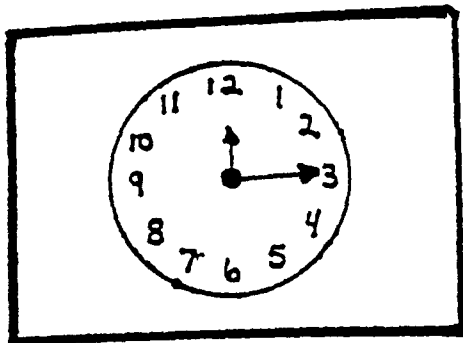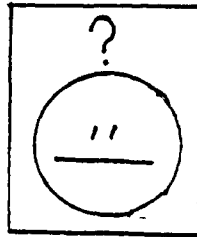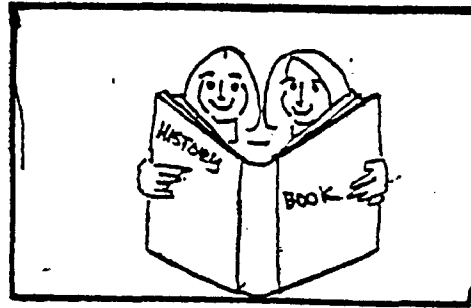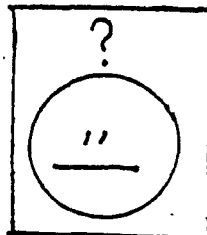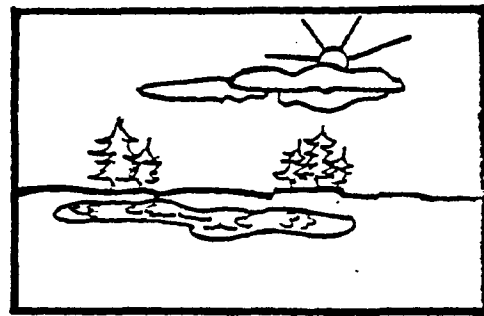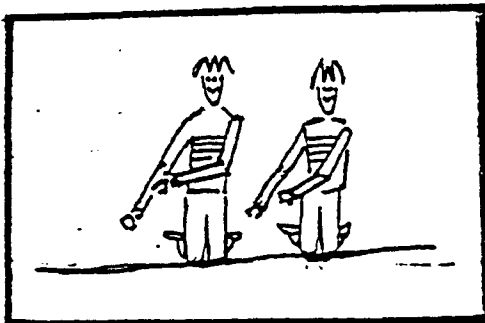
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18. HIGHWAY 18

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20. McDonald's

MAXIMUM
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km/h
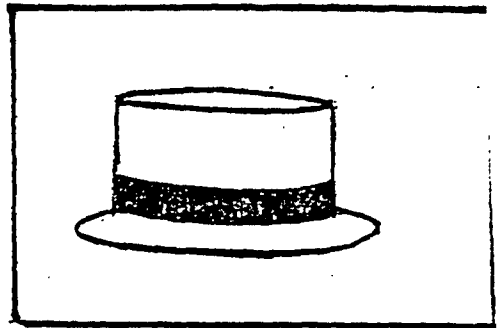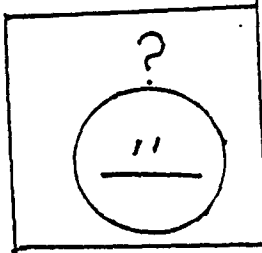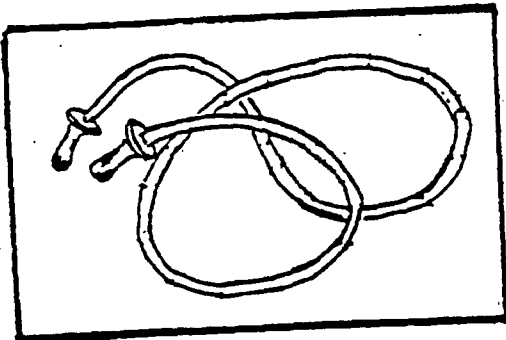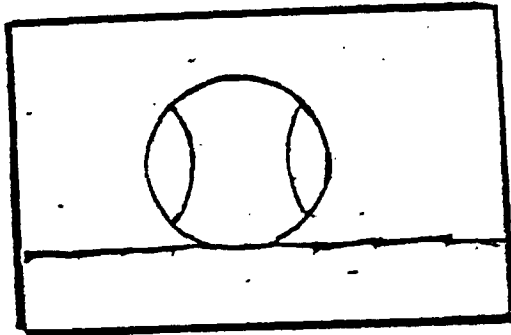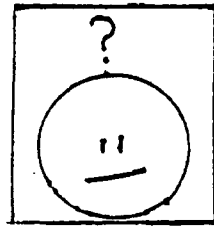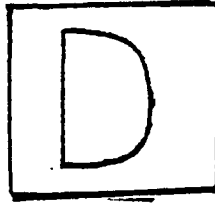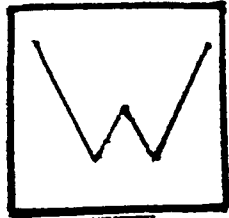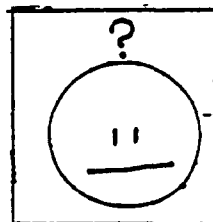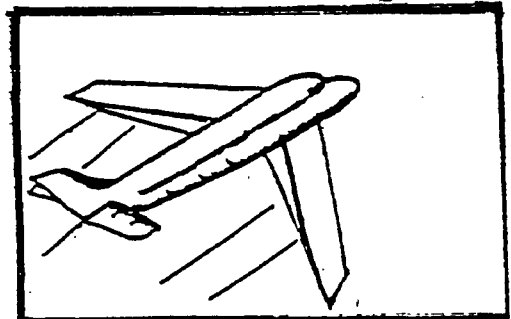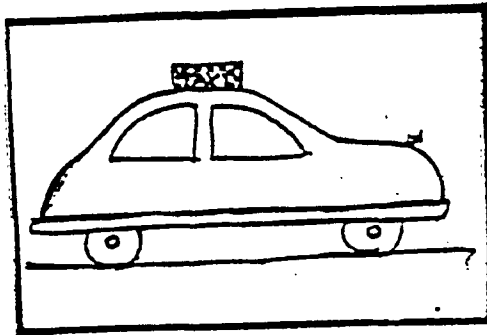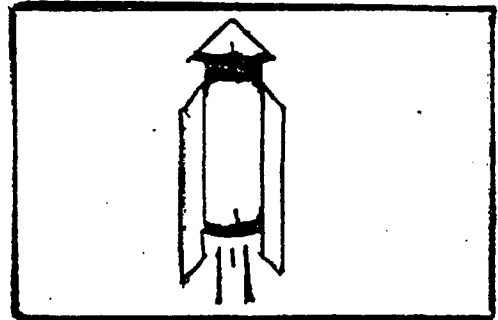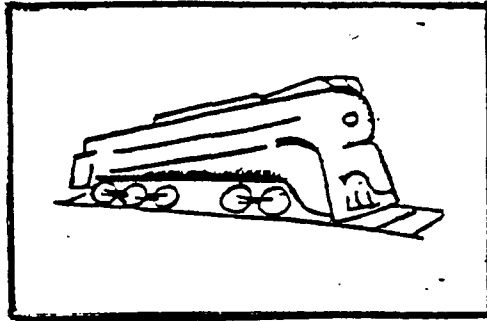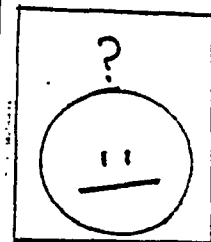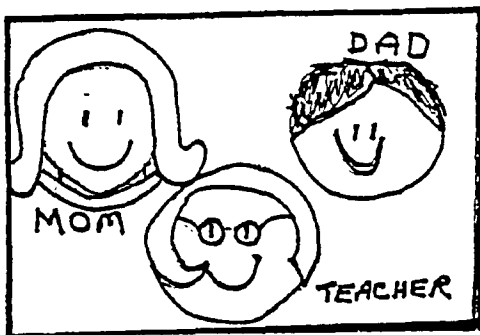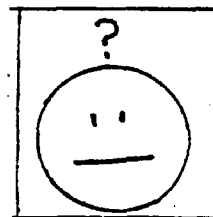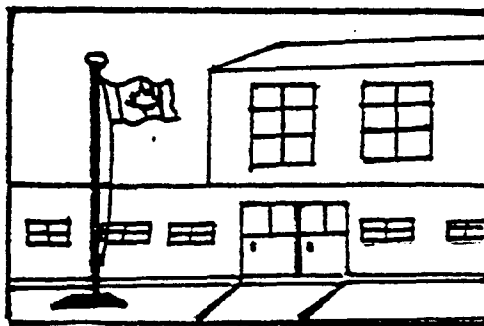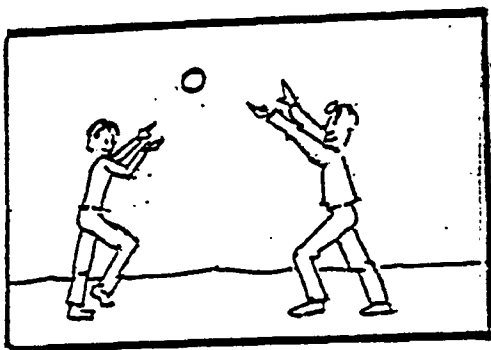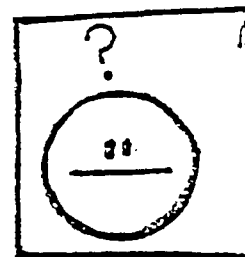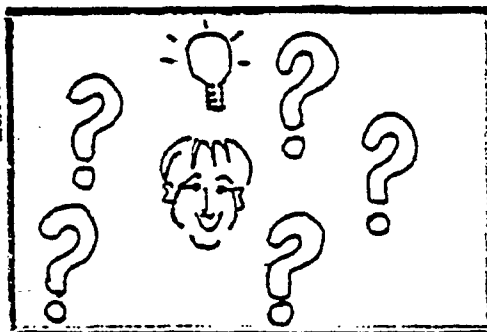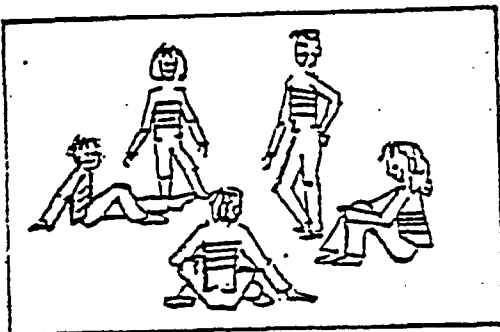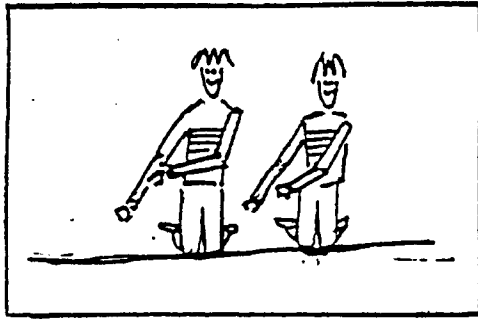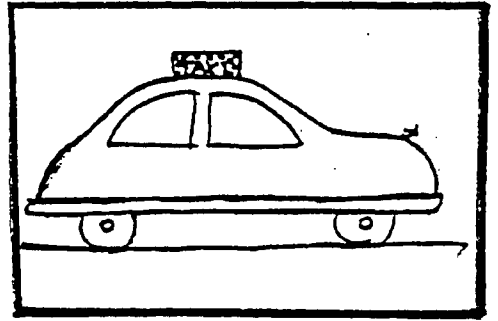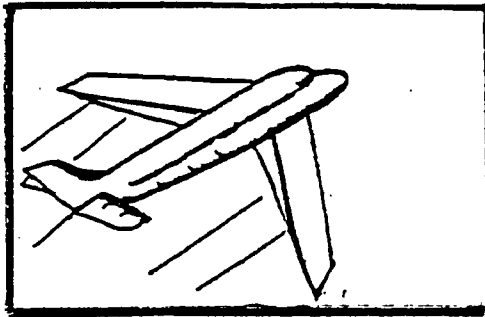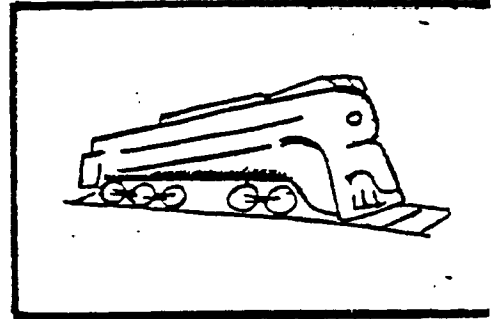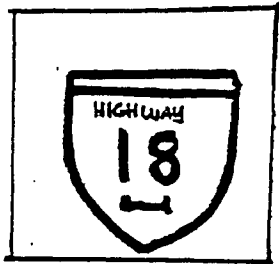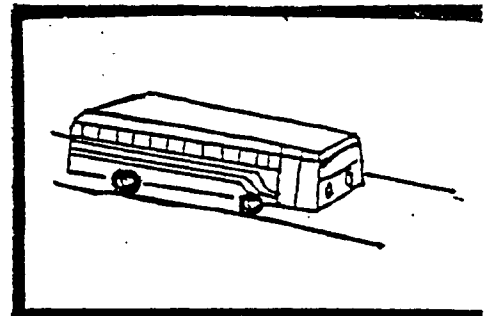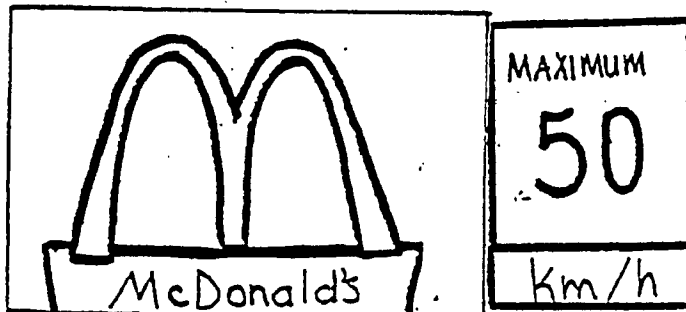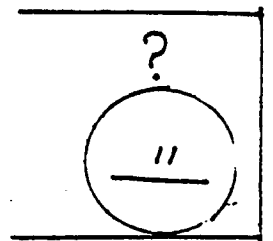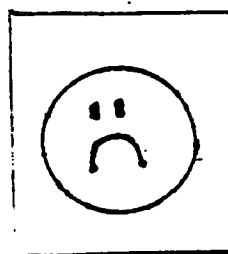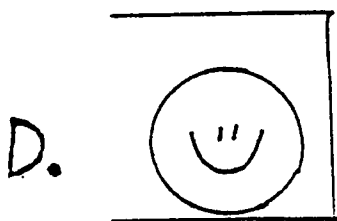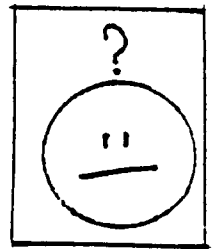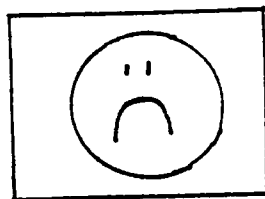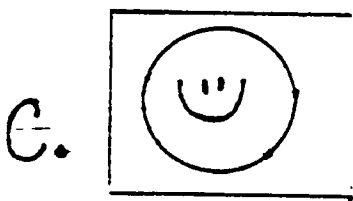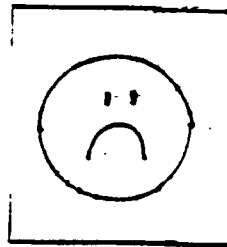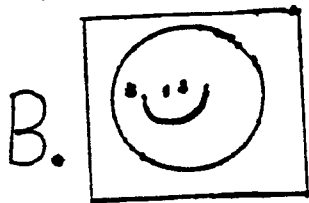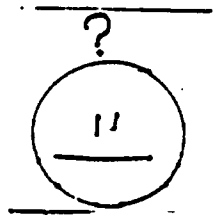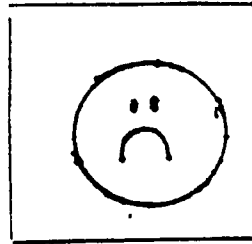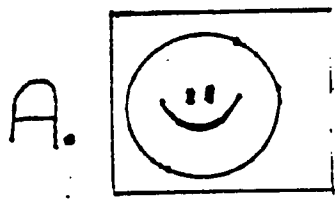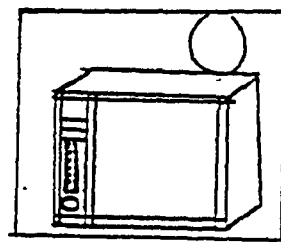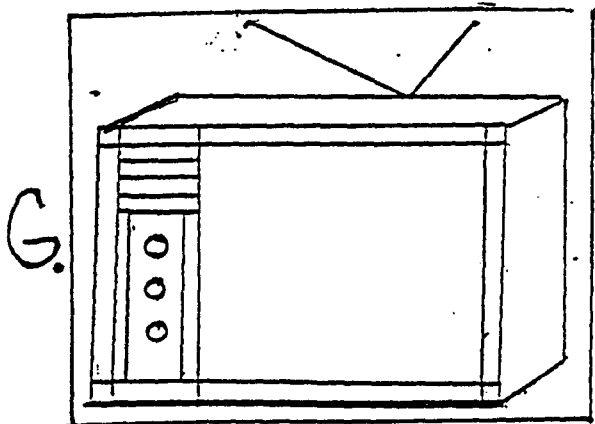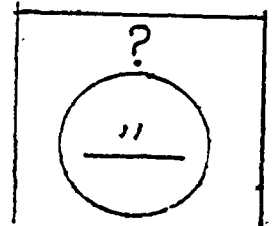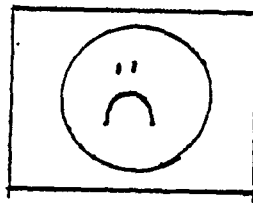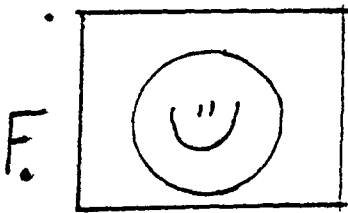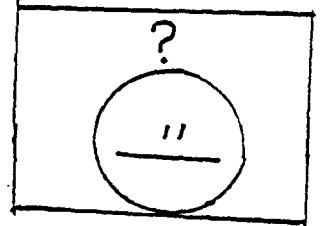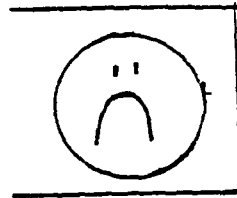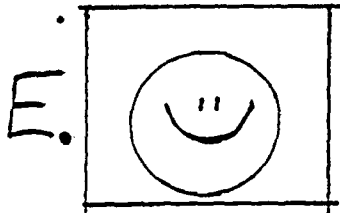
APPENDIX 5a

ATTENTION BEHAVIOUR OBSERVATION SHEET
    FOR SITE #1, IMMACULATE CONCEPTION SCHOOL

275.

KEY TO ATTENTION OBSERVATION SHEET:

-ATTENTION (A):   EYES ON SET (ATTENTIVE VIEWING)

-CLOSE ATTENTION (CA): EYES ON SET (INTENSE VIEWING)

-NO ATTENTION (NA): EYES NOT ON SET

-MOTOR RESPONSE (MR): IN RELATION TO SOMETHING ON THE SET

-INTERACTION WITH PEER (IP): (WITH ANOTHER INDIVIDUAL) IN RELATION T
                              SOMETHING ON THE SET

-INTERACTION WITH TELEVISION (IT): IN RELATION TO CONTENT OTHER THAN
                                    FIVE W'S, HISTORY STORY AND TRANS
                                    PORTATION SEQUENCES.

-GAME RESPONSE (GR): SPECIFIC REACTIONS TO THE ROPE GAME SEQUENCE (I.
                      MIMICKING THE PULLING OF THE ROPE, CHEERING)

-CHEER RESPONSE (CR): SPECIFIC REACTIONS TO THE TRANSPORTATION CHEER(
                       JOINING IN THE CHEER)

-SEQUENCE RESPONSE (SR): SPECIFIC REACTIONS TO THE TRANSPORTATION SEQ
 (CHANGE TO LOCATION   (I.E. ANYTHING THAT THEY SAY THAT INDICATES
 RESPONSE IN THESIS   THEY EITHER RECOGNIZE THE VEHICLES IN THE SE
 SHOW)   OR THAT THEY HAVE HAD EXPERIENCE WITH THEM,
                          "I WENT FOR A RIDE IN A TRAIN ONCE."

-SMILE (S): IN RELATION TO SOMETHING ON THE SET

-LAUGH (L): IN RELATION TO SOMETHING ON THE SET

One level of attention (CA or A or NA) plus one or any combination of
responses (if observed) may be recorded for each child for each segmen
or part thereof.

        LOCATION RESPONSE (LR): SPECIFIC REACTIONS AS PER THE ABOVE DE
                                 TION.
        STORY RESPONSE (SR): SPECIFIC REACTIONS TO THE CONTENT OF THE
                              HISTORY STORY.

PROGRAM

SCHOOL: IMMACULATE CONCEPTION   GRADE: _____

     SITE #1   OBSERVER: _____

     COST 40-505 PROGRAM

SEGMENT NAME	ENDS WITH WORDS/PICTURE	1 M	F	2 M	F	3 M	F
1. OPENING AND INTRO-DUCTION OF PROGRAM	ENDS WITH PICTURE: ALL FIVE CHARACTERS SIT ON FLATFORM.	CA A NA MR S L IT IP		CA A NA MR S L IT IP		CA A NA MR S L IT IP	
2. EXPLANATION OF HOW THE "MAGIC 5" ARE USED.	ENDS WITH WORDS: MALE CHARACTER SAYS: "IMAGI-NATION."	CA A NA MR S L IT IP		CA A NA MR S L IT IP		CA A NA MR S L IT IP	
3. THE ROPE GAME.	ENDS WITH WORDS: MALE CHARACTER SAYS: "YEAH!" (CHARACTER HAS FALLEN TO FLOOR)	CA A NA MR S L IT GR IP		CA A NA MR S L IT GR IP		CA A NA MR S L IT GR IP	
4. THE HISTORY STORY.	ENDS WITH WORDS: MALE CHARACTER SAYS:	CA A NA MR S L IT SR IP		CA A NA MR S L IT SR IP		CA A NA MR S L IT SR IP	

ATTENTION OBSERVATION SHEET

SCHOOL: IMMACULATE CONCEPTION

GRADE:

OBSERVER:

SEGMENT NAME	ENDS WITH WORDS/PICTURE	M	1	F	M	2	F	M	3	F
5. INTRODUCTION TO TRANS-PORTATION AND CHEER.	ENDS WITH PICTURE: ALL CHARACTERS SIT ON PLAT-FORM.	CA MR IT	A S CR	NA L IP	CA MR IT	A S CR	NA L IP	CA MR IT	A S CR	NA L IP
6. MIME OF DIFFERENT MODES OF TRANSPORTATION.	ENDS WITH WORDS: FEMALE CHARACTER SAYS: "........COULD INDICATE DANDRUFF."	CA MR IT	A S	NA L IP	CA MR IT	A S	NA L IP	CA MR IT	A S	NA L IP
7. SUMMARY OF USE OF FIVE W'S WITH TRANSPORTATION.	ENDS WITH WORDS: FEMALE CHARACTER SAYS: "WELL, THAT'S WHAT IT'S ALL ABOUT, TRANSPORTATION, NOW HERE'S MORE."	CA MR IT	A - S	NA L IP	CA MR IT	A S	NA L IP	CA MR IT	A S	NA L IP
8. TRANSPORTATION SEQUENCES	ENDS WITH PICTURE: ALL FIVE CHARACTERS WALK TOWARD CAMERA.	CA MR IT	A S SR	NA L IP	CA MR IT	A S SR	NA L IP	CA MR IT	A S SR	NA L IP

ATTENTION OBSERVATION SHEET

SCHOOL: IMMACULATE CONCEPTION

GRADE:

OBSERVER:

SEGMENT NAME	ENDS WITH WORDS/PICTURE	1			2			3		
		M		F	M		F	M		F
9. SUMMARY AND CLOSING.	ENDS WITH PICTURE FADING TO BLACK.	CA	A	NA	CA	A	NA	CA	A	NA
		MR	S	L	MR	S	L	MR	S	L
		IT		IP	IT		IP	IT		IP

APPENDIX 5b

ATTENTION BEHAVIOUR OBSERVATION SHEET
FOR SITE #2 SACRED HEART SCHOOL

KEY TO ATTENTION OBSERVATION SHEET:

-ATTENTION (A): EYES ON SET (ATTENTIVE VIEWING)

-CLOSE ATTENTION (CA): EYES ON SET (INTENSE VIEWING)

-NO ATTENTION (NA): EYES NOT ON SET

-MOTOR RESPONSE (MR): IN RELATION TO SOMETHING ON THE SET

-INTERACTION WITH PEER (IP): (WITH ANOTHER INDIVIDUAL) IN RELATION T SOMETHING ON THE SET

-INTERACTION WITH TELEVISION (IT): IN RELATION TO CONTENT OTHER THAN FIVE W'S, HISTORY STORY AND TRANS PORTATION SEQUENCES.

-GAME RESPONSE (GR): SPECIFIC REACTIONS TO THE ROPE GAME SEQUENCE (I. MIMICKING THE PULLING OF THE ROPE, CHEERING)

-CHEER RESPONSE (CR): SPECIFIC REACTIONS TO THE TRANSPORTATION CHEER(JOINING IN THE CHEER)

-SEQUENCE RESPONSE:(SR): SPECIFIC REACTIONS TO THE TRANSPORTATION SEQ (CHANGE TO LOCATION RESPONSE IN THESIS SHOW) (I.E. ANYTHING THAT THEY SAY THAT INDICATES THEY EITHER RECOGNIZE THE VEHICLES IN THE SE OR THAT THEY HAVE HAD EXPERIENCE WITH THEM, "I WENT FOR A RIDE IN A TRAIN ONCE."

-SMILE (S): IN RELATION TO SOMETHING ON THE SET

-LAUGH (L): IN RELATION TO SOMETHING ON THE SET

One level of attention (CA or A or NA) plus one or any combination of responses (if observed) may be recorded for each child for each segmen or part thereof.

LOCATION RESPONSE (LR): SPECIFIC REACTIONS AS PER THE ABOVE DE TION.

STORY RESPONSE (SR): SPECIFIC REACTIONS TO THE CONTENT OF THE HISTORY STORY.

SCHOOL: _____ SACRED HEART SCHOOL _____   OBSERVER_____

SEGMENT NAME	ENDS WITH WORDS/PICTURE	1 M	F	2 M	F	3 M	F
1. OPENING GRAPHICS---INTRO OF "MAGIC 5 W'S"	WORDS: "THE MAGIC 5 W'S YEA!!" PICTURE: GRAPHIC OF WORD WHY ON SCREEN	CA A NA MR S L IT IP		CA A NA MR S L IT IP		CA A NA MR S L IT IP	
2. INTRODUCTION OF CAST AND FIRST HALF OF "QUESTION SONG".	WORDS: CHARACTER WITH WORD "WHY" ON T-SHIRT SAYS "AND HERE'S HOW THEY WORK".	CA A NA MR S L IT IP		CA A NA MR S L IT IP		CA A NA MR S L IT IP	
3. SHOWING HOW THE "MAGIC 5" WORK AND ENDING OF "QUES-TION SONG".	PICTURE: CAST ALL SITS DOWN TOGETHER AND THERE IS A QUICK FADE TO BLACK.	CA A NA MR S L IT IP		CA A NA MR S L IT IP		CA A NA MR S L IT IP	
4. FURTHER DISCUSSION OF HOW THE "MAGIC 5" WORK AND INTRO TO IMAGINATION GAMES	WORDS: ...LET'S PLAY SOME GAMES THAT WILL HELP US WARM-UP OUR IMAGINATIONS....	CA A NA MR S L IT IP		CA A NA MR S L IT IP		CA A NA MR S L IT IP	

ATTENTION OBSERVATION SHEET

SCHOOL: _____   OBSERVER: _____

SEGMENT NAME	ENDS WITH WORDS/PICTURE	1 M	1 F	2 M	2 F	3 M	3 F
5. FIRST IMAGINATION GAME "THE ROPE GAME"	WORDS: FEMALE CHARACTER SAYS: "HOW DO YOU SEE THE ROPE?" MALE CHARACTER SAYS: "YEAH!"	CA A NA / MR S L / IT GR IP		CA A NA / MR S L / IT GR IP		CA A NA / MR S L / IR GR IP	
6. SECOND IMAGINATION GAME "WHAT'S IN THE BOX"	WORDS: FEMALE CHARACTER "I'VE GOT IT RIGHT THIS TIME, IT'S A ROWBOAT!"	CA A NA / MR S L / IT GR IP		CA A NA / MR S L / IT GR IP		CA A NA / MR S L / IT GR IP	
7. INTRO TO HISTORY STORY	WORDS: FEMALE CHARACTER "WATCH HOW WE DO IT AND YOU CAN LEARN TO DO IT TO."	CA A NA / MR S L / IT IP		CA A NA / MR S L / IT IP		CA A NA / MR S L / IT IP	
8. PRESENTATION OF HISTORY STORY USING "5 W'S" AS KEY	WORDS: FEMALE CHARACTER "LET'S USE OUR BRAND NEW TOOLS TO FIND OUT ABOUT TRANSPORTATION IN WINDSOR."	CA A NA / MR S L / IT SR IP		CA A NA / MR S L / IT SR IP		CA A NA / MR S L / IT SR IP	

282.

ATTENTION OBSERVATION SHEET

SCHOOL:_____   OBSERVER:_____

SEGMENT NAME	ENDS WITH WORDS/PICTURES	1 M		F	2 M		F	3 M		F
9. TRANSPORTATION CHEER TO INTRO TO OUTSIDE SEGMENTS.	WORDS: FEMALE CHARACTER "NOW, LET'S GO OUTSIDE AND FIND OUT MORE ABOUT HOW PEOPLE TRAVEL IN WINDSOR."	CA MR IT	A S CR	NA L IP	CA MR IT	A S CR	NA L IP	CA MR IT	A S CR	NA L IP
10. PEOPLE AND CARS	WORDS: FEMALE CHARACTER "WINDSOR IS THE CAR CAPITAL OF CANADA."	CA MR IT	A S LR	NA L IP	CA MR IT	A S LR	NA L IP	CA MR IT	A S LR	NA L IP
11. WHAT MAKES UP TRANSPORTATION.	WORDS: MALE CHARACTER "....BUT A LONG TIME AGO IT WAS JUST A DUST COVERED INDIAN PATH."	CA MR IT	A S LR	NA L IP	CA MR IT	A S LR	NA L IP	CA MR IT	A S LR	NA L IP
12. WHERE DOES TRANSPORTATION TAKE YOU IN WINDSOR?	PICTURE: PLANE IS SEEN FLYING OUT OF FRAME AT UPPER RIGHT HAND CORNER OF TV SCREEN.	CA MR IT	A S LR	NA L IP	CA MR IT	A S LR	NA L IP	CA MR IT	A S LR	NA L IP

283.

ATTENTION OBSERVATION SHEET

SCHOOL:_____   OBSERVER:_____

SEGMENT NAME	ENDS WITH WORDS/PICTURE	1 M		F	2 M		F	3 M		F
13. TRANSPORTATION AND BUSES.	PICTURE: SHOT OF BUS PULLING AWAY FROM THE CURB.	CA MR IT	A S LR	NA L IP	CA MR IT	A S LR	NA L IP	CA MR IT	A S LR	NA L IP
14. SIGNS ARE IMPORTANT TO TRANSPORTATION.	PICTURE: SHOT OF McDONALD'S SIGN.	CA MR IT	A S LR	NA L IP	CA MR IT	A S LR	NA L IP	CA MR IT	A S LR	NA L IP
15. SUMMARY TO CLOSING.	PICTURE: FADE TO BLACK	CA MR IT	A S	NA L IP	CA MR IT	A S	NA L IP	CA MR IT	A S	NA L IP

284.

APPENDIX 6

POST-VIEWING INTERVIEW QUESTION SHEETS
FOR SITES #1 AND #2

INDIVIDUAL INTERVIEW QUESTION SHEET FOR SITES #1 & 2

Try to be as brief as possible with this interview and do not spend too much time on any one question. We only have be- tween 5 to 8 minutes with each child so if the child does not seem to be able to answer (or appears reluctant to answer) any one ques- tion, go on to the next question. Whenever you sense that the child has finished with his/her response to any question you may go on to the next one. However, you should try to be sensitive to this point because if the child feels you have cut them off he/she may backoff for the rest of the interview. That's about it, have fun and good luck!

INTERVIEW STRUCTURE:

You will be assigned an area for the interview when we get to the schools and you will be responsible for taking your student to that area for the testing after he/she is finished with the classroom segment of the testing. Go to the area, strike up a con- versation with the child, explaining what is going to happen (if they ask) while you are setting up the tape recorder. Let the child talk into the tape recorder when you are doing the check to see if the volume and tone levels on the unit are properly adjusted. Play this short bit back for the child and this might help to put them at ease. WHEN YOU_____, MAKE SURE YOU INDICATE WHAT GRADE THEY YOU ARE TESTING AND WHETHER YOURSUBJECT IN MALE OR FEMALE.

Okay, at this point you be ready to start the interview and if you haven't done so already, introduce yourself to the child and explain to them briefly what is going to happen. I have taken the liberty of outlining this particular part of the introduction, feel free to use or not use it as you see fit. However, I would greatly appreciate if you could stick pretty close to the questions as they are outlined. If, while the interview is progressing, you think of a question that you feel may help to get a better response from the student, then by all means ask it. Just so long as you watch the time and get to the questions that I have already outlined. Again, I must point out that we do not need lengthy answers to these questions. Don't cut the children off but, don't let them go on forever either.

INTERVIEW QUESTIONS:

Hi, my name is _____and I just want to ask you some really special questions about the TV show we just watched in the classroom okay? It would really help me a lot if you can an- swer them for me alright? Okay, here goes.

(1) Did you like the show "The Magic 5 Workshop"? Receive response then probe why? or why not?

(2) Do you watch TV at home? They will probably answer yes, then ask, Do you watch TV a lot at home or just sometimes? If they should ask or seem confused, explain that "a lot" means things like do they watch in the morning before they come to school and then at lunch if they go home and then before and after they eat supper, etc.. Then ask them what kind of shows they like to watch? If they don't offer, ask for some names of the shows they like or if

that doesn't work, give them some examples like do they like cartoons or hero movies.

(3) Do you like to watch TV in your classroom? Why or why not?

(4) Does your teacher bring a TV to your classroom for the whole class to see something? Even if they answer no to this first part of the question go on to ask, Do you think that TV is good to use in the classroom? Why or why not? Also ask, When your teacher brings TV into the class for you to see, why do you think he/she does that?

(5) Now I'm going to show you some pictures of the Magic 5 Workshop actors and I want you to tell me which ones you liked and which ones you didn't like. If you didn't like anyone in the show or there is no person that you didn't like, then don't pick a picture at all. Show them the picture sheet and if they choose a character(s) then ask them, why did you or didn't you like that actor? (NOTE: IF THEY DO NOT CHOOSE ANY CHARACTER THAT THEY EITHER LIKE OR DISLIKE INDICATE THIS ON THE CHARACTER SHEET AND GO ON TO THE NEXT QUESTION). With this question, I am attempting to measure any identification or recognition on the part of the students with the characters in the shows. If they have chosen a character(s) this may show that they identify with or recognize that (those) character(s) as someone like someone they know in real life. So, it is necessary to probe a little further. If they have chosen a character(s), and you have asked them about this choice and if they do not say something that sounds like the following questions, then please use at least one of these following questions but especially (c).

IDENTIFICATION

(a) Do you like/not like this person because you would/would not like to be like them?

(b) Do you like/not like that person because he/she is is the hero/badguy?

RECOGNITION

(c) Is this person like someone you know? If they respond yes, then ask who that person is and if they can't give you an answer prompt with things like, Is he/she like your brother or sister? your mom or dad? your friend?

(6) This is the last question! Here I want you to show the student the picture with the different segments on it and ask them which ones they liked or didn't like. As they indicate their choices, circle those they liked and draw an X through the ones they didn't like. Briefly ask them why or why not about their choices. If you have time and if they have indicated that they liked certain parts better than others, try to find out if they liked these parts because they mention things that they could recognize, I.E. things in Windsor, experiences that they may have had with different types of transportation, something that was special to them that might indicate some kind of recognition.

CLOSING:

When you are finished, thank the student and tell that they have really helped you a lot and that they gave really good answers.

APPENDIX 7

PROGRAM RATING SHEETS
FOR SITES #1 AND #2

RATING SHEET

FOR TEACHER AT SITES #1 AND #2

To be completed _during_ viewing.

Please read these instructions _before_ viewing. Rate what _you_
-think of the entertainment value of each segment immediately
after viewing each one. Use the following rating system.

     5   Excellent

     4   Very Good

     3   Average

     2   Below Average

     1   Poor

     0   No Comment

Place the desired number in the appropriate box.

EXAMPLE:

SEGMENT NAME	ENDS WITH WORDS/PICTURE	RATING
1. OPENING AND INTRODUCTION OF PROGRAM.	ENDS WITH PICTURE: ALL FIVE CHARACTERS SIT ON PLATFORM.	4

290.

SITE #1

SCHOOL: IMMACULATE CONCEPTION   GRADE:_____

SEGMENT NAME	ENDS WITH WORDS/PICTURE	RATING
1. OPENING AND INTRODUCTION OF PROGRAM.	ENDS WITH PICTURE: ALL FIVE CHARACTERS SIT ON PLATFORM.	
2. EXPLANATION OF HOW THE "MAGIC 5" ARE USED.	ENDS WITH WORDS: MALE CHARACTER SAYS: "IMAGINATION".	
3. THE ROPE GAME.	ENDS WITH WORDS: MALE CHARACTER SAYS: "YEAH!" (CHARACTER HAS FALLEN TO FLOOR.)	
4. THE HISTORY STORY.	ENDS WITH WORDS: MALE CHARACTER SAYS: "WE ARE BRINGING THE GOOD NEWS TO THE PEOPLE OF THE NEW LAND."	
5. INTRODUCTION TO TRANSPORTATION AND CHEER.	ENDS WITH PICTURE: ALL FIVE CHARACTERS END TRANSPORTATION CHEER.	
6. MIME OF DIFFERENT MODES OF TRANSPORTATION.	ENDS WITH WORDS: FEMALE CHARACTER SAYS: "....COULD INDICATE DANDRUFF."	
7. SUMMARY OF USE OF FIVE W'S WITH TRANSPORTATION.	ENDS WITH WORDS: FEMALE CHARACTER SAYS: "WELL, THAT'S WHAT IT'S ALL ABOUT, TRANSPORTATION, NOW HERE'S MORE."	
8. TRANSPORTATION SEQUENCES.	ENDS WITH PICTURE: ALL FIVE CHARACTERS WALK TOWARD CAMERA.	
9. SUMMARY AND CLOSING.	ENDS WITH PICTURE FADING TO BLACK.	

TEACHER'S RATING SHEET

SCHOOL: SACRED HEART   GRADE:_____

SEGMENT NAME	ENDS WITH WORDS/PICTURE	RATING
1. OPENING GRAPHICS ---INTRO OF "MAGIC 5'W S".	WORDS: "THE MAGIC 5 W'S, YEA! PICTURE: GRAPHIC OF WORD WHY ON SCREEN.	
2. INTRODUCTION OF CAST AND FIRST HALF OF "QUESTION SONG".	WORDS: CHARACTER WITH WORD "WHY" ON T-SHIRT SAYS, "AND HERE'S HOW THEY WORK".	
3. SHOWING HOW THE "MAGIC 5" WORK AND THE END OF THE "QUESTION SONG".	PICTURE: CAST ALL SITS DOWN TOGETHER AND THERE IS A QUICK FADE TO BLACK.	
4. FURTHER DISCUSSION OF HOW THE "MAGIC 5" WORK AND INTRO TO IMAGINATION GAMES.	WORDS: FEMALE CHARACTER SAYS: ...LET'S PLAY SOME GAMES THAT WILL HELP US WARM-UP OUR IMAGINATIONS...	
5. FIRST IMAGINATION GAME, "THE ROPE GAME".	WORDS: FEMALE CHARCTER SAYS: "HOW DO YOU SEE THE ROPE?" MALE CHARACTER SAYS: "YEAH!"	
6. SECOND IMAGINATION GAME, "WHAT'S IN THE BOX?".	WORDS: FEMALE CHARACTER SAYS "I'VE GOT IT RIGHT THIS TIME, IT'S A ROWBOAT!"	
7. INTRO TO HISTORY STORY.	WORDS: FEMALE CHARACTER SAYS: "WATCH HOW WE DO IT AND YOU CAN LEARN TO DO IT TO."	
8. PRESENTATION OF HISTORY STORY USING "5 W'S" AS KEY.	WORDS: FEMALE CHARACTER SAYS: "LET'S USE OUR BRAND NEW TOOLS TO FIND OUT ABOUT TRANSPORTA-TION IN WINDSOR."	
9. TRANSPORTATION CHEER TO INTRO OF OUTSIDE SEGMENTS.	WORDS: FEMALE CHARACTER SAYS: "NOW LET'S GO OUTSIDE AND FIND OUT MORE ABOUT HOW PEOPLE TRAVEL IN WINDSOR."	

TEACHERS RATING SHEET

SCHOOL: <u>SACRED HEART</u>   GRADE: _____

SEGMENT NAME	ENDS WITH WORDS/PICTURE	RATING
10. OUTSIDE SHOTS OF PEOPLE AND CARS.	<u>WORDS</u>: FEMALE CHARACTER SAYS: "WINDSOR IS THE CAR CAPITAL OF CANADA."	
11. WHAT THINGS MAKE UP TRANSPORTATION.	<u>WORDS</u>: MALE CHARACTER SAYS: ....BUT A LONG TIME AGO IT WAS JUST A DUST COVERED INDIAN PATH. "	
12. WHERE DOES TRANSPORTATION TAKE YOU IN WINDSOR?	<u>PICTURE</u>: PLANE IS SEEN FLYING OUT OF FRAME AT UPPER RIGHT HAND CORNER OF SCREEN.	
13. TRANSPORTATION AND BUSES.	<u>PICTURE</u>: SHOT OF BUS PULLING AWAY FROM THE CURB.	
14. SIGNS ARE IMPORTANT TO TRANSPORTATION.	<u>PICTURE</u>: SHOT OF McDONALD'S SIGN.	
15. SUMMARY TO CLOSING.	<u>PICTURE</u> : FADE TO BLACK.	

APPENDIX 8a

TEACHER'S POST VIEWING ASSESSMENT QUESTIONS
FOR SITES #1 AND #2

294.

SITES #1 AND #2

TEACHER'S POST VIEWING ASSESSMENT QUESTIONS:

WHAT WERE YOUR GENERAL IMPRESSIONS OF THIS PRODUCTION UNDER THE FOLLOWING CATEGORIES:

(1) GENERAL PRESENTATIONAL APPROACH, (i.e.   Positive ___ Negative___
effectiveness of "Magic 5" approach,
acting style, script)
Why?_____

_____

(2) SUBJECT MATTER (useful, dull, other)   Positive ___ Negative___
Why?_____

_____

(3) LENGTH (too long?, too short? about right?) Positive ___ Negative___
Why?_____

_____

(4) AUDIENCE RESPONSE (enthusiastic, neutral, Positive ___ Negative___
hard to tell?)
Why?_____

_____

(5) INSTRUCTIONAL EFFECTIVENESS (overall, general Positive___ Negative___
impressions)
Why?_____

_____

(6) LEVEL OF SOPHISTICATION OF LEARNING MATERIAL Positive___ Negative___
FOR THIS AGE GROUP (too high? too low? just
right?)
Why?_____

_____

DO YOU FEEL THAT FURTHER PROGRAMS OF THIS TYPE, DEALING WITH A WIDER RANGE
OF TOPICS MIGHT BE BENEFICIAL FOR CLASSROOM USE? YES___ NO___
Why?_____

_____

Here are some comments that have been made by teachers about in-class television use. Would you please circle the letter(s) on the scale provided which would most closely correspond to your opinion on this subject.

LETTER KEY:
     SA = STRONGLY AGREE
     A = AGREE
     N = NEUTRAL
     D = DISAGREE
     SD = STRONGLY DISAGREE

Television can help poor teachers be better teachers.	SA	A	N	D	SD
Television is a time consuming and inconvenient medium for classroom instruction.	SA	A	N	D	SD
Television generally keeps the child's attention.	SA	A	N	D	SD
Television has unlimited use in the classroom.	SA	A	N	D	SD
Television is not generally understood by teachers.	SA	A	N	D	SD
Television needs more structure.	SA	A	N	D	SD
Television is a threat to personal contact with students.	SA	A	N	D	SD
Television does not help to build basic skills.	SA	A	N	D	SD
Television interferes with the teacher's control in the classroom.	SA	A	N	D	SD
Television may seem either bad or good to a teacher depending upon what his/her previous experiences in teaching have been.	SA	A	N	D	SD
Television can cause an effective teacher to be less effective.	SA	A	N	D	SD

WHAT TOPICS DO YOU FEEL MIGHT BE USEFUL TO INCLUDE IN FUTURE "MAGIC 5 WORK-
SHOP" PRODUCTIONS? (RANK IN ORDER OF IMPORTANCE, MOST IMPORTANT TO LEAST
IMPORTANT)_____

Why?_____

_____

WHAT DO YOU CONSIDER TO BE THE MAJOR BENEFIT(S) OF TELEVISION AS A CLASS-
ROOM TEACHING AID? (RANK IN ORDER OF IMPORTANCE,(if there is more than
one) MOST IMPORTANT TO LEAST IMPORTANT)

Why?_____

_____

DO YOU USE TELEVISION AS A TEACHING AID IN YOUR CLASSROOM?   YES___   NO___

IF YES, HOW OFTEN DO YOU USE IT?   OFTEN_____

                                    SOMETIMES_____

                                    SELDOM_____

WHEN YOU DO USE TELEVISION IN YOUR CLASSROOM
WHAT TYPES OF PROGRAMS HAVE YOU FOUND TO BE
THE MOST USEFUL:

(A) THOSE WITH A LOT OF
     HUMOUR/ENTERTAINMENT?

(B) THOSE THAT HAVE A MORE
     SERIOUS MESSAGE?

(C) THOSE THAT ARE MORE
     INFORMATIONAL IN NA-
     TURE?

(D) OTHER? (WHICH IS?)

     _____

     _____

WHY HAVE YOU FOUND THIS PARTICULAR TYPE OF PROGRAM TO BE MOST USEFUL?

_____

_____

NOW HERE ARE SOME LAST FEW QUESTIONS TO HELP US WITH THE ANALYSIS OF OUR
FINDINGS:

MALE___   FEMALE___

HOW LONG HAVE YOU BEEN TEACHING?_____#YEARS

HAVE YOU ALWAYS TAUGHT AT THE PRIMARY LEVEL?   YES___ NO___

IF YES, WHICH GRADE HAVE YOU TAUGHT FOR THE LONGEST PERIOD OF TIME? _____

HOW MANY YEARS?_____#YEARS.

OF THE FOLLOWING AGE CATEGORIES, WHICH ONE WOULD BEST DESCRIBE YOUR AGE?

20-25 years___
26-31 years___
32-37 years___
38-43 years___
44-49 years___
50-55 years___
56-64 years___

APPENDIX 8b

TEACHER'S ASSESSMENT QUESTIONS
FOR SITE #3, ST. JUDE SCHOOL

TEACHER'S ASSESSMENT QUESTIONS

WHAT WERE YOUR GENERAL IMPRESSIONS OF THE MATERIAL PRESENTED UNDER THE FOLLOWING CATEGORIES:

(1) SUBJECT MATTER (USEFUL, DULL, OTHER,---circle one)

                                    Positive___ Negative___

Why?_____

_____

(2) STUDENTS' RESPONSES (ENTHUSIASTIC, NEUTRAL, HARD TO TELL?)

                                    Positive___ Negative___

Why?_____

_____

(3) LEVEL OF SOPHISTICATION OF LEARNING MATERIAL
     FOR THIS AGE GROUP (TOO HIGH, TOO LOW, JUST RIGHT?)

                                    Positive___ Negative___

Why?_____

_____

DO YOU FEEL THAT THE "MAGIC 5 W" APPROACH, DEALING WITH A WIDER RANGE OF TOPICS MIGHT BE BENEFICIAL FOR CLASSROOM USE?

                                    YES___ NO___

Why?_____

_____

Here are some comments that have been made by teachers about in-class television use. Would you please circle the letter(s) on the scale provided which would most closely correspond to your opinion on this subject.

LETTER KEY: SA = STRONGLY AGREE
                    A = AGREE
                    N = NEUTRAL
                    D = DISAGREE
                    SD = STRONGLY DISAGREE

Statement					
Television can help poor teachers be better teachers.	SA	A	N	D	SD
Television is a time consuming and inconvenient medium for classroom instruction.	SA	A	N	D	SD
Television generally keeps the child's attention.	SA	A	N	D	SD
Television has unlimited use in the classroom.	SA	A	N	D	SD
Television is not generally understood by teachers.	SA	A	N	D	SD
Television needs more structure.	SA	A	N	D	SD
Television is a threat to personal contact with students.	SA	A	N	D	SD
Television does not help to build basic skills.	SA	A	N	D	SD
Television interferes with the teacher's control in the classroom.	SA	A	N	D	SD
Television may seem either bad or good to a teacher depending upon what his/her previous experiences in teaching have been.	SA	A	N	D	SD
Television can cause an effective teacher to be less effective.	SA	A	N	D	SD

WHAT DO YOU CONSIDER TO BE THE MAJOR BENEFIT(S) OF TELEVISION AS A CLASS-
ROOM TEACHING AID? (RANK IN ORDER OF IMPORTANCE,(if there is more than
one) MOST IMPORTANT TO LEAST IMPORTANT)

Why?_____

_____

DO YOU USE TELEVISION AS A TEACHING AID IN YOUR CLASSROOM?   YES___   NO___

IF YES, HOW OFTEN DO YOU USE IT?   OFTEN_____

                                     SOMETIMES_____

                                     SELDOM_____

WHEN YOU DO USE TELEVISION IN YOUR CLASSROOM
WHAT TYPES OF PROGRAMS HAVE YOU FOUND TO BE
THE MOST USEFUL:

(A)   THOSE WITH A LOT OF
      HUMOUR/ENTERTAINMENT?

(B)   THOSE THAT HAVE A MOF
      SERIOUS MESSAGE?

(C)   THOSE THAT ARE MORE
      INFORMATIONAL IN NA-
      TURE?

(D)   OTHER? (WHICH IS?)

_____

_____

WHY HAVE YOU FOUND THIS PARTICULAR TYPE OF PROGRAM TO BE MOST USEFUL?

_____

NOW HERE ARE SOME LAST FEW QUESTIONS TO HELP US WITH THE ANALYSIS OF OUR
FINDINGS:

MALE___   FEMALE___

HOW LONG HAVE YOU BEEN TEACHING?_____#YEARS

HAVE YOU ALWAYS TAUGHT AT THE PRIMARY LEVEL?   YES___ NO___

IF YES, WHICH GRADE HAVE YOU TAUGHT FOR THE LONGEST PERIOD OF TIME? _____

HOW MANY YEARS?_____#YEARS.

OF THE FOLLOWING AGE CATEGORIES, WHICH ONE WOULD BEST DESCRIBE YOUR
AGE?

                    20-25 years____
                    26-31 years____
                    32-37 years____
                    38-43 years____
                    44-49 years____
                    50-55 years____
                    56-64 years____

303.

APPENDIX 2

TABLES

TABLE 1

HOW MANY OF THE "W" WORDS DO THEY KNOW BEFORE THE

* * * * * * * * * A N A L Y S I S O F V A R I A N C E * * * * * * * * * * *

```
                WWORDS
          BY  SEX
              AGE
              SITE
              GRADE
```
* *

SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F	SIGNIF OF F
MAIN EFFECTS	26.605	8	3.326	7.525	0.000
SEX	2.694	1	2.694	6.096	0.014
AGE	1.771	3	0.590	1.336	0.264
SITE	6.769	2	3.384	7.658	0.001
GRADE	1.448	2	0.724	1.633	0.197
EXPLAINED	26.605	8	3.326	7.525	0.000
RESIDUAL	79.112	179	0.442		
TOTAL	105.717	187	0.505		

```
    188 CASES WERE PROCESSED.
      0 CASES (  0.0 PCT) WERE MISSING.
```

FILE   PRETEST2 (CREATION DATE = 08/19/82)

* * * * M U L T I P L E C L A S S I F I C A T I O N A N A L Y S I S * * *

```
                WWORDS
          BY  SEX
              AGE
              SITE
              GRADE
```
* *

GRAND MEAN =   4.70

VARIABLE + CATEGORY	N	UNADJUSTED DEV'N	ETA	ADJUSTED FOR INDEPENDENTS DEV'N	BETA	ADJUSTED FOR INDEPENDENTS + COVARIATES DEV'N	BETA
SEX							
1 MALE	95	-0.12		-0.12			
2 FEMALE	93	0.12		0.12			
			0.16		0.16		
AGE							
6 SIX YEARS OLD	47	-0.48		-0.26			
7 SEVEN YEARS OLD	52	0.07		0.11			
8 EIGHT YEARS OLD	69	0.20		0.08			
9 NINE YEARS OLD	20	0.25		0.04			
			0.38		0.20		
SITE							
1 IMMACULATE CONCEPTIC	64	0.12		0.13			
2 SACRED HEART	76	-0.22		-0.23			
3 ST JUDE	48	0.20		0.20			
			0.25		0.26		
GRADE							
1 GRADE ONE	65	-0.39		-0.24			
2 GRADE TWO	58	0.20		0.11			
3 GRADE THREE	65	0.21		0.16			
			0.38		0.24		

```
MULTIPLE R SQUARED                          0.252
MULTIPLE R                                  0.502
```

TABLE 2

UNDERSTANDING OF THE WORD TRANSPORTATION BEFORE THE

```
**** **** A N A L Y S I S   O F   V A R I A N C E ***** * ** * ** *
              TPCRT1
        BY  SEX
            AGE
            SITE
            GRADE
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
```

SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F	SIGNIF OF F
MAIN EFFECTS	21.259	3	2.657	5.341	0.000
SEX	0.067	1	0.067	0.135	0.714
AGE	3.927	3	1.309	2.631	0.052
SITE	13.194	2	6.597	13.259	0.000
GRADE	3.791	2	1.895	3.810	0.024
EXPLAINED	21.259	8	2.657	5.341	0.000
RESIDUAL	89.060	179	0.498		
TOTAL	110.318	187	0.590		

```
    188 CASES WERE PROCESSED.
      0 CASES (  0.0 PCT) WERE MISSING.
```

SALLY

FILE   PRETEST2 (CREATION DATE = 08/19/82)

```
* * *   M U L T I P L E   C L A S S I F I C A T I O N   A N A L Y S I S   * * *
              TPCRT1
        BY  SEX
            AGE
            SITE
            GRADE
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
```

GRAND MEAN =   2.20

VARIABLE + CATEGORY	N	UNADJUSTED DEV'N	ETA	ADJUSTED FOR INDEPENDENTS DEV'N	BETA	ADJUSTED FOR INDEPENDENTS + COVARIATES DEV'N	BETA
SEX							
1 MALE	95	0.04		-0.02			
2 FEMALE	93	-0.04		0.02			
			0.05		0.03		
AGE							
6 SIX YEARS OLD	47	-0.18		-0.44			
7 SEVEN YEARS OLD	52	-0.09		-0.05			
8 EIGHT YEARS OLD	69	0.07		0.20			
9 NINE YEARS OLD	20	0.40		0.48			
			0.22		0.39		
SITE							
1 IMMACULATE CONCEPTIO	64	-0.22		-0.27			
2 SACRED HEART	76	-0.08		-0.06			
3 ST JUDE	48	0.42		0.43			
			0.33		0.35		
GRADE							
1 GRADE ONE	65	-0.08		0.29			
2 GRADE TWO	58	-0.15		-0.26			
3 GRADE THREE	65	0.21		-0.07			
			0.21		0.29		

```
MULTIPLE R SQUARED                          0.193
MULTIPLE R                                  0.439
```

TABLE 3

UNDERSTANDING OF HOW THE WORD "WHEN" IS USED, BEFORE THE

* * * * * * * * A N F L Y S I S   G F   V A R I A N C E * * * * * * * * * * *

	WHEN
	BY SEX
	AGE
	SITE
	GRADE

* *

SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F	SIGNIF CF F
MAIN EFFECTS	31.256	8	3.907	5.551	0.000
SEX	1.933	1	1.933	2.747	0.099
AGE	0.414	3	0.138	0.196	0.899
SITE	26.143	2	13.071	18.573	0.000
GRADE	0.639	2	0.320	0.455	0.636
EXPLAINED	31.256	8	3.907	5.551	0.000
RESIDUAL	125.977	179	0.704		
TOTAL	157.233	187	0.841		

188 CASES WERE PROCESSED.
0 CASES (0.0 PCT) WERE MISSING.

SALLY

FILE   PRETEST2 (CREATION DATE = 08/19/82)

* * *   M U L T I P L E   C L A S S I F I C A T I C N   A N A L Y S I S   * * *

	WHEN
	BY SEX
	AGE
	SITE
	GRADE

* *

GRAND MEAN =   2.06

VARIABLE + CATEGORY	N	UNADJUSTED DEV'N	ETA	ADJUSTED FOR INDEPENDENTS DEV'N	BETA	ADJUSTED FOR INDEPENDENTS + COVARIATES DEV'N	BETA
SEX							
1 MALE	95	-0.13		-0.10			
2 FEMALE	93	0.13		0.11			
			0.14		0.11		
AGE							
6 SIX YEARS OLD	47	-0.15		-0.09			
7 SEVEN YEARS OLD	52	0.01		-0.08			
8 EIGHT YEARS OLD	69	0.08		0.08			
9 NINE YEARS OLD	20	0.04		0.15			
			0.10		0.10		
SITE							
1 IMMACULATE CONCEPTIO	64	0.11		0.09			
2 SACRED HEART	76	0.30		0.32			
3 ST JUDE	48	-0.63		-0.62			
			0.41		0.41		
GRADE							
1 GRADE ONE	65	-0.13		-0.07			
2 GRADE TWO	58	0.09		0.11			
3 GRADE THREE	65	0.04		-0.03			
			0.10		0.08		

MULTIPLE R SQUARED   0.199
MULTIPLE R   0.446

TABLE 4

WHICH BOX HAS THE "MAGIC 5 WORDS" IN IT ?

* * * * * * * * * * A N A L Y S I S   O F   V A R I A N C E * * * * * * * * * * * *
                FIVEWS
            BY SEX
                AGE
                SITE
* *

SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F	SIGNIF OF F
MAIN EFFECTS	2.143	6	0.357	2.819	0.012
SEX	0.705	1	0.705	5.555	0.019
AGE	1.220	3	0.407	3.210	0.024
SITE	0.249	2	0.125	0.983	0.376
EXPLAINED	2.143	6	0.357	2.819	0.012
RESIDUAL	22.936	181	0.127		
TOTAL	25.079	187	0.134		

188 CASES WERE PROCESSED.
0 CASES (0.0 PCT) WERE MISSING.

SPSS BATCH SYSTEM

FILE   THESIS2 (CREATION DATE = 08/19/82)

* * *   M U L T I P L E   C L A S S I F I C A T I O N   A N A L Y S I S   * * *
                FIVEWS
            BY SEX
                AGE
                SITE
* *

GRAND MEAN =   2.90

VARIABLE + CATEGORY	N	UNADJUSTED DEV'N	ETA	ADJUSTED FOR INDEPENDENTS DEV'N	BETA	ADJUSTED FOR INDEPENDENTS + COVARIATES DEV'N	BETA
SEX							
1 MALE	95	-0.06		-0.06			
2 FEMALE	93	0.06		0.06			
			0.16		0.17		
AGE							
6 AGE SIX	46	-0.14		-0.13			
7 AGE SEVEN	53	0.06		0.03			
8 AGE EIGHT	69	0.01		0.02			
9 AGE NINE	20	0.10		0.12			
			0.23		0.22		
SITE							
1 IMMACULATE CONCEPTIO	64	-0.04		-0.05			
2 SACRED HEART	76	0.01		0.01			
3 ST JUDE	48	0.04		0.06			
			0.08		0.10		

MULTIPLE R SQUARED   0.085
MULTIPLE R   0.292

TABLE 5

COMPREHENSION OF

WHEN IT IS A GOOD TIME TO USE THE "MAGIC 5 W'S"

* * * * * * * * * A N A L Y S I S   O F   V A R I A N C E * * * * * * * * * *
```
            TIMEUSE
        BY SEX
           AGE
           GRADE
```
* *

SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F	SIGNIF OF F
MAIN EFFECTS	9.876	6	1.646	4.063	0.001
SEX	1.741	1	1.741	4.297	0.040
AGE	4.758	3	1.586	3.914	0.010
GRADE	0.754	2	0.377	0.931	0.396
EXPLAINED	9.876	6	1.646	4.063	0.001
RESIDUAL	73.330	181	0.405		
TOTAL	83.206	187	0.445		

```
    188 CASES WERE PROCESSED.
      0 CASES ( 0.0 PCT) WERE MISSING.
```

SPSS BATCH SYSTEM

FILE   THESIS2   (CREATION DATE = 08/19/82)

* * *   M U L T I P L E   C L A S S I F I C A T I O N   A N A L Y S I S   * * *
```
            TIMEUSE
        BY SEX
           AGE
           GRADE
```
* *

GRAND MEAN =   2.68

VARIABLE + CATEGORY	N	UNADJUSTED DEV'N ETA	ADJUSTED FOR INDEPENDENTS DEV'N BETA	ADJUSTED FOR INDEPENDENTS + COVARIATES DEV'N BETA
SEX				
1 MALE	95	-0.10	-0.10	
2 FEMALE	93	0.10	0.10	
		0.15		0.15
AGE				
6 AGE SIX	46	-0.33	-0.50	
7 AGE SEVEN	53	0.06	0.01	
8 AGE EIGHT	69	0.09	0.20	
9 AGE NINE	20	0.27	0.42	
		0.29		0.47
GRADE				
1 GRADE ONE	65	-0.17	0.18	
2 GRADE TWO	58	0.05	-0.05	
3 GRADE THREE	65	0.12	-0.13	
		0.19		0.20

MULTIPLE R SQUARED   0.119
MULTIPLE R   0.345

TABLE 6

COMPREHENSION OF WHO USES TRANSPORTATION.

* * * * * * * * * A N A L Y S I S   O F   V A R I A N C E * * * * * * * * * *
           WHOUSES
     BY SEX
         AGE
         SITE
* *

SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F	SIGNIF OF F
MAIN EFFECTS	15.371	6	2.562	7.251	0.000
SEX	0.348	1	0.348	0.986	0.322
AGE	9.149	3	3.050	8.632	0.000
SITE	5.555	2	2.777	7.861	0.001
EXPLAINED	15.371	6	2.562	7.251	0.000
RESIDUAL	63.947	181	0.353		
TOTAL	79.318	187	0.424		

    188 CASES WERE PROCESSED.
    0 CASES (0.0 PCT) WERE MISSING.

SPSS BATCH SYSTEM

FILE   THESIS2 (CREATION DATE = 08/19/82)

* * *   M U L T I P L E   C L A S S I F I C A T I O N   A N A L Y S I S   * * *
           WHOUSES
     BY SEX
         AGE
         SITE
* *

GRAND MEAN =   2.70

VARIABLE + CATEGORY	N	UNADJUSTED DEV'N	ETA	ADJUSTED FOR INDEPENDENTS DEV'N	BETA	ADJUSTED FOR INDEPENDENTS + COVARIATES DEV'N	BETA
SEX							
1 MALE	95	-0.04		-0.04			
2 FEMALE	93	0.04		0.04			
			0.06		0.07		
AGE							
6 AGE SIX	46	-0.33		-0.35			
7 AGE SEVEN	53	-0.06		-0.03			
8 AGE EIGHT	69	0.18		0.18			
9 AGE NINE	20	0.30		0.26			
			0.34		0.34		
SITE							
1 IMMACULATE CONCEPTIO	64	0.13		0.12			
2 SACRED HEART	76	-0.22		-0.21			
3 ST JUDE	48	0.17		0.17			
			0.27		0.27		

MULTIPLE R SQUARED   0.194
MULTIPLE R   0.440

TABLE 7

COMPREHENSION OF
WHEN DO YOU USE THE "MAGIC 5 W'S"?

* * * * * * * * * * A N A L Y S I S   O F   V A R I A N C E * * * * * * * * * *
WHENUSE
BY AGE
SITE
* *

SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F	SIGNIF OF F
MAIN EFFECTS	8.347	5	1.669	8.647	0.000
AGE	8.314	3	2.771	14.354	0.000
SITE	0.044	2	0.022	0.113	0.893
EXPLAINED	8.347	5	1.669	8.647	0.000
RESIDUAL	35.141	182	0.193		
TOTAL	43.488	187	0.233		

188 CASES WERE PROCESSED.
0 CASES (0.0 PCT) WERE MISSING.

SPSS BATCH SYSTEM

FILE   THESIS2   (CREATION DATE = 08/19/82)

* * *   M U L T I P L E   C L A S S I F I C A T I O N   A N A L Y S I S   * * *
WHENUSE
BY AGE
SITE
* *

GRAND MEAN =   2.79

VARIABLE + CATEGORY	N	UNADJUSTED DEV'N ETA	ADJUSTED FOR INDEPENDENTS DEV'N BETA	ADJUSTED FOR INDEPENDENTS + COVARIATES DEV'N BETA
AGE				
6 AGE SIX		0.33	0.33	
7 AGE SEVEN	53	0.02	0.02	
8 AGE EIGHT	65	0.15	0.16	
9 AGE NINE	20	0.21	0.21	
		0.44	0.44	
SITE				
1 IMMACULATE CONCEPTIO	64	-0.01	0.01	
2 SACRED HEART	76	0.02	0.01	
3 ST JUDE	48	-0.02	-0.03	
		0.03	0.03	
MULTIPLE R SQUARED			0.192	
MULTIPLE R			0.438	

TABLE 8

COMPREHENSION OF THE "W" WORDS AS QUESTIONS.

```
* * * * * * * * * * A N A L Y S I S   O F   V A R I A N C E * * * * * * * * * * *
          CUESTAN
      BY  AGE
          SITE
          GRADE
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
```

SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F	SIGNIF OF F
MAIN EFFECTS	18.646	7	2.664	8.870	0.000
AGE	0.788	3	0.263	0.874	0.456
SITE	12.363	2	6.177	20.568	0.000
GRADE	4.919	2	2.459	8.189	0.000
EXPLAINED	18.646	7	2.664	8.870	0.000
RESIDUAL	54.054	180	0.300		
TOTAL	72.701	187	0.389		

```
188 CASES WERE PROCESSED.
  0 CASES (  0.0 PCT) WERE MISSING.
```

```
SPSS BATCH SYSTEM

FILE   THESIS2  (CREATION DATE = 08/19/82)

* * *   M U L T I P L E   C L A S S I F I C A T I O N   A N A L Y S I S   * * *
          CUESTAN
      BY  AGE
          SITE
          GRADE
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
```

GRAND MEAN = 2.73

VARIABLE + CATEGORY	N	UNADJUSTED DEV'N ETA	ADJUSTED FOR INDEPENDENTS DEV'N BETA	ADJUSTED FOR INDEPENDENTS + COVARIATES DEV'N BETA
AGE				
6 AGE SIX	46	-0.08	-0.01	
7 AGE SEVEN	53	-0.02	0.10	
8 AGE EIGHT	69	0.01	-0.08	
9 AGE NINE	20	0.22	0.05	
		0.13	0.11	
SITE				
1 IMMACULATE CONCEPTION	64	-0.34	-0.37	
2 SACRED HEART	76	0.19	0.20	
3 ST JUDE	48	0.16	0.17	
		0.40	0.42	
GRADE				
1 GRADE ONE	65	-0.04	-0.03	
2 GRADE TWO	58	-0.18	-0.26	
3 GRADE THREE	65	0.20	0.26	
		0.26	0.34	

```
MULTIPLE R SQUARED                    0.256
MULTIPLE R                            0.506
```

TABLE 9

COMPREHENSION OF
WHAT TOOLS ARE WE TOLD TO USE?

* * * * * * * * * A N A L Y S I S   O F   V A R I A N C E * * * * * * * * * *
```
                    TOOLS
            BY  AGE
                SITE
                GRADE
```
* *

SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F	SIGNIF OF F
MAIN EFFECTS	3.205	7	0.458	2.424	0.021
AGE	0.290	3	0.097	0.511	0.575
SITE	0.386	2	0.193	1.022	0.362
GRADE	0.116	2	0.058	0.306	0.736
EXPLAINED	3.205	7	0.458	2.424	0.021
RESIDUAL	34.006	180	0.189		
TOTAL	37.212	187	0.199		

```
    188 CASES WERE PROCESSED.
    0 CASES ( 0.0 PCT) WERE MISSING.
```

SPSS BATCH SYSTEM

FILE   THESIS2   (CREATION DATE = 03/15/82)

* * * M U L T I P L E   C L A S S I F I C A T I O N   A N A L Y S I S * * *
```
                    TOOLS
            BY  AGE
                SITE
                GRADE
```
* *

GRAND MEAN = 2.84

VARIABLE + CATEGORY	N	UNADJUSTED DEV'N	ETA	ADJUSTED FOR INDEPENDENTS DEV'N	BETA	ADJUSTED FOR INDEPENDENTS + COVARIATES DEV'N	BETA
AGE							
6 AGE SIX	46	-0.19		-0.12			
7 AGE SEVEN	53	-0.01		0.00			
8 AGE EIGHT	69	0.09		0.05			
9 AGE NINE	20	0.16		0.11			
			0.27		0.17		
SITE							
1 IMMACULATE CONCEPTIO	64	-0.04		-0.04			
2 SACRED HEART	76	0.05		0.06			
3 ST JUDE	48	-0.03		-0.03			
			0.10		0.10		
GRADE							
1 GRADE ONE	65	-0.15		-0.06			
2 GRADE TWO	58	0.02		-0.01			
3 GRADE THREE	65	0.13		0.07			
			0.26		0.12		

```
MULTIPLE R SQUARED                                      0.086
MULTIPLE R                                              0.293
```

TABLE 10

COMPREHENSION OF
MEANING OF THE WORD "WHO"

```
* * * * * * * * * A N A L Y S I S   O F   V A R I A N C E * * * * * * * * * *
                WHO
            BY  AGE
                GRADE
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
```

SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F	SIGNIF OF F
MAIN EFFECTS	4.238	5	0.848	2.290	0.048
AGE	0.420	3	0.140	0.378	0.769
GRADE	1.212	2	0.606	1.637	0.197
EXPLAINED	4.238	5	0.848	2.290	0.048
RESIDUAL	67.377	182	0.370		
TOTAL	71.616	187	0.383		

```
    188 CASES WERE PROCESSED.
      0 CASES (  0.0 PCT) WERE MISSING.
```

SPSS BATCH SYSTEM

FILE   THESIS2 (CREATION DATE = 08/15/82)

```
* * *   M U L T I P L E   C L A S S I F I C A T I O N   A N A L Y S I S   * * *
                WHO
            BY  AGE
                GRADE
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
```

GRAND MEAN = 2.72

VARIABLE + CATEGORY	N	UNADJUSTED DEV'N ETA	ADJUSTED FOR INDEPENDENTS DEV'N BETA	ADJUSTED FOR INDEPENDENTS + COVARIATES DEV'N BETA
AGE				
6 AGE SIX	46	0.16	0.01	
7 AGE SEVEN	53	-0.04	0.04	
8 AGE EIGHT	69	0.06	-0.07	
9 AGE NINE	20	0.26	0.06	
		0.21	0.09	
GRADE				
1 GRADE ONE	65	-0.15	-0.15	
2 GRADE TWO	58	-0.03	-0.03	
3 GRADE THREE	65	0.18	0.21	
		0.23	0.27	
MULTIPLE R SQUARED			0.059	
MULTIPLE R			0.243	

314.

TABLE 11

COMPREHENSION OF WHAT IS MOST IMPORTANT ABOUT THE PROGRAM.

```
* * * * * * * * * A N A L Y S I S   O F   V A R I A N C E * * * * * * * * * *
                MOSTIMP
         BY SEX
            AGE
            SITE
            GRADE
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
```

SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F	SIGNIF OF F
MAIN EFFECTS	2.316	3	0.269	2.043	0.044
SEX	0.009	1	0.009	0.064	0.801
AGE	0.257	3	0.186	0.604	0.612
SITE	1.391	2	0.695	4.903	0.008
GRADE	0.087	2	0.044	0.309	0.735
EXPLAINED	2.316	8	0.289	2.043	0.044
RESIDUAL	25.359	179	0.142		
TOTAL	27.675	187	0.148		

```
      188 CASES WERE PROCESSED.
        0 CASES ( 0.0 PCT) WERE MISSING.
```

SPSS BATCH SYSTEM

FILE   THESIS2   (CREATION DATE = 08/15/82)

```
* * *   M U L T I P L E   C L A S S I F I C A T I O N   A N A L Y S I S   * * *
                MOSTIMP
         BY    SEX
               AGE
               SITE
               GRADE
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
```

GRAND MEAN =   2.07

VARIABLE + CATEGORY	N	UNADJUSTED DEV'N ETA	ADJUSTED FOR INDEPENDENTS DEV'N BETA	ADJUSTED FOR INDEPENDENTS + COVARIATES DEV'N BETA
SEX				
1 MALE	95	0.01	-0.01	
2 FEMALE	93	-0.01	0.01	
		0.02		0.02
AGE				
6 AGE SIX	46	-0.11	-0.18	
7 AGE SEVEN	53	0.04	0.00	
8 AGE EIGHT	69	0.02	0.01	
9 AGE NINE	20	0.06	0.12	
		0.17		0.15
SITE				
1 IMMACULATE CONCEPTIO	64	-0.12	-0.12	
2 SACRED HEART	76	0.03	0.03	
3 ST JUDE	48	0.11	0.11	
		0.24		0.23
GRADE				
1 GRADE ONE	65	-0.06	-0.06	
2 GRADE TWO	58	0.06	0.04	
3 GRADE THREE	65	0.03	-0.02	
		0.10		0.07
MULTIPLE R SQUARED				0.084
MULTIPLE R				0.289

TABLE 12

RECALL QUESTION, DID THEY PULL A ROPE OR...

CROSSTABULATION OF RUPEOR BY RUPEOR OF ...

PAGE 1 OF 1

RUPEOR

COUNT ROW PCT COL PCT TOT PCT	LOW RECA ILL 1	UNCECIDE 0. 2	HIGH REC ALL 3	ROW TOTAL
AGE SIX 6	4 5.7 28.6 1.4	4 11.4 57.1 2.9	29 82.9 23.0 20.7	35 25.0
AGE SEVEN 7	3 7.5 42.9 2.1	1 2.5 14.3 0.7	36 90.0 28.6 25.7	40 28.6
AGE EIGHT 8	1 2.0 14.3 0.7	2 4.0 28.6 1.4	47 94.0 37.3 33.6	50 35.7
AGE NINE 9	1 6.7 14.3 0.7	0 0.0 0.0 0.0	14 93.3 11.1 10.0	15 10.7
COLUMN TOTAL	7 5.0	7 5.0	126 90.0	140 100.0

8 OUT OF 12 (66.7%) OF THE VALID CELLS HAVE EXPECTED CELL FREQUENCY LESS THAN 5.0.
MINIMUM EXPECTED CELL FREQUENCY = 0.750

RAW CHI SQUARE = 6.66772 WITH 6 DEGREES OF FREEDOM. SIGNIFICANCE = 0.4156
CRAMER'S V = 0.14721
CONTINGENCY COEFFICIENT = 0.20381
LAMBDA (ASYMMETRIC) = 0.04444 WITH AGE DEPENDENT. = 0.0 WITH RUPEOR DEPENDENT.
LAMBDA (SYMMETRIC) = 0.03846
UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.01730 WITH AGE DEPENDENT. = 0.05754 WITH RUPEOR DEPENDENT.
UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.02660
KENDALL'S TAU B = 0.12133. SIGNIFICANCE = 0.0582
KENDALL'S TAU C = 0.06628. SIGNIFICANCE = 0.0582
GAMMA = 0.32030
SOMERS'S D (ASYMMETRIC) = 0.23883 WITH AGE DEPENDENT. = 0.06164 WITH RUPEOR DEPENDENT.
SOMERS'S D (SYMMETRIC) = 0.09799
ETA = 0.15278 WITH AGE DEPENDENT. = 0.12401 WITH RUPEOR DEPENDENT.
PEARSON'S R = 0.10468 SIGNIFICANCE = 0.1052

NUMBER OF MISSING OBSERVATIONS = 46

316.

TABLE 13

RECALL QUESTION: THESIS PRODUCTION ONLY, WAS IT A BALL OR....

CROSSTABULATION OF

AGE BY BALLOR

PAGE 1 OF 1

COUNT ROW PCT COL PCT TOT PCT	BALLOR LOW RECA LL 1	UNDECIDE D 2	HIGH REC ALL 3	ROW TOTAL
AGE SIX 6	5 16.5 27.8 4.0	4 14.8 44.4 3.2	18 66.7 18.6 14.5	27 21.8
AGE SEVEN 7	7 17.1 38.9 5.6	3 7.3 33.3 2.4	31 75.6 32.0 25.0	41 33.1
AGE EIGHT 8	5 10.9 27.8 4.0	2 4.3 22.2 1.6	39 84.8 40.2 31.5	46 37.1
AGE NINE 9	1 10.0 5.6 0.8	0 0.0 0.0 0.0	9 90.0 9.3 7.3	10 8.1
COLUMN TOTAL	18 14.5	9 7.3	97 78.2	124 100.0

MINIMUM EXPECTED CELL FREQUENCY = 0.726

6 OUT OF 12 (50.0%) OF THE VALID CELLS HAVE EXPECTED CELL FREQUENCY LESS THAN 5.0.

RAW CHI SQUARE = 5.35665 WITH 6 DEGREES OF FREEDOM. SIGNIFICANCE = 0.4987

CRAMER'S V = 0.14699

CONTINGENCY COEFFICIENT = 0.20353

LAMBDA (ASYMMETRIC) = 0.05126 WITH AGE DEPENDENT. = 0.0 WITH BALLOR DEPENDENT.

LAMBDA (SYMMETRIC) = 0.03816

UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.01815 WITH AGE DEPENDENT. = 0.03476 WITH BALLOR DEPENDENT.

UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.02385

KENDALL'S TAU B = 0.15778. SIGNIFICANCE = 0.0267

KENDALL'S TAU C = 0.11562. SIGNIFICANCE = 0.0267

GAMMA = 0.30870

SOMERS'S D (ASYMMETRIC) = 0.21935 WITH AGE DEPENDENT. = 0.11345 WITH BALLOR DEPENDENT.

SOMERS'S D (SYMMETRIC) = 0.14558

ETA = 0.20130 WITH AGE DEPENDENT. = 0.15269 WITH BALLOR DEPENDENT.

PEARSON'S R = 0.15058 SIGNIFICANCE = 0.0475

NUMBER OF MISSING OBSERVATIONS = 64

TABLE 14

RECALL QUESTION: PRETEND TO BE THE PEOPLE?

```
* * * * * * * * * A N A L Y S I S   O F   V A R I A N C E * * * * * * * * * *
                PICBEPE
          BY AGE
             SITE
             GRADE
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
```

SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F	SIGNIF OF F
MAIN EFFECTS	17.077	7	2.440	7.865	0.000
AGE	0.239	3	0.080	0.257	0.856
SITE	8.855	2	4.427	14.274	0.000
GRADE	1.180	2	0.590	1.902	0.152
EXPLAINED	17.077	7	2.440	7.865	0.000
RESIDUAL	55.831	180	0.310		
TOTAL	72.908	187	0.390		

```
188 CASES WERE PROCESSED.
    0 CASES ( 0.0 PCT) WERE MISSING.
```

```
SPSS BATCH SYSTEM

FILE   THESIS2  (CREATION DATE = 08/19/82)

* * *  M U L T I P L E   C L A S S I F I C A T I O N   A N A L Y S I S  * * *
                PICBEPE
          BY AGE
             SITE
             GRADE
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
```

GRAND MEAN = 2.71

VARIABLE + CATEGORY	N	UNADJUSTED DEV'N ETA	ADJUSTED FOR INDEPENDENTS DEV'N BETA	ADJUSTED FOR INDEPENDENTS + COVARIATES DEV'N BETA
AGE				
6 AGE SIX	46	-0.32	-0.09	
7 AGE SEVEN	53	0.05	0.02	
8 AGE EIGHT	69	0.12	0.02	
9 AGE NINE	20	0.05	0.09	
		0.29	0.09	
SITE				
1 IMMACULATE CONCEPTIO	64	-0.32	-0.31	
2 SACRED HEART	76	0.16	0.15	
3 ST JUDE	48	0.19	0.17	
		0.38	0.36	
GRADE				
1 GRADE ONE	65	-0.28	-0.19	
2 GRADE TWO	58	0.19	0.12	
3 GRADE THREE	65	0.11	0.09	
		0.33	0.22	
MULTIPLE R SQUARED			0.234	
MULTIPLE R			0.484	

TABLE 15

RECALL QUESTION: THESIS PRODUCTION ONLY, TALK OR HISTORY
BOOK?

```
* * * * * * * * * A N A L Y S I S   O F   V A R I A N C E * * * * * * * * *
                  TALKHIS
            BY AGE
               SITE
               GRADE
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
```

SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F	SIGNIF OF F
MAIN EFFECTS	11.335	6	1.889	5.093	0.000
AGE	0.140	3	0.047	0.125	0.945
SITE	3.006	1	3.006	8.105	0.005
GRADE	2.546	2	1.273	3.432	0.036
EXPLAINED	11.335	6	1.889	5.093	0.000
RESIDUAL	43.398	117	0.371		
TOTAL	54.733	123	0.445		

188 CASES WERE PROCESSED.
64 CASES (34.0 PCT) WERE MISSING.

SPSS BATCH SYSTEM

FILE   THESIS2 (CREATION DATE = 08/19/82)

```
* * *   M U L T I P L E   C L A S S I F I C A T I O N   A N A L Y S I S   * * *
                TALKHIS
          BY    AGE
                SITE
                GRADE
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
```

GRAND MEAN = 2.69

VARIABLE + CATEGORY	N	UNADJUSTED DEV'N	ETA	ADJUSTED FOR INDEPENDENTS DEV'N	BETA	ADJUSTED FOR INDEPENDENTS + COVARIATES DEV'N	BETA
AGE							
6 AGE SIX	27	-0.35		0.00			
7 AGE SEVEN	41	-0.03		-0.03			
8 AGE EIGHT	46	0.21		0.04			
9 AGE NINE	10	0.11		-0.07			
			0.32		0.05		
SITE							
2 SACRED HEART	76	-0.13		-0.12			
3 ST JUDE	48	0.21		0.20			
			0.25		0.24		
GRADE							
1 GRADE ONE	39	-0.38		-0.36			
2 GRADE TWO	44	0.18		0.19			
3 GRADE THREE	41	0.17		0.15			
			0.39		0.37		

MULTIPLE R SQUARED   0.207
MULTIPLE R   0.455

TABLE 16

RECALL QUESTION: WHAT CITY THE ACTION TOOK PLACE IN.

CROSSTABULATION OF ... BY CITY ...   PAGE 1 OF 1

COUNT ROW PCT COL PCT TOT PCT	CITY LOW RECA ILL	LOW RECA 0	UNDECIDE 1	HIGH REC ALL 2	3	ROW TOTAL
AGE SIX 6.	5 10.9 26.3 2.7		4 8.7 50.0 2.1	37 80.4 23.0 19.7		46 24.5
AGE SEVEN 7.	4 7.5 21.1 2.1		3 5.7 37.5 1.6	46 86.8 28.6 24.5		53 28.2
AGE EIGHT 8.	9 13.0 47.4 4.8		1 1.4 12.5 0.5	59 85.5 36.6 31.4		69 36.7
AGE NINE 9.	1 5.0 5.3 0.5		0 0.0 0.0 0.0	19 95.0 11.8 10.1		20 10.6
COLUMN TOTAL	19 10.1		8 4.3	161 85.6		188 100.0

6 OUT OF 12 (50.0%) OF THE VALID CELLS HAVE EXPECTED CELL FREQUENCY LESS THAN 5.0.
MINIMUM EXPECTED CELL FREQUENCY = 0.851
CHI SQUARE = 6.33852 WITH 6 DEGREES OF FREEDOM   SIGNIFICANCE = 0.3864
CRAMER'S V = 0.12984
CONTINGENCY COEFFICIENT = 0.18060
LAMBDA (ASYMMETRIC) = 0.02521 WITH AGE DEPENDENT.   = 0.0 WITH CITY DEPENDENT.
LAMBDA (SYMMETRIC) = 0.02055
UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.01466 WITH AGE DEPENDENT.   = 0.03043 WITH CITY DEPENDENT.
UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.02122
KENDALL'S TAU B = 0.02403   SIGNIFICANCE = 0.1327
KENDALL'S TAU C = 0.04736   SIGNIFICANCE = 0.1327
GAMMA = 0.17470
SOMERS'S D (ASYMMETRIC) = 0.12403 WITH AGE DEPENDENT.   = 0.04418 WITH CITY DEPENDENT.
SOMERS'S D (SYMMETRIC) = 0.02616
ETA = 0.15669 WITH AGE DEPENDENT.   = 0.09950 WITH CITY DEPENDENT.
PEARSON'S R = 0.05704   SIGNIFICANCE = 0.2164

TABLE 17

RECALL QUESTION: DID THEY PRETEND TO PULL A ROPE OR...

```
* * * * * * * * * * * * * * * *  C R O S S T A B U L A T I O N   O F  * * * * * * * * * * * * * * * *
*   GRADE                                      BY RUPEOR                                 * PAGE 1 OF 1
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
```

RUPEOR

COUNT ROW PCT COL PCT TOT PCT	LOW RECA LL 1	NECA 0	UNDECIDE D 2	HIGH REC ALL 3	ROW TOTAL
GRADE ONE	3 5.9 42.9 2.1		5 9.8 71.4 3.6	43 84.3 34.1 30.7	51 36.4
GRADE TWO	4 9.8 28.6 1.4		2 4.9 14.3 0.7	38 92.7 30.2 27.1	41 29.3
GRADE THREE	2 4.2 28.6 1.4		1 2.1 14.3 0.7	45 93.8 35.7 32.1	48 34.3
COLUMN TOTAL	7 5.0		7 5.0	126 90.0	140 100.0

```
6 OUT OF    9 ( 66.7%) OF THE VALID CELLS HAVE EXPECTED CELL FREQUENCY LESS THAN 5.0.
MINIMUM EXPECTED CELL FREQUENCY =    2.050
RAW CHI SQUARE =    4.14670 WITH    4 DEGREES OF FREEDM.  SIGNIFICANCE =  0.3865
CRAMER'S V = 0.12169
CONTINGENCY COEFFICIENT = 0.16961
LAMBDA (ASYMMETRIC) =  0.02247 WITH GRADE        DEPENDENT.          =  0.0     WITH RUPEOR        DEPENDENT.
LAMBDA (SYMMETRIC) =  0.01942
UNCERTAINTY COEFFICIENT (ASYMMETRIC) =  0.01301 WITH GRADE        DEPENDENT.          =  0.03611 WITH RUPEOR        DEPENDENT.
UNCERTAINTY COEFFICIENT (SYMMETRIC) =  0.01913
KENDALL'S TAU B =  0.12024.       SIGNIFICANCE =  0.0641
KENDALL'S TAU C =  0.06321.       SIGNIFICANCE =  0.0641
GAMMA =  0.14348
SOMERS'S D (ASYMMETRIC) =  0.22700 WITH GRADE        DEPENDENT.          =  0.06347 WITH RUPEOR        DEPENDENT.
SOMERS'S D (SYMMETRIC) =  0.06528
ETA =  0.15563 WITH GRADE        DEPENDENT.          =  0.10524 WITH RUPEOR        DEPENDENT.
PEARSON'S R =  0.05887 SIGNIFICANCE =  0.1226

NUMBER OF MISSING OBSERVATIONS =    48
```

TABLE 18

RECALL QUESTION: WHAT CITY THE ACTION TOOK PLACE IN.

```
FILE   THESIS2   (CREATION DATE = 08/15/82)

* * * * * * * * * * * * * * * * * *  C R O S S T A B U L A T I O N  O F  * * * * * * * * * * * * * * * *
* * GRADE                                      BY CITY
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *    PAGE 1 OF 1
```

CITY				
COUNT				
ROW PCT	LOW RECA	UNDECIDE	HIGH REC	ROW
COL PCT	LL	D	ALL	TOTAL
TOT PCT	1.	2.	3.	
GRADE				
GRADE ONE	7	5	53	65
	10.8	7.7	81.5	34.6
	36.8	62.5	32.9	
	3.7	2.7	28.2	
GRADE TWO	6	2	50	58
	10.3	3.4	86.2	30.9
	31.6	25.0	31.1	
	3.2	1.1	26.6	
GRADE THREE	6	1	58	65
	9.2	1.5	89.2	34.6
	31.6	12.5	36.0	
	3.2	0.5	30.9	
COLUMN TOTAL	19	8	161	188
	10.1	4.3	85.6	100.0

```
3 OUT OF  9 ( 33.3%) OF THE VALID CELLS HAVE EXPECTED CELL FREQUENCY LESS THAN 5.0.
MINIMUM EXPECTED CELL FREQUENCY =  2.468
CHI SQUARE =  3.32924 WITH  4 DEGREES OF FREEDOM  SIGNIFICANCE = 0.5043
CRAMER'S V =  0.09410
CONTINGENCY COEFFICIENT =  0.13191
LAMBDA (ASYMMETRIC) =  0.04065 WITH GRADE        DEPENDENT.      = 0.0  WITH CITY        DEPENDENT.
LAMBDA (SYMMETRIC) =  0.03333
UNCERTAINTY COEFFICIENT (ASYMMETRIC) =  0.00843 WITH GRADE   DEPENDENT.      = 0.01749 WITH CITY        DEPENDENT.
UNCERTAINTY COEFFICIENT (SYMMETRIC) =  0.01118
KENDALL'S TAU B =  0.07835  SIGNIFICANCE =  0.1245
KENDALL'S TAU C =  0.04038  SIGNIFICANCE =  0.1245
GAMMA =  0.18575
SOMERS'S D (ASYMMETRIC) =  0.12669 WITH GRADE        DEPENDENT.      = 0.04845 WITH CITY        DEPENDENT.
SOMERS'S D (SYMMETRIC) =  0.07009
ETA =  0.13033 WITH GRADE  DEPENDENT.      = 0.06177 WITH CITY    DEPENDENT.
PEARSON'S R =  0.06170  SIGNIFICANCE =  0.2001
```

RECALL QUESTION: DID THEY TALK OR LOOK IN A HISTORY BOOK

+ + + + + + + + + + + + + + + +   C R O S S T A B U L A T I O N   O F   + + + + + + + + + + + + + + + + + +
   GRADE   BY TALKHIS
+ PAGE 1 OF 1

```
                      TALKHIS
             COUNT  I
             ROW PCT ILOW RECA NEUTRAL  HIGH REC   ROW
             COL PCT ILL                ALL        TOTAL
             TOT PCT I     1  I     2  I     3  I
GRADE        --------I--------I--------I--------I
               1     I    11  I     5  I    23  I    39
  GRADE ONE         I   28.2  I  12.8  I  59.0  I   31.5
                    I   78.6  I  45.5  I  23.2  I
                    I    8.9  I   4.0  I  18.5  I
                    -I--------I--------I--------I
               2     I     1  I     4  I    39  I    44
  GRADE TWO         I    2.3  I   9.1  I  88.6  I   35.5
                    I    7.1  I  36.4  I  39.4  I
                    I    0.8  I   3.2  I  31.5  I
                    -I--------I--------I--------I
               3     I     2  I     2  I    37  I    41
  GRADE THREE       I    4.9  I   4.9  I  90.2  I   33.1
                    I   14.3  I  18.2  I  37.4  I
                    I    1.6  I   1.6  I  29.8  I
                    -I--------I--------I--------I
             COLUMN      14       11       99      124
             TOTAL      11.3      8.9     79.8    100.0
```

0 OUT OF   9 (66.7%) OF THE VALID CELLS HAVE EXPECTED CELL FREQUENCY LESS THAN 5.0.
MINIMUM EXPECTED CELL FREQUENCY = 3.460
RAW CHI SQUARE =   19.07930 WITH   4 DEGREES OF FREEDOM. SIGNIFICANCE = 0.0008
CRAMER'S V =   0.27737
CONTINGENCY COEFFICIENT = 0.36517
LAMBDA (ASYMMETRIC) = 0.13750 WITH GRADE   DEPENDENT.   = 0.0   WITH TALKHIS DEPENDENT.
LAMBDA (SYMMETRIC) = 0.10476
UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.06743 WITH GRADE   DEPENDENT,   = 0.11546 WITH TALKHIS DEPENDENT.
UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.08514
KENDALL'S TAU B = 0.29532.   SIGNIFICANCE = 0.0002
KENDALL'S TAU C = 0.21130.   SIGNIFICANCE = 0.0002
GAMMA = 0.58383
SOMERS'S D (ASYMMETRIC) = 0.41194 WITH GRADE   DEPENDENT.   = 0.21156 WITH TALKHIS DEPENDENT.
SOMERS'S D (SYMMETRIC) = 0.27956
ETA = 0.32701 WITH GRADE   DEPENDENT.   = 0.38522 WITH TALKHIS DEPENDENT.
PEARSON'S R = 0.32693 SIGNIFICANCE = 0.0001

NUMBER OF MISSING OBSERVATIONS =   64

TABLE 19

322.

TABLE 20

RECALL QUESTION: THESIS ONLY, WAS IT A BALL OR...

* * * * * C R O S S T A B U L A T I O N O F * * * * *

BY BALLOR

PAGE 1 OF 1

BALLOR

COUNT ROW PCT COL PCT TOT PCT	LOW RECALL 1	RECA UNDECIDE D 2	HIGH REC ALL 3	ROW TOTAL
GRADE				
GRADE ONE 1	8 20.5 44.4 6.5	7 17.9 77.8 5.6	24 61.5 24.7 19.4	39 31.5
GRADE TWO 2	4 9.1 22.2 3.2	0 0.0 0.0 0.0	40 90.9 41.2 32.3	44 35.5
GRADE THREE 3	6 14.6 33.3 4.8	2 4.9 22.2 1.6	33 80.5 34.0 26.6	41 33.1
COLUMN TOTAL	18 14.5	9 7.3	97 78.2	124 100.0

3 OUT OF 9 (33.3%) OF THE VALID CELLS HAVE EXPECTED CELL FREQUENCY LESS THAN 5.0.
MINIMUM EXPECTED CELL FREQUENCY = 2.831
RAW CHI SQUARE = 13.81335 WITH 4 DEGREES OF FREEDOM. SIGNIFICANCE = 0.0078
CRAMER'S V = 0.23618
CONTINGENCY COEFFICIENT = 0.31688
LAMBDA (ASYMMETRIC) = 0.13750 WITH GRADE DEPENDENT. = 0.0 WITH BALLOR DEPENDENT.
LAMBDA (SYMMETRIC) = 0.10200
UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.05643 WITH GRADE DEPENDENT. = 0.09345 WITH BALLOR DEPENDENT.
UNCERTAINTY COEFFICIENT (SYMMETRIC) = C.07037
KENDALL'S TAU B = 0.15187.   SIGNIFICANCE = 0.0338
KENDALL'S TAU C = 0.11180.   SIGNIFICANCE = 0.0338
GAMMA = 0.29705
SOMERS'S D (ASYMMETRIC) = 0.20604 WITH GRADE DEPENDENT. = 0.11194 WITH BALLOR DEPENDENT.
SOMERS'S D (SYMMETRIC) = 0.14506
ETA = 0.21807 WITH GRADE DEPENDENT. = 0.23158 WITH BALLOR DEPENDENT.
PEARSON'S R = 0.13524 SIGNIFICANCE = 0.0671

NUMBER OF MISSING OBSERVATIONS =   64

324.

TABLE 21

COMPREHENSION QUESTION:
WHICH BOX HAS THE "MAGIC 5 WORDS" IN IT?

SITE CROSSTABULATION OF FIVEWS BY FIVEWS PAGE 1 OF 1

FIVEWS COUNT / ROW PCT / COL PCT / TOT PCT	LOW CCMP PREHEND 1.	UNDECIDE 2.	HIGH CCM PREHEND 3.	ROW TOTAL
SITE				
IMMACULATE CONCE 1.	3 / 4.7 / 75.0 / 1.6	3 / 4.7 / 27.3 / 1.6	58 / 90.6 / 33.5 / 30.9	64 / 34.0
SACRED HEART 2.	1 / 1.3 / 25.0 / 0.5	5 / 6.6 / 45.5 / 2.7	70 / 92.1 / 40.5 / 37.2	76 / 40.4
ST JUDE 3.	0 / 0.0 / 0.0	3 / 6.3 / 27.3 / 1.6	45 / 93.8 / 26.0 / 23.9	48 / 25.5
COLUMN TOTAL	4 / 2.1	11 / 5.9	173 / 92.0	188 / 100.0

6 OUT OF 9 (66.7%) OF THE VALID CELLS HAVE EXPECTED CELL FREQUENCY LESS THAN 5.0.
MINIMUM EXPECTED CELL FREQUENCY = 1.021
CHI SQUARE = 3.48696 WITH 4 DEGREES OF FREEDOM SIGNIFICANCE = 0.4799
CRAMER'S V = 0.09630
CONTINGENCY COEFFICIENT = 0.13494
LAMBDA (ASYMMETRIC) = 0.01786 WITH SITE DEPENDENT. = 0.0 WITH FIVEWS DEPENDENT.
LAMBDA (SYMMETRIC) = 0.01575
UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.00995 WITH SITE DEPENDENT. = 0.03315 WITH FIVEWS DEPENDENT.
UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.01530
KENDALL'S TAU B = 0.04558 SIGNIFICANCE = 0.2531
KENDALL'S TAU C = 0.02139 SIGNIFICANCE = 0.2531
GAMMA = 0.14634
SOMERS'S D (ASYMMETRIC) = 0.05549 WITH SITE DEPENDENT. = 0.02175 WITH FIVEWS DEPENDENT.
SOMERS'S D (SYMMETRIC) = 0.03144
ETA = 0.12984 WITH SITE DEPENDENT. = 0.08413 WITH FIVEWS DEPENDENT.
PEARSON'S R = 0.08321 SIGNIFICANCE = 0.1281

325.

TABLE 314

PRETEST QUESTION #1 HOW MANY "W" WORDS DO THEY
KNOW BEFORE THE TEST BY SITE

CROSSTABULATION OF
SITE BY WORDS

WORDS

		COUNT / ROW PCT / COL PCT / TOT PCT	ONE WORD 1.	TWO WORD 2.	THREE WO RDS 3.	FOUR WOR DS 4.	ALL FIVE WORDS 5.	I DONT K NOW 6.	ROW TOTAL
SITE										
IMMACULATE CONCE	1.		0 / 0.0 / 0.0 / 0.0	1 / 1.6 / 20.0 / 0.5	2 / 3.1 / 22.2 / 1.1	8 / 12.5 / 34.8 / 4.3	50 / 78.1 / 34.0 / 26.6	3 / 4.7 / 100.0 / 1.6	64 / 34.0
SACRED HEART	2.		1 / 1.3 / 100.0 / 0.5	4 / 5.3 / 80.0 / 2.1	6 / 7.9 / 66.7 / 3.2	12 / 15.8 / 52.2 / 6.4	53 / 69.7 / 36.1 / 28.2	0 / 0.0 / 0.0	76 / 40.4
ST JUDE	3.		0 / 0.0 / 0.0 / 0.0	0 / 0.0 / 0.0 / 0.0	2 / 4.1 / 11.1 / 0.5	3 / 6.3 / 13.0 / 1.6	44 / 91.7 / 29.9 / 23.4	0 / 0.0 / 0.0	48 / 25.5
COLUMN TOTAL			1 / 0.5	5 / 2.7	9 / 4.8	23 / 12.2	147 / 78.2	3 / 1.6	188 / 100.0

12 OUT OF 18 (66.7%) OF THE VALID CELLS HAVE EXPECTED CELL FREQUENCY LESS THAN 5.0.
MINIMUM EXPECTED CELL FREQUENCY = 0.255
CHI SQUARE = 17.42836 WITH 10 DEGREES OF FREEDOM   SIGNIFICANCE = 0.0654
CRAMER'S V = 0.21530
CONTINGENCY COEFFICIENT = 0.29127
LAMBDA (ASYMMETRIC) = 0.02679 WITH SITE   DEPENDENT.   = 0.0 WITH WORDS DEPENDENT.
LAMBDA (SYMMETRIC) = 0.01961
UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.04800 WITH SITE   DEPENDENT.   = 0.06612 WITH WORDS DEPENDENT.
UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.05562
KENDALL'S TAU B = 0.01332   SIGNIFICANCE = 0.4210
KENDALL'S TAU C = 0.00995   SIGNIFICANCE = 0.4210
GAMMA = 0.02748
SOMERS'S D (ASYMMETRIC) = 0.01772 WITH SITE   DEPENDENT.   = 0.01001 WITH WORDS DEPENDENT.
SOMERS'S D (SYMMETRIC) = 0.01280
ETA = 0.17222 WITH SITE   DEPENDENT.   = 0.24876 WITH WORDS DEPENDENT.
PEARSON'S R = 0.01927   SIGNIFICANCE = 0.3933

TABLE 22

****** CROSSTABULATION OF ****** SITE ****** BY WHERE ****** PAGE 1 OF 1

COMPREHENSION OF THE WORD "WHERE".

SITE	COUNT / ROW PCT / COL PCT / TOT PCT	WHERE LOW COMP PREHEND 1.	UNDECIDE 2.	HIGH COM PREHEND 3.	ROW TOTAL
IMMACULATE CONCE	1.	1 1.6 7.7 0.5	4 6.3 30.8 2.1	59 92.2 36.4 31.4	64 34.0
SACRED HEART	2.	7 5.2 53.8 3.7	7 9.2 53.8 3.7	62 81.6 38.3 33.0	76 40.4
ST JUDE	3.	5 10.4 38.5 2.7	2 4.2 15.4 1.1	41 85.4 25.3 21.8	48 25.5
COLUMN TOTAL		13 6.9	13 6.9	162 86.2	188 100.0

4 OUT OF 9 (44.4%) OF THE VALID CELLS HAVE EXPECTED CELL FREQUENCY LESS THAN 5.0.
MINIMUM EXPECTED CELL FREQUENCY = 3.319
CHI SQUARE = 5.68430 WITH 4 DEGREES OF FREEDOM SIGNIFICANCE = 0.2240
CRAMER'S V = 0.12295
CONTINGENCY COEFFICIENT = 0.17131
LAMBDA (ASYMMETRIC) = 0.0 WITH SITE DEPENDENT. = 0.0 WITH WHERE DEPENDENT.
LAMBDA (SYMMETRIC) = 0.0
UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.01665 WITH SITE DEPENDENT. = 0.03917 WITH WHERE DEPENDENT.
UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.02280
KENDALL'S TAU B = -0.05040 SIGNIFICANCE = 0.0917
KENDALL'S TAU C = -0.05466 SIGNIFICANCE = 0.0917
GAMMA = -0.22455
SOMERS'S D (ASYMMETRIC) = -0.14700 WITH SITE DEPENDENT. = -0.05559 WITH WHERE DEPENDENT.
SOMERS'S D (SYMMETRIC) = -0.05668
ETA = 0.14027 WITH SITE DEPENDENT. = 0.14566 WITH WHERE DEPENDENT.
PEARSON'S R = -0.11744 SIGNIFICANCE = 0.0542

TABLE 23

COMPREHENSION QUESTION ABOUT TRANSPORTATION IN WINDSOR

************* CROSSTABULATION OF *************
TPORT2 BY TPORT2 PAGE 1 OF 1

```
                TPORT2
        COUNT  I
        ROW PCT I LOW COMP  UNDECIDE  HIGH COM    ROW
        COL PCT I          PREHEND     TOTAL
        TOT PCT I   1.I      2.I      3.I
SITE    --------I---------I---------I---------I
           1.   I    2    I    1    I   61    I   64
IMMACULATE CONCE I  40.0  I  33.3  I  65.3  I  34.0
                 I   1.1  I   0.5  I  33.9  I
                 I        I        I  32.4  I
        --------I---------I---------I---------I
           2.   I    2    I    2    I   72    I   76
SACRED HEART     I  40.0  I  66.7  I  94.7  I  40.4
                 I   1.1  I   1.1  I  40.0  I
                 I        I        I  38.3  I
        --------I---------I---------I---------I
           3.   I    1    I    0    I   47    I   48
ST JUDE          I  20.0  I   0.0  I  97.9  I  25.5
                 I   0.5  I   0.0  I  26.1  I
                 I        I        I  25.0  I
        --------I---------I---------I---------I
COLUMN           5         3        180       168
TOTAL           2.7       1.6      95.7      100.0
```

6 OUT OF 9 (66.7%) OF THE VALID CELLS HAVE EXPECTED CELL FREQUENCY LESS THAN 5.0.
MINIMUM EXPECTED CELL FREQUENCY = 0.786
CHI SQUARE = 1.42265 WITH 4 DEGREES OF FREEDOM SIGNIFICANCE = 0.8402
CRAMER'S V = 0.06151
CONTINGENCY COEFFICIENT = 0.08666
LAMBDA (ASYMMETRIC) = 0.0 WITH SITE DEPENDENT. = 0.0 WITH TPORT2 DEPENDENT.
LAMBDA (SYMMETRIC) = 0.0
UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.00518 WITH SITE DEPENDENT. = 0.02744 WITH TPORT2 DEPENDENT.
UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.00871
KENDALL'S TAU B = 0.04068 SIGNIFICANCE = 0.2770
KENDALL'S TAU C = 0.01417 SIGNIFICANCE = 0.2770
GAMMA = 0.17938
SOMERS'S D (ASYMMETRIC) = 0.11478 WITH SITE DEPENDENT. = 0.01442 WITH TPORT2 DEPENDENT.
SOMERS'S D (SYMMETRIC) = 0.02562
ETA = 0.04855 WITH SITE DEPENDENT. = 0.04689 WITH TPORT2 DEPENDENT.
PEARSON'S R = 0.03830 SIGNIFICANCE = 0.3009

TABLE 23A

PRE-TEST QUESTION #2 WHAT DO THEY UNDERSTAND ABOUT THE WORD TRANSPORTATION BEFORE THE TEST

* C R O S S T A B U L A T I O N O F *
* * SITE BY TPQRT1
* PAGE 1 OF 1 * * *

	TPQRT1			
COUNT ROW PCT COL PCT TOT PCT	LOW KNOW LEDGE 1.	UNDECIDE D 2.	HIGH KNO WLEDGE 3.	ROW TOTAL
SITE				
IMMACULATE CONCE 1.	22 34.4 55.0 11.7	21 32.8 30.0 11.2	21 32.8 26.9 11.2	64 34.0
SACRED HEART 2.	13 17.1 32.5 6.9	41 53.9 58.6 21.8	22 28.9 28.2 11.7	76 40.4
ST JUDE 3.	5 10.4 12.5 2.7	8 16.7 11.4 4.3	35 72.9 44.9 18.6	48 25.5
COLUMN TOTAL	40 21.3	70 37.2	78 41.5	188 100.0

CHI SQUARE = 35.40337 WITH 4 DEGREES OF FREEDOM SIGNIFICANCE = 0.0000
CRAMER'S V = 0.30695
CONTINGENCY COEFFICIENT = 0.39809
LAMBDA (ASYMMETRIC) = 0.19643 WITH SITE DEPENDENT. = 0.10112 WITH TPQRT1 DEPENDENT.
LAMBDA (SYMMETRIC) = 0.18919
UNCERTAINTY COEFFICIENT (ASYMMETRIC) = 0.08436 WITH SITE DEPENDENT. = 0.03909 WITH TPQRT1 DEPENDENT.
UNCERTAINTY COEFFICIENT (SYMMETRIC) = 0.08512
KENDALL'S TAU B = 0.29280 SIGNIFICANCE = 0.0000
KENDALL'S TAU C = 0.27561 SIGNIFICANCE = 0.0000
GAMMA = 0.41634
SOMERS'S D (ASYMMETRIC) = 0.28533 WITH SITE DEPENDENT. = 0.28010 WITH TPQRT1 DEPENDENT.
SOMERS'S D (SYMMETRIC) = 0.28279
ETA = 0.31230 WITH SITE DEPENDENT. = 0.31187 WITH TPQRT1 DEPENDENT.
PEARSON'S R = 0.30907 SIGNIFICANCE = 0.0000

TABLE 24

IDENTIFICATION
QUESTION:
FAVOURITE CHARACTER, FEMALE, THESIS PROGRAM, "WHERE" T-SHIRT

* * * * * * * * * * A N A L Y S I S   O F   V A R I A N C E * * * * * * * * * *
    FACHAR8
    BY AGE
        SEX
        GRADE
* *

SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F	SIGNIF OF F
MAIN EFFECTS	10.567	6	1.761	5.688	0.000
AGE	4.352	3	1.451	4.684	0.005
SEX	2.634	1	2.634	8.506	0.005
GRADE	0.725	2	0.362	1.170	0.316
EXPLAINED	10.567	6	1.761	5.688	0.000
RESIDUAL	21.366	69	0.310		
TOTAL	31.934	75	0.426		

    188 CASES WERE PROCESSED.
    112 CASES (59.6 PCT) WERE MISSING.

SPSS BATCH SYSTEM

FILE   THESIS2   (CREATION DATE = 08/19/82)

* * * * M U L T I P L E   C L A S S I F I C A T I O N   A N A L Y S I S * * * *
    FACHAR8
    BY AGE
        SEX
        GRADE
* *

GRAND MEAN = 2.38

VARIABLE + CATEGORY	N	UNADJUSTED DEV'N	ETA	ADJUSTED FOR INDEPENDENTS DEV'N	BETA	ADJUSTED FOR INDEPENDENTS + COVARIATES DEV'N	BETA
AGE							
6 AGE SIX	16	-0.57		-0.76			
7 AGE SEVEN	28	0.12		-0.01			
8 AGE EIGHT	27	0.14		0.33			
9 AGE NINE	5	0.42		0.71			
			0.47		0.68		
SEX							
1 MALE	40	-0.21		-0.19			
2 FEMALE	36	0.23		0.20			
			0.34		0.29		
GRADE							
1 GRADE ONE	25	-0.26		0.22			
2 GRADE TWO	27	0.14		0.33			
3 GRADE THREE	24	0.12		-0.27			
			0.22		0.31		

MULTIPLE R SQUARED   0.331
MULTIPLE R   0.575

IDENTIFICATION
QUESTION: TABLE 25
FAVOURITE CHARACTER, MALE, THESIS PROGRAM, "WHEN" T-SHIRT

* * * * * * * * * A N A L Y S I S   O F   V A R I A N C E * * * * * * * * * *
                  FACHAR9
          3Y AGE
              GRADE
* *

SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F	SIGNIF OF F
MAIN EFFECTS	10.873	5	2.175	5.238	0.000
AGE	7.478	3	2.493	6.004	0.001
GRADE	1.059	2	0.529	1.275	0.286
EXPLAINED	10.873	5	2.175	5.238	0.000
RESIDUAL	29.061	70	0.415		
TOTAL	39.934	75	0.532		

      188 CASES WERE PROCESSED.
      112 CASES (59.6 PCT) WERE MISSING.

SPSS BATCH SYSTEM

FILE   THESIS2 (CREATION DATE = 08/19/82)

* * *   M U L T I P L E   C L A S S I F I C A T I O N   A N A L Y S I S * * *
                  FACHAR9
          BY AGE
              GRADE
* *

GRAND MEAN =   2.38

VARIABLE + CATEGORY	N	UNADJUSTED DEV'N ETA	ADJUSTED FOR INDEPENDENTS DEV'N BETA	ADJUSTED FOR INDEPENDENTS + COVARIATES DEV'N BETA
AGE				
6 AGE SIX	16	-0.69	-1.00	
7 AGE SEVEN	28	0.15	0.09	
8 AGE EIGHT	27	0.21	0.42	
9 AGE NINE	5	0.22	0.49	
		0.50	0.75	
GRADE				
1 GRADE ONE	25	-0.30	0.31	
2 GRADE TWO	27	0.14	-0.05	
3 GRADE THREE	24	0.16	-0.27	
		0.29	0.32	

MULTIPLE R SQUARED   0.272
MULTIPLE R   0.522

IDENTIFICATION
QUESTION: TABLE 26
FAVOURITE CHARACTER, FEMALE, THESIS PROGRAM, "WHY" T-SHIRT

* * * * * * * * * A N A L Y S I S   O F   V A R I A N C E * * * * * * * * * *
          FCHAR10
     BY AGE
          GRADE
* *

SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F	SIGNIF OF F
MAIN EFFECTS	5.949	5	1.190	3.937	0.003
AGE	3.418	3	1.139	3.770	0.014
GRADE	0.168	2	0.084	0.278	0.758
EXPLAINED	5.949	5	1.190	3.937	0.003
RESIDUAL	21.156	70	0.302		
TOTAL	27.105	75	0.361		

     188 CASES WERE PROCESSED.
     112 CASES (59.6 PCT) WERE MISSING.

SPSS BATCH SYSTEM

FILE   THESIS2   (CREATION DATE = 08/19/82)

* * *   M U L T I P L E   C L A S S I F I C A T I O N   A N A L Y S I S   * * *
          FCHAR10
     BY AGE
          GRADE
* *

GRAND MEAN =   2.66

VARIABLE + CATEGORY	N	UNADJUSTED DEV'N ETA	ADJUSTED FOR INDEPENDENTS DEV'N BETA	ADJUSTED FOR INDEPENDENTS + COVARIATES DEV'N BETA
AGE				
6 AGE SIX	16	-0.53	-0.64	
7 AGE SEVEN	28	0.16	0.12	
8 AGE EIGHT	27	0.12	0.21	
9 AGE NINE	5	0.14	0.27	
		0.46	0.56	
GRADE				
1 GRADE ONE	25	-0.26	0.11	
2 GRADE TWO	27	0.16	0.01	
3 GRADE THREE	24	0.09	-0.13	
		0.31	0.16	
MULTIPLE R SQUARED			0.219	
MULTIPLE R			0.468	

TABLE 27

IDENTIFICATION QUESTION:
FAVOURITE CHARACTER, COST40-505 PROGRAM, FEMALE

* * * * * * * * * A N A L Y S I S   O F   V A R I A N C E * * * * * * * * * *
            FACHAR1
        BY AGE
            GRADE
* *

SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F	SIGNIF OF F
MAIN EFFECTS	2.642	5	0.528	1.387	0.242
AGE	1.119	3	0.373	0.979	0.409
GRADE	2.457	2	1.223	3.225	0.047
EXPLAINED	2.642	5	0.528	1.387	0.242
RESIDUAL	22.092	58	0.381		
TOTAL	24.734	63	0.393		

    188 CASES WERE PROCESSED.
    124 CASES (66.0 PCT) WERE MISSING.

SPSS BATCH SYSTEM

FILE   THESIS2 (CREATION DATE = 08/19/82)

* * *   M U L T I P L E   C L A S S I F I C A T I O N   A N A L Y S I S   * * *
            FACHAR1
        BY AGE
            GRADE
* *

GRAND MEAN =   2.36

VARIABLE + CATEGORY	N	UNADJUSTED DEV'N	ETA	ADJUSTED FOR INDEPENDENTS DEV'N	BETA	ADJUSTED FOR INDEPENDENTS + COVARIATES DEV'N	BETA
AGE							
6 AGE SIX	19	0.01		0.40			
7 AGE SEVEN	12	-0.11		0.18			
8 AGE EIGHT	23	0.03		-0.22			
9 AGE NINE	10	0.04		-0.47			
			0.09		0.52		
GRADE							
1 GRADE ONE	26	-0.05		-0.39			
2 GRADE TWO	14	-0.22		-0.14			
3 GRADE THREE	24	0.18		0.51			
			0.25		0.65		

MULTIPLE R SQUARED   0.107
MULTIPLE R   0.327

333.

TABLE 28

APPEAL QUESTION:
SEGMENT WHERE ACTORS ARE CHEERING, COST40-505 PROGRAM

* * * * * * * * A N A L Y S I S   O F   V A R I A N C E * * * * * * * * *
SECHEER
BY SEX
GRADE
* *

SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F	SIGNIF OF F
MAIN EFFECTS	8.206	3	2.735	5.555	0.002
SEX	7.453	1	7.453	15.135	0.000
GRADE	1.233	2	0.617	1.252	0.293
EXPLAINED	8.206	3	2.735	5.555	0.002
RESIDUAL	29.544	60	0.492		
TOTAL	37.750	63	0.599		

    188 CASES WERE PROCESSED.
    124 CASES (66.0 PCT) WERE MISSING.

SPSS BATCH SYSTEM

FILE   THESIS2 (CREATION DATE = 06/19/82)

* * * * * M U L T I P L E   C L A S S I F I C A T I O N   A N A L Y S I S * * * * *
SECHEER
BY SEX
GRADE
* *

GRAND MEAN =   2.44

VARIABLE + CATEGORY	N	UNADJUSTED DEV'N	ETA	ADJUSTED FOR INDEPENDENTS DEV'N	BETA	ADJUSTED FOR INDEPENDENTS + COVARIATES DEV'N	BETA
SEX							
1 MALE	26	-0.40		-0.42			
2 FEMALE	38	0.27		0.29			
			0.43		0.45		
GRADE							
1 GRADE ONE	26	-0.13		-0.15			
2 GRADE TWO	14	0.06		-0.02			
3 GRADE THREE	24	0.10		0.17			
			0.14		0.19		

MULTIPLE R SQUARED   0.217
MULTIPLE R   0.466

TABLE 29

APPEAL QUESTION:
WOULD YOU TELL A FRIEND TO WATCH?

* * * * * * * * * A N A L Y S I S O F V A R I A N C E * * * * * * * * * *
              TELFREN
          BY SEX
              GRADE
* *

SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F	SIGNIF OF F
MAIN EFFECTS	7.208	3	2.403	3.911	0.010
SEX	6.275	1	6.275	10.215	0.002
GRADE	1.459	2	0.730	1.188	0.301
EXPLAINED	7.208	3	2.403	3.911	0.010
RESIDUAL	113.025	184	0.614		
TOTAL	120.233	187	0.643		

188 CASES WERE PROCESSED.
0 CASES (0.0 PCT) WERE MISSING.

SPSS BATCH SYSTEM

FILE   THESIS2 (CREATION DATE = 08/19/82)

* * * M U L T I P L E C L A S S I F I C A T I O N A N A L Y S I S * * *
              TELFREN
          BY SEX
              GRADE
* *

GRAND MEAN =   2.44

VARIABLE + CATEGORY	N	UNADJUSTED DEV'N ETA	ADJUSTED FOR INDEPENDENTS DEV'N BETA	ADJUSTED FOR INDEPENDENTS + COVARIATES DEV'N BETA
SEX				
1 MALE	95	-0.17	-0.18	
2 FEMALE	93	0.18	0.19	
		0.22	0.23	
GRADE				
1 GRADE ONE	65	-0.08	-0.09	
2 GRADE TWO	58	-0.01	-0.03	
3 GRADE THREE	65	0.09	0.12	
		0.09	0.11	
MULTIPLE R SQUARED			0.060	
MULTIPLE R			0.245	

TABLE 30

APPEAL QUESTION: SEGMENT WHERE THE ACTORS ARE TALKING

* * * * * * * * A N A L Y S I S   O F   V A R I A N C E * * * * * * * * * *
                    SEGTALK
            BY AGE
                SITE
                GRADE
* *

SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F	SIGNIF OF F
MAIN EFFECTS	24.687	6	4.115	6.790	0.000
AGE	2.409	3	0.803	1.325	0.269
SITE	10.550	1	10.550	17.410	0.000
GRADE	1.990	2	0.995	1.642	0.198
EXPLAINED	24.687	6	4.115	6.790	0.000
RESIDUAL	80.598	133	0.606		
TOTAL	105.285	139	0.757		

    188 CASES WERE PROCESSED.
    48 CASES (25.5 PCT) WERE MISSING.

SPSS BATCH SYSTEM

FILE   THESIS2 (CREATION DATE = 08/19/82)

* * * * M U L T I P L E   C L A S S I F I C A T I O N   A N A L Y S I S * * * *
                    SEGTALK
            BY   AGE
                SITE
                GRADE
* *

GRAND MEAN =   1.93

VARIABLE + CATEGORY	N	UNADJUSTED DEV'N	ETA	ADJUSTED FOR INDEPENDENTS DEV'N	BETA	ADJUSTED FOR INDEPENDENTS + COVARIATES DEV'N	BETA
AGE							
6 AGE SIX	35	-0.47		-0.11			
7 AGE SEVEN	40	0.22		0.25			
8 AGE EIGHT	50	0.13		-0.08			
9 AGE NINE	15	0.07		-0.02			
			0.32		0.18		
SITE							
1 IMMACULATE CONCEPTIO	64	-0.35		-0.31			
2 SACRED HEART	76	0.33		0.26			
			0.37		0.33		
GRADE							
1 GRADE ONE	51	-0.34		-0.31			
2 GRADE TWO	41	0.19		0.02			
3 GRADE THREE	48	0.20		0.32			
			0.30		0.30		

MULTIPLE R SQUARED   0.234
MULTIPLE R   0.484

TABLE 31

APPEAL QUESTION: SEGMENT ABOUT PLANES

```
* * * * * * * * * A N A L Y S I S   O F   V A R I A N C E * * * * * * * * *
                   SEPLANE
            BY  AGE
                SITE
                GRADE
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
```

SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F	SIGNIF OF F
MAIN EFFECTS	7.269	6	1.211	2.807	0.014
AGE	0.476	3	0.159	0.363	0.777
SITE	5.237	1	5.237	12.132	0.001
GRADE	0.710	2	0.355	0.822	0.442
EXPLAINED	7.269	6	1.211	2.807	0.014
RESIDUAL	50.504	117	0.432		
TOTAL	57.773	123	0.470		

188 CASES WERE PROCESSED.
64 CASES (34.0 PCT) WERE MISSING.

SPSS BATCH SYSTEM

FILE   THESIS2 (CREATION DATE = 09/15/82)

```
* * *  M U L T I P L E   C L A S S I F I C A T I O N   A N A L Y S I S  * * *
                  SEPLANE
           BY  AGE
               SITE
               GRADE
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
```

GRAND MEAN =   2.66

VARIABLE + CATEGORY	N	UNADJUSTED DEV'N ETA	ADJUSTED FOR INDEPENDENTS DEV'N BETA	ADJUSTED FOR INDEPENDENTS + COVARIATES DEV'N BETA
AGE				
6 AGE SIX	27	-0.11	-0.09	
7 AGE SEVEN	41	0.12	0.09	
8 AGE EIGHT	46	-0.05	-0.09	
9 AGE NINE	10	0.04	0.02	
		0.13		0.11
SITE				
2 SACRED HEART	76	-0.16	-0.16	
3 ST JUDE	48	0.26	0.26	
		0.30		0.33
GRADE				
1 GRADE ONE	39	-0.10	-0.11	
2 GRADE TWO	44	0.16	0.12	
3 GRADE THREE	41	-0.08	-0.03	
		0.17		0.15

MULTIPLE R SQUARED   0.126
MULTIPLE R   0.355

TABLE 33

OPINION QUESTION:
MY TEACHER BRINGS TV TO CLASS SO THAT I CAN PLAY AND NOT READ
SO MUCH. * * * * * * * * A N A L Y S I S O F V A R I A N C E * * * * * * * * *
NOREMCH
BY AGE
SITE
* *

SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F	SIGNIF OF F
MAIN EFFECTS	21.132	4	5.283	9.320	0.000
AGE	6.771	2	3.386	5.972	0.003
SITE	14.840	2	7.420	13.091	0.000
EXPLAINED	21.132	4	5.283	9.320	0.000
RESIDUAL	66.884	118	0.567		
TOTAL	88.016	122	0.721		

188 CASES WERE PROCESSED.
65 CASES (34.6 PCT) WERE MISSING.

SPSS BATCH SYSTEM

FILE   THESIS2 (CREATION DATE = 08/19/82)

* * *   M U L T I P L E   C L A S S I F I C A T I O N   A N A L Y S I S   * * *
NOREMCH
BY   AGE
SITE
* *

GRAND MEAN =   1.58

VARIABLE + CATEGORY	N	UNADJUSTED DEV'N	ETA	ADJUSTED FOR INDEPENDENTS DEV'N	BETA	ADJUSTED FOR INDEPENDENTS + COVARIATES DEV'N	BETA
AGE							
7 AGE SEVEN	34	-0.17		-0.29			
8 AGE EIGHT	69	0.19		0.21			
9 AGE NINE	20	-0.38		-0.24			
			0.27		0.28		
SITE							
1 IMMACULATE CONCEPTIO	38	-0.56		-0.52			
2 SACRED HEART	51	0.15		0.17			
3 ST JUDE	34	0.33		0.34			
			0.40		0.42		

MULTIPLE R SQUARED   0.240
MULTIPLE R   0.490

TABLE 34

OPINION QUESTION: YOU CAN LEARN MORE FROM TV

```
* * * * * * * * * A N A L Y S I S   O F   V A R I A N C E * * * * * * * * * *
              LERNMOR
         BY   AGE
              SITE
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
```

SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F	SIGNIF OF F
MAIN EFFECTS	16.081	4	4.020	5.960	0.000
AGE	0.885	2	0.443	0.655	0.521
SITE	15.001	2	7.501	11.123	0.000
EXPLAINED	16.081	4	4.020	5.960	0.000
RESIDUAL	79.593	118	0.675		
TOTAL	95.674	122	0.784		

```
    188 CASES WERE PROCESSED.
    65 CASES ( 34.6 PCT) WERE MISSING.
```

SPSS BATCH SYSTEM

FILE   THESIS2 (CREATION DATE = 08/19/82)

```
* * * M U L T I P L E   C L A S S I F I C A T I O N   A N A L Y S I S * * *
              LERNMOR
         BY   AGE
              SITE
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
```

GRAND MEAN =   2.41

VARIABLE + CATEGORY	N	UNADJUSTED DEV'N	ETA	ADJUSTED FOR INDEPENDENTS DEV'N	BETA	ADJUSTED FOR INDEPENDENTS + COVARIATES DEV'N	BETA
AGE							
7 AGE SEVEN	34	0.01		-0.03			
8 AGE EIGHT	69	0.06		0.06			
9 AGE NINE	20	-0.21		-0.17			
			0.11		0.10		
SITE							
1 IMMACULATE CONCEPTIO	38	0.01		0.02			
2 SACRED HEART	51	0.34		0.33			
3 ST JUDE	34	-0.52		-0.53			
			0.40		0.40		
MULTIPLE R SQUARED					0.169		
MULTIPLE R					0.410		

TABLE 35

OPINION QUESTION:
I LIKE TV IN CLASS BECAUSE I DON"T HAVE TO WORK SO HARD

```
* * * * * * * * * A N A L Y S I S   O F   V A R I A N C E * * * * * * * * * *
              TVNWORK
        BY  AGE
            SITE
            GRADE
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
```

SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F	SIGNIF OF F
MAIN EFFECTS	42.643	5	8.529	13.256	0.000
AGE	2.203	2	1.102	1.713	0.185
SITE	33.107	2	16.553	25.729	0.000
GRADE	1.209	1	1.209	1.880	0.173
EXPLAINED	42.643	5	8.529	13.256	0.000
RESIDUAL	75.275	117	0.643		
TOTAL	117.918	122	0.967		

```
        188 CASES WERE PROCESSED.
        65 CASES ( 34.6 PCT) WERE MISSING.
```

```
SPSS BATCH SYSTEM
FILE    THESIS2  (CREATION DATE = 08/19/82)
* * *   M U L T I P L E   C L A S S I F I C A T I O N   A N A L Y S I S   * * *
              TVNWORK
        BY  AGE
            SITE
            GRADE
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
GRAND MEAN =     2.13
```

VARIABLE + CATEGORY	N	UNADJUSTED DEV'N	ETA	ADJUSTED FOR INDEPENDENTS DEV'N	BETA	ADJUSTED FOR INDEPENDENTS + COVARIATES DEV'N	BETA
AGE							
7 AGE SEVEN	34	0.25		-0.06			
8 AGE EIGHT	69	0.04		0.11			
9 AGE NINE	20	-0.58		-0.26			
			0.28		0.14		
SITE							
1 IMMACULATE CONCEPTIO	38	-0.55		-0.51			
2 SACRED HEART	51	0.45		0.43			
3 ST JUDE	34	-0.37		-0.36			
			0.57		0.54		
GRADE							
2 GRADE TWO	58	0.21		0.15			
3 GRADE THREE	65	-0.19		-0.13			
			0.21		0.14		
MULTIPLE R SQUARED					0.362		
MULTIPLE R					0.601		

TABLE 36

AMMOUNT OF AT HOME TV VIEWING

* * * * * * * * A N A L Y S I S   O F   V A R I A N C E * * * * * * * * * *
           TVVIEW
      BY SEX
         SITE
* *

SOURCE OF VARIATION	SUM OF SQUARES	DF	MEAN SQUARE	F	SIGNIF OF F
MAIN EFFECTS	13.876	3	4.625	5.026	0.002
SEX	6.688	1	6.688	7.267	0.008
SITE	6.536	2	4.268	4.635	0.011
EXPLAINED	13.876	3	4.625	5.026	0.002
RESIDUAL	169.336	184	0.920		
TOTAL	183.211	187	0.980		

        188 CASES WERE PROCESSED.
          0 CASES (0.0 PCT) WERE MISSING.

SPSS BATCH SYSTEM

FILE   THESIS2 (CREATION DATE = 08/19/82)

* * *   M U L T I P L E   C L A S S I F I C A T I O N   A N A L Y S I S   * * *
           TVVIEW
      BY   SEX
            SITE
* *

GRAND MEAN =   2.16

VARIABLE + CATEGORY	N	UNADJUSTED DEV'N	ETA	ADJUSTED FOR INDEPENDENTS DEV'N	BETA	ADJUSTED FOR INDEPENDENTS + COVARIATES DEV'N	BETA
SEX							
1 MALE	95	0.17		0.19			
2 FEMALE	93	-0.17		-0.19			
			0.17		0.19		
SITE							
1 IMMACULATE CONCEPTIO	64	0.06		0.10			
2 SACRED HEART	76	0.16		0.15			
3 ST JUDE	48	-0.33		-0.36			
			0.20		0.22		

MULTIPLE R SQUARED   0.076
MULTIPLE R   0.275

344.

342.

VITA AUCTORIS

Richard M. Dunn was born on March 23, 1952. He graduated with honours from F. J. Brennan High School in Windsor, Ontario, in 1971. He attended the University of Windsor where he completed a Bachelor of Fine Arts degree in Dramatic Arts in 1976. Upon graduation, Richard worked as an actor/stage manager for two years with the children's theatre company, "The Actor's Trunk Company" which was based in Toronto. In 1978, he returned to the University of Windsor to pursue his Masters Degree in Communication Studies. In 1979 he was elected as President of The Graduate Student Society and in 1980 he served as Social Director. During the 1980-81 school year, Richard taught as a Sessional Instructor teaching Mass Communication Theory (both Introductory and Advanced) for the Department of Communication Studies. He received his Masters Degree in the Fall of 1982. He is currently studying at the Faculty of Education of the University of Windsor where he intends to specialize in English, Drama and Communications at the Intermediate/Senoir level.