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AN EXAMINATION OF THE RELATIVE EFFECTS OF
AFFECTIVE, COGNITIVE, AND COMPOSITE PREVIEWS ON
LEARNING FROM A BILINGUAL EDUCATIONAL TELEVISION PROGRAM

Eleanor Coleman

A Thesis

in

The Department

of

Education

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ABSTRACT

ELEANOR COLEMAN

AN EXAMINATION OF THE RELATIVE EFFECTS OF AFFECTIVE,
COGNITIVE, AND COMPOSITE PREVIEWS ON LEARNING
FROM A BILINGUAL EDUCATIONAL TELEVISION PROGRAM

This study compared the effectiveness of three videotaped preview segments in increasing learning from a bilingual educational television program. One introduced the program's cognitive content. Another focused on affective content and introduced characters acting as behaviour models. The third preview combined cognitive and affective content.

The program and previews were shown to 137 anglophone fourth-grade students in two Montreal schools. Subjects were randomly assigned to viewing groups comprised of the three preview conditions, a fourth, "non-organizing" preview condition (created to test the effects of the program only), and a control condition. Tests of vocabulary recognition, information acquisition, and attitude towards learning and speaking French and making cross-cultural contacts were administered.

Vocabulary recognition and information test scores were higher for the group viewing the program than for the control group. The group viewing the program preceded by a "cognitive" preview had a significantly higher vocabulary score than the affective, composite and control groups. The ANOVA procedures did not show the other previews to influence learning from the program.

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And before the thesis, there was the production . . . Thanks to all who helped "Mosaic City" come into being: the students of the 1977 television production class, volunteer crew members Sophia Eliades and Esther Adagala, instructor Leonard Weinstein, and studio officer Paul Vinet, whose combination of technical know-how and creativity helped us immeasurably.

Performers Steve Rollerson and Greta Tabachnik gave the program its magic; Marilyn Malkin and Pierre Croteau gave it fantasy; the children of St. Patrick's school gave it realism; Christiane and Phillipe Lemieux brought its song to life.

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"Mosaic City" was conceived and produced in conjunction with David Stoloff. The program owes much to his talent and perseverance. Thank you, David.

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CHAPTER I
INTRODUCTION

The purpose of this study was to explore some factors affecting learning from a bilingual educational television program with a view to improving the instructional capacity of future programs. A half-hour program was produced for fourth and fifth-grade anglophone elementary school children. It was intended to teach children new French vocabulary and provide models of positive attitudes toward making bilingual and multi-cultural contacts. Three separate previews were designed to improve cognitive and affective gains from the program.

Primarily, the study examined the value of applying modeling theory to the design of a program preview. In doing so, it dealt with several salient areas of research: the manipulation of production variables, the value of preview segments, language acquisition through television, and the affective domain of televised language instruction.

Television has an important potential role to play in promoting co-operation among ethnic groups. In a society like Quebec, where bilingualism is becoming almost as essential as literacy, people need to begin acquiring the second language as early as is possible. One approach to this problem is to provide models of positive attitudes toward second language learning in addition to providing instruction in the language.

This study then, was concerned with introducing elements

of a second language and motivating viewers to further study and practise it in the classroom and in their neighbourhoods.

THE RESEARCH PROBLEM

The basic problem underlying the research problems dealt with in this study is: How can an educational television program be designed so that maximal cognitive and affective gains occur? The term "cognitive" refers to the process of knowing, based upon perception, introspection, or memory. The term "affective" refers to the emotional aspects of behaviour - preferences, attitudes, values, morals, and character (Ringness, 1975).

Research on learning from various media has shown that, in some cases, an organized introduction to the content being presented will improve learning of that content (May and Lumsdaine, 1958; Ausubel and Fitzgerald, 1962; O'Meara, 1974). A central feature of this introductory material seems to be the provision of learning objectives.

Based on this information, three alternative advance organizers were produced as previews to the television program. A fourth preview was produced to provide a time-filler, so that the effects of the program by itself could be compared with those of the program accompanied by a preview segment.

Each preview had a specific objective in this study:

(a) Preview of Affective Content (Affective Preview):

This preview segment was designed to introduce to

the viewers those characters expressing through words and actions the desire to learn and speak French and to make contacts with persons from other ethnic backgrounds. It provided questions on content related to these affective objectives and informed viewers that they would be asked the answers to these questions at the end of the program.

(b) Preview of Cognitive Content (Cognitive Preview):

This preview segment was designed to expose viewers to the vocabulary content of the program and encourage them to watch for stimuli connected with that vocabulary. It asked the viewers to either listen for the French word in the program that would accompany a given image or to learn the meaning of the French expression shown in a brief program excerpt. Viewers were informed that they would be asked questions at the end of the program. Seventeen French words and expressions (those being taught in the program) were presented.

(c) Composite Preview: This preview segment simply combined the two above previews, also informing the viewers of a question period following the program.

(d) Non-organizing Preview: As mentioned, this preview was designed so that the television program itself could be evaluated. It was necessary to investigate the effects of the program without an organized introduction in order to be able to assess the effectiveness of the previews designed.

Unlike the first three intrductions, the non-organizing preview simply showed slides with a musical accompaniment. No objectives were given, nor was mention made of a post-viewing question period.

The program and previews were tested out on elementary school children, leading to the following specific research problems:

1. What will be the effect of exposure to the educational television program, "Mosaic City" on knowledge of French vocabulary, and on attitudes toward learning and speaking French and making cross-cultural contacts?
2. What will be the effect of exposure to a program preview and program which introduces the program's affective content by presenting behaviour models on cognitive and affective gains from that program?
3. What will be the effect of exposure to a program preview which introduces the program's cognitive content by presenting clues on vocabulary to be learned on cognitive gains from that program?
4. What will be the effect of exposure to a program preview which combines the above-mentioned previews of cognitive and affective content on cognitive and affective gains from that program?

During the course of the experiment, it was realized that various types of exposure to francophones and the French language could affect children's receptiveness to a bilingual program, even when subjects were being selected on a random basis. Consequently, data was gathered on the

presence of French in the environment through the use of French in the home, exposure to the mass media and contact with French-speaking playmates.

RELATED RESEARCH

This study sought to determine the effects of three types of previews on cognitive and affective gains from a bilingual educational television program. In addition, it examined the value of using behaviour models in a preview of affective content.

In reviewing the relevant literature, it will be placed in the context of current research being done on educational media (Section A). The second major heading, "The Use of Introductory Materials" will consider the use of introductory material in instructional presentations (Section B).

Because the televised previews in this experiment are divided into cognitive and affective learning content, these two concepts will be described both theoretically and as they relate to the study (Section C). The discussion will then turn to the effects of attitudes on language learning. This relates directly to the hypothesis that a composite preview which introduces and organizes a program's affective and cognitive content, is likely to increase learning from the program in both domains (Section D).

It was also deemed necessary to consider modeling theory, especially as it applies to learning from television. The rationale for the kinds of behaviour models used in

"Mosaic City" will also be made clear (Section E).

A. Research on Educational Media

The main advantage of undertaking research in educational media lies in the fact that media, being tangible, are usually more easily manipulated than teaching methods and procedures. Variables may be isolated with greater certainty and a constancy of treatment can be maintained (Lumsdaine, 1963).

Lumsdaine also points out that conclusions of evaluative studies of single media instruments - such as those under discussion - apply only to those particular instruments. Generalization of the results to other instruments of the same medium should be given at most, the status of untested hypotheses.

In his review of audio-visual media (Lumsdaine, 1963), he calls for experiments investigating specific factors in the design characteristics of media:

These factors should define reproducible stimulus and response characteristics that can be implemented in future instructional materials and devices. In this way, we can obtain experimental data to support the validity of generalizations on which to base future design decisions about media. . . (Lumsdaine, 1963, p. 601).

He further suggests that the precision and applicability of such findings will be enhanced if the factors manipulated are theoretically-oriented variables rather than simply the gross physical characteristics of the media. In this study, the factors are: 1) the use of televised previews as advance organizers; 2) the application of modeling theory to a preview of affective content; and 3) the link made between

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the affective and cognitive domains in the production of the "composite" preview.

Recent developments in educational television research show attempts to sub-divide production variables into more manageable research categories (Coldevin, 1976). The preview strategies used in the present study fall into the realm of content/subject matter organization.

B. The Use of Introductory Materials

In general terms, the televised preview to "Mosaic City" was an introductory segment which aimed to increase learning from the program. It attempted to achieve that aim by applying the design of the preview's principles referred to in research on such introductory material. The comparisons being made dealt first with the use versus the non-use of the preview segments, and second, with their content - affective, cognitive, or both. May and Lumsdaine (1958) stress the role of introductory presentations in directing the attention of students to the most salient aspects of an instructional presentation.

The reason for adopting the neutral term "introductory material" is the lack of agreement concerning both theoretical definitions and concrete examples of "advance organizers" and "previews". Since the approach to constructing the previews under consideration was eclectic, it will be useful to look at various interpretations of these concepts.

Ausubel and "Advance Organizers" - Much of the theoretical background on introductory presentations comes from David Ausubel. He has carried out studies determining the value of

preparatory learning experiences which facilitate subsequent learning from instructional presentations. Since Ausubel sees this type of introduction largely as an experience which helps organize the content to be presented, the term "advance organizer" has been coined. He describes the purpose of an advance organizer as that of relating potentially meaningful materials to be learned to the learner's existing cognitive structure (Ausubel, 1963). His theory is based on experiments comparing the effects of using advance organizers to introduce unfamiliar learning material with the effects of using a non-organizing introduction. Ausubel and Fitzgerald's (1962) study investigated the effects of employing advance organizers to facilitate the learning of unfamiliar material by 143 college students with poor verbal ability. The organizer used was a five-hundred word introductory passage to a longer, more detailed passage dealing with endocrinology. The subjects were divided randomly among the treatment and control groups. The treatment was administered twice, with a two-day interval, and tested two days later.

Comparison of the means of the experimental and control groups showed that the organizer facilitated the learning and retention of the passage (with a statistical significance of .07) for students who had scored low in the School and College Ability Test, which reflects verbal ability. Differences among high SCAT scorers were negligible.

Ausubel's explanation of the above results is that subjects of average or better verbal ability are more capable of spontaneously organizing new learning material without

the need of advance organizers as introductions.

It must be remembered here that Ausubel is generalizing about how organizers aid in the assimilation of written material. This content is still fairly removed from the cognitive and affective domains of second language learning. Nevertheless, the conceptualizations Ausubel offers on this subject are valuable to note when considering the use of organizers to promote learning from any medium.

Ausubel's theory considers the learner's existing cognitive structure to be the most important factor in determining the influence of an advance organizer on learning. Since his view of learning deals with the integration of new knowledge into the learner's cognitive structure in a progressive, hierarchical fashion, knowledge in an organizer is superordinate to subordinate concepts and specific facts presented in subsequent new knowledge (Ausubel, 1963).

Thus, for Ausubel, an advance organizer is simply one form of prior knowledge of a given subject matter, an experience that is designed to be integrated by the learner for that purpose. The extent to which the learner, with his or her individual cognitive structure needs and uses that experience, will largely determine the influence of the designed organizer on learning of subsequently presented material. When a learner's cognitive structure has already integrated the experience contained in an advance organizer through some other means, then there is no noticeable change due to the inclusion of that introductory segment.

This last point has important implications for the eval-

uation of preview segment. When inclusion of a preview segment does not appear to positively influence student performance, this lack of difference may be more indicative of the state of the learner's cognitive structures at the time of treatment than of the quality of the preview segment used.

Characteristics of Preview Segments - Hovland, Lumsdaine, and Sheffield (1949) found in an experiment with military personnel that merely announcing a test of some sort had a general motivating function. Post-test scores were higher for the forewarned subjects.

Michael and Maccoby (Lumsdaine, 1961) though, were unable to reproduce this effect with a group of high school students. In his review of the Michael and Maccoby study, Lumsdaine (1963) explains their conclusions by saying that the students tested were already maximally motivated at the time treatment was administered. In effect, he applies the reasoning of Ausubel, as previously cited, when he describes the cause of the experimental results as the learners' entering capabilities rather than the instructional treatment.

Maccoby, Michael, and Levine (Lumsdaine, 1961) carried out another study with military personnel in which a test was announced before a film showing. No significant difference in test scores was found between groups.

In the present study, the preview segment sought to provide viewer motivation by announcing a test period. In this case, learners were told they would be asked questions about what they had learned - the word "test" was not used.

Following May and Lumsdaine's suggestions (1958), the

present study incorporated questions into the preview segments to direct viewer attention to the key situations containing cognitive or affective content in the program. Lumsdaine has called them "motivating questions". Indeed, they motivate the learner to pay attention by establishing learning objectives. Gagné has specified the presentation of objectives as one of the major elements of effective instruction (Gagné, 1974).

O'Meara (1975) investigated the effect of providing learning objectives to college students about to view an instructional videotape. He found that students who were given the objectives and guides performed significantly better ($p < .01$) on a written post-test than students not provided with these aids. An interesting addition to the experiment was administration of a questionnaire designed to measure student attitudes to viewing tapes with objectives and guides. The majority of students were in favour of the idea.

Studies of the Effectiveness of Advance Organizers* - Barnes and Clawson (1975) have analyzed thirty-two studies dealing with the effects of advance organizers and found only twelve which reported (with statistical significance) that advance organizers facilitated learning. They found no clear patterns regarding the facilitative effects of advance organizers when separately analyzing the variables - length of study, ability level of subjects, grade level, type of organizer, and cognitive level of the learning tasks.

They concluded that advance organizers, as constructed in the studies analyzed, do not facilitate learning. They

*N.B. The term "advance organizer" is being used in this section because the researchers concerned were debating the use of introductory presentations in the Ausubelian sense of the word.

added, however, that non-significant results in certain studies indicated possible "practical" differences, pointing to a need for continued research in the field. They called for studies investigating the long-term effects of operationally-defined advance organizers in a variety of subject matter areas, at all age and grade levels.

In a reply to Barnes and Clawson, two other researchers (Lawton and Wanska, 1977) defend Ausubel's theory. They suggest that the former two have misinterpreted the nature of the advance organizer, taking it to mean a mere intermediary step between the existing cognitive structure and the new learning materials. They further criticize the reviewing method used in analyzing the studies on the effects of advance organizers. It is unfair to compare studies which have only a single variable in common, they say -

For example, although a group of studies may be 'similar' in terms of utilizing a written organizer, they may be very diversified in terms of subjects' age or ability level, length of treatment, or subject matter taught. Nevertheless, the authors treat them as comparable studies (Lawton & Wanska, 1977, p. 236).

They further question the credibility of the Barnes and Clawson review by criticizing their definition of "study". Their definition includes sub-studies within a single published work, while implying that the studies are independent. For example, while eighteen studies are concerned with subjects' ability levels, only nine published works touch the subject.

We can conclude from this debate therefore, that Barnes and Clawson have not had the final word on the subject of advance organizers. Controversy over the value of producing introductory materials continues and the problem of how

to define and design them remains confusing.

The rationale for the design of the introductory materials tested out in the present study comes from a consideration of the research done on such materials. An eclectic approach permitted the incorporation of motivating questions, announcement of a test, "clues" as to the content of the actual instructional presentation, and a statement of instructional objectives. While the introductory materials may, in their content, have contained elements not normally implied by the term "advance organizer" in the Ausubelian sense, they were intended to help the learner organize the subsequent learning experience. Thus, while we refer to the televised previews as "previews", "preview segments", or "introductory segments", the preview which did not contain the four elements mentioned above (and which was produced in order to assess the effects of the program alone) is still termed a "non-organizing preview".

C. Cognitive and Affective Content

The division of the previews according to their cognitive or affective content brings us to a brief consideration of the meaning of these terms.

In the Taxonomy of Educational Objectives, Bloom gives a description of the cognitive domain which is appropriate to the vocabulary learning dealt with in this study -

The cognitive domain . . . includes those objectives which deal with the recall or recognition of knowledge and the development of intellectual abilities and skills (Bloom, 1956, p. 7).

The other learning theorists cited here deal with the term "cognitive" in different ways. The common factor seems

to be a concern with structure and organization of experiences. Piaget states that people pass through biologically-determined cognitive stages. In a series of four stages, the child resolves states of cognitive imbalance by modifying his or her cognitive structure. The children tested in this experiment were in Piaget's (1971) concrete operations state, where logical thought begins to develop.

Bruner (1968) also delineates cognitive stages. These are concerned with the ability to manipulate symbols - the crucial skills of language development. He sees learning largely as a re-organization of previously learned material.

Gagné's learning hierarchy (Gagné, 1970) refers to a pyramid of sub-skills, moving from the simple to the most complex intellectual skills, with few developmental considerations.

Bloom's taxonomy of educational objectives (1956) gives more equal attention to cognitive, affective, and psychomotor domains. While less precise than Gagné's hierarchy, his taxonomy retains the cumulative character of a hierarchy. For Bloom, the affective domain "includes those objectives which describe changes in interest, attitudes, and values and the development of appreciations and adequate adjustment" (Bloom, 1956, p. 7).

Since the present study deals with the modification of attitudes toward a given subject matter area, it is appropriate to mention Bloom's position on attitude change, before considering the specific realm of language learning. He states that the extent to which attitudes are modifiable depends on how they are acquired, and how they relate to the self. The more closely they are linked with self-perception and self-

evaluation, the more resistant they are to change (Bloom, 1964).

D. Attitudes and Language Learning

The affective domain of language learning includes the learner's awareness of the second language as the expression of another culture. Bloom, Hastings, and Madaus (1971) have identified affective objectives for second language instruction as the following: 1) the encouragement of tolerance of differences in customs and values; 2) the development of sensitivity to the need for cross-cultural understanding; and 3) the identification of second language learning as contributing to the fulfillment of those goals.

This view holds that the affective domain in language learning - as in all learning - is integrally bound up with the cognitive realm. If second language learning (a cognitive goal) is fulfilling affective needs (those outlined in the paragraph above), the linking construct must be learner motivation.

Lambert and Gardner (1959) have shown the importance of motivation in numerous studies dealing with the social psychology of second language learning. Most of their research has been conducted in the Montreal area, and hence, is highly applicable to the present study.

Their major concerns have been how learners' attitudes towards other linguistic groups and their reasons for studying the second language affect their achievement in second language acquisition.

In their study, Gardner and Lambert (1959) found an important relationship between students' reasons for studying

French and their achievement in learning French. The highest achievement scores were found in students who, in addition to scoring high on linguistic aptitude measures, chose as their reason to learn French: "helpful in understanding the French-Canadian people and their way of life... (and)... permits meeting and conversing with more and varied people" (p. 270).

In the experiment, forty-three male and thirty-two female high school students were rated by their French instructors on oral skills and aural comprehension. Ratings were made on a five-point scale, and then combined to yield an over-all achievement rating - the first variable in the study. Several other measures of verbal intelligence and linguistic aptitude were administered. These scores were correlated with attitudinal and motivational measures: 1) an orientation index, in which students ranked their reasons for studying French in terms of personal relevance; 2) a seven-point attitude scale, measuring attitudes towards French-Canadians; and 3) a motivation-intensity scale, dealing with motivation to study the second language.

Analysis of the intercorrelations of these tests showed a significantly positive correlation of .34 between the orientation index and achievement in French. This indicated to Lambert and Gardner that students who were "integratively oriented" (i.e. who gave the above-mentioned reason) were generally more successful in acquiring French than those who were "instrumentally oriented" (i.e. who

wanted to acquire the language in order to have a better job or to become "better-educated").

In addition, Lambert (1963) studied students' parents and found that parents' attitudes toward the language were more influential than the parents' actual skill in French. These data support that orientation toward the other group is developed within the family, and that attitudinal dispositions toward language-learning are family-wide.

The acquisition of French skills, whose development depends on the active use of the language in communicational settings, was determined solely by measures of an integrative motivation to learn French. Further evidence indicated that this integrative motive was the converse of an authoritarian ideological syndrome, opening the possibility that basic personality dispositions may be involved in language learning efficiency. (Lambert, 1963, p. 118)

Similar results were found in studies conducted in Louisiana, Maine, and Connecticut, thus increasing the generalizability of the following conclusion:

Appropriate attitudinal orientation toward the other language group coupled with a determined motivation to learn the language is one of the two independent factors underlying the successful acquisition of a second language. The other factor is linguistic aptitude, a cognitive function.
(Lambert, 1963)

The design used in the present experiment divided the affective and cognitive domains of the televised pre-views and tested their effects when used separately and in combination. The intention in doing this was to support the conclusions of Gardner, Lambert, and Bloom by developing instruction for both cognitive and affective aspects of the subject matter.

E. Applying Modeling Theory

The affective element of language learning in both the program and its previews had its theoretical roots in modeling theory.

In Psychological Modeling: Conflicting Theories, Albert Bandura (1971) explains that the term "modeling" was adopted to describe phenomena which had previously been studied under the labels "imitation" and "identification". The term was intended to encompass broader psychological effects than the simple response mimicry implied by the term "imitation". "Identification", according to Bandura, was too diffuse a construct to aid scientific inquiry.

Bandura's terminology allows us to consider learning as a repetition of classes of behaviour, performed by models rather than simply specific behaviours. For this reason, it is possible to argue that verbal behaviour and behaviour expressing attitudes can be acquired through exposure to the appropriate models.

Several modeling effects can be delineated:

1. Observational learning effects refer to the imitation of a model's responses, when these responses are new to the observer's behaviour repertoire. An example might be pronunciation of a French word which had been previously unfamiliar.

2. Inhibitory effects of modeling discourage an observer from performing the response or class of behaviour performed by the model through demonstration of adverse consequences.

3. Disinhibitory effects are evident when observers increase performance of formerly inhibited behaviour after observing models engage in threatening or prohibited activities without adverse consequences.

4. Another modeling effect - response facilitation - occurs when a model's behaviour provides cues which facilitate performance of existing responses in the same general class. An example might be expressing the desire to learn a second language.

Consequences of a model's behaviour to the model have been recognized by Bandura and others as extremely important in the acquisition or rejection of the model's behaviour by the observer. The observer will either avoid or seek to perform acts in that same behaviour class, depending upon whether the behaviour is perceived as rewarding or punishing (Leifer and Roberts, 1972). This point of view coincides with the most behaviouristic views of learning, which see the expected consequences of an act as the most significant factor influencing repetition of that behaviour by the learner (Hilgard and Bower, 1966).

How is modeling theory applicable to the design of television programs? Liebert and Neal (1973) suggest that children adopt behavioural responses of filmed and televised models, and that they can experience vicariously the consequences to the model.

For example, numerous studies have concluded that exposure to violence on film or television could lead to increased violence in interpersonal relations (Bandura and

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Walters, 1963, 1972; Applefield, Smith, and Steuer, 1972; Leifer and Roberts, 1972). The problem, however, is that many of these studies were geared to an artificially-controlled laboratory situation, and so their results were not generalizable to everyday situations. For example, the effects of exposing children to short sequences of ten to thirty minutes viewing may differ from the effects of longer viewing periods or daily viewing.

Grant Noble has criticized research on the effect of televised violence on children for this lack of generalizability. He also has pointed out that, while children are quite likely to imitate television heroes, this does not only apply to those exhibiting violently aggressive behaviour. Reporters and paramedics, who lead exciting lives without inflicting pain on others, may be just as attractive models (Noble, 1975).

In recent years, research has focused more on the potential of "pro-social" models for the teaching of "pro-social" responses. We must be wary in defining "pro-social" since each experiment has chosen specific situations and characters to promote pro-social modeling, and has defined the behavioural outcomes in its own concrete terms.

Stein, Friedrich, and Vondracek (1972) defined pro-social behaviour in an experiment with nursery school children as rule obedience, tolerance of delay, and persistence. They found that randomly chosen subjects exposed to pro-social programming showed more of these qualities during free-play periods than subjects exposed to aggressive programming.

The validity of this type of experiment is largely dependent upon instrumentation procedures. The method of identifying, quantifying, and recording pro-social responses influences the conclusions. While it may be easier to categorize such responses according to clear physical and verbal manifestations in free play, the actual manifestations may be so subtle as to be barely measurable - i.e. tone of voice, body stance, and facial expression.

The Children's Television Workshop has developed affective objectives in the belief that exposure to pro-social models can encourage co-operative behaviour among young children. Paulson (1972, 1974) developed both picture-recognition tests and situational tests of co-operative behaviour, as it was defined for the program. He was able to confirm that children will recognize a co-operative solution and value it over a non-co-operative one as a result of exposure to Sesame Street co-operative program inserts. In the inserts, a model (or models) arrives at a co-operative solution to a conflict. However, Paulson did not obtain evidence that viewers co-operated more than non-viewers in substantially different situations than the ones portrayed in the inserts.

Goldberg, Gorn, and Kanungo (1976) have investigated how Sesame Street North has been accomplishing its bi-cultural/multi-cultural goals. They have developed tests to measure the attitude of the child-viewer to the television models presented in the program's bi-cultural and multi-cultural segments. After viewing inserts depicting French-Canadian,

Indian, and Oriental peer-models in a variety of situations, subjects were shown pictures of the models next to pictures of previously unseen white children. They were asked in individual interviews which child they would prefer as a playmate. A statistically significant number showed marked preferences for the non-white and French-Canadian models. The results of the study show neither long-term effects of exposure to a program, nor how these effects transfer to unfamiliar members of other ethnic groups. However, they do suggest that attitudes toward other ethnic groups - at least as they appear in the media - may be affected by a media presentation.

Situational tests of affective responses were not feasible for the time and conditions available for this study, which will be discussed in the "Procedures" and "Discussion" sections. Problems of instrumentation will also be covered in these sections.

Bryan (1971) found that first and second-grade boys, who observed a model express pleasure immediately after making a donation to a social service, donated more money themselves to that cause than boys who observed a model not immediately expressing positive affect. This conclusion provides a theoretical base for the teaching of affective content in "Mosaic City". In the program, the English-speaking puppet is seen experiencing the pleasure of having the French-speaking puppet offer to be her friend immediately after helping that francophone puppet by using the French vocabulary she had learned a few

minutes before. The viewer could be expected to model the anglophone puppet's pro-social behaviour in order to experience a similar kind of reward.

This then brings us to the question of the identity of the model. Rosekrans (1967) found that children modeled the behaviour of persons more readily when the models were similar to themselves in one or more characteristics. Coates and Hartup (1969) also argue the importance of the perceived similarity of the model to the observer.

A seemingly contradictory conclusion comes from the abundance of social-psychological research on learning from models who are high in prestige, power, intelligence, and competence - qualities often associated with adults. In terms of differential reinforcement, this type of model often shows greater influence over the environment, and thus offers the observer greater vicarious reward than the lower status model, in such forms as: material gain, respect, or obedience from others. For example, in commercials, a popular television personality may sell breakfast cereal more effectively than an anonymous adult (Bandura, 1971).

Where do the two puppets appearing in "Mosaic City" fit into our discussion of models? They are intended to act as peer models insofar as they represent levels of mastery of the French language. One puppet has the same baseline vocabulary level as the viewers and acquires new vocabulary along with them. The other is a francophone, who represents a member of the "other" ethnic group, with whom the anglophone puppet eventually establishes a friendly relationship.

Puppets were used for both practical and theoretical reasons. It was not possible to obtain the participation of qualified child actors for the television production. The tradition of puppet theatre, which has never left Europe, has been revived in North America through television. Children familiar with Sesame Street have become used to regarding puppets - temporarily, at least - as characters with feelings. Both cognitive and affective measures of the effects of communications made by puppets on Sesame Street have shown that they can, in fact, transmit information, and even evoke emotions in children (Palmer, 1974).

Research suggests that exposure to a variety of symbolic models will promote more modeling than exposure to a single symbolic model. One study (Bandura, 1971) dealt with children exhibiting phobic avoidance of dogs.* Those subjects who viewed a film showing several models interact with dogs (with progressively more approach behaviour) showed more approach behaviour toward dogs than subjects who viewed a film where only one model and one dog were shown. Bandura concluded that multiple-model treatment is more successful due to the greater availability of stimuli for stimulus generalization effects.

This point may also be interpreted as increased exposure to the subject matter dealt with by the models.

*Although learning to approach dogs initially may not seem to relate to the concerns of this study, the affective domain of language learning does encompass the desire to "approach" members of other ethnic and linguistic groups. Some members' unwillingness to do this extends to "phobic avoidance".

In fact, it could well amount to the "spaced repetition" described by Edwards (1974) as the optimal type of repetition in instructional communications. She compared the effects of spaced and massed repetition in an educational television program.

It seems that more of a learner's capabilities are stimulated with spaced repetitions - not only is the instructional communication stored, but the learner is given time to code information, to organize, to internalize. (Edwards, 1974, p. 40)

Spaced repetition permits increased covert practice between repetitions for coding and retrieval, a longer time for the memory trace of information to be in storage, and increased mediation between repetitions so that the changes brought about by learning may be integrated (Edwards, 1974).

Edwards' remarks concerning learning from television are supported by learning theorists (Hayman and Johnson, 1963; Reynolds and Glaser, 1964; Ausubel, 1968). Reynolds and Glaser also point out that there exists a ceiling level after which repetition no longer results in learning increments, but is replaced by a law of diminishing returns. This may be explained by fatigue, boredom, or the fact that there is simply less to learn after each repetition. The results of this study will draw upon this argument.

It may be that a given class of behaviour may be encouraged more effectively if a variety of modeling approaches are taken. If peer models, high prestige models, and a variety of modeling situations are presented, chances that modeling will occur.

This eclectic approach was used in "Mosaic City",

whereby peer-puppet models, peer-child models, and both realistic (reporter) and exotic (magician and palm-reader) models appeared. The limitation placed on the experiment, of course, is that it is not possible to attribute scores in attitude or information to the identities of any particular model.

F. Modeling and Language Learning

Children acquire language through exposure to linguistic stimuli. The more enriched the social environment is by these stimuli, the greater are a person's chances of acquiring another language. Television programs may provide stimuli lacking in a child's immediate environment (Hamré, 1972). They do so by providing models of correct verbal behaviour.

Mowrer's theory of language learning supports modeling theory. It holds that the sounds of words become reinforcing agents through their association with users of those words who are regarded with affection by the learner. Thus, the learner is motivated to produce the words by a desire to be like valued people in his/her environment (Mowrer, 1960).

This view supports B. F. Skinner's interpretation of verbal behaviour (Skinner, 1957), which sees language as a behaviour acquired through differential reinforcement of the emission of various sounds (operants) by the learner. However, Mowrer believes that the learner begins by seeking to imitate the most significant people around him/her, while Skinner places emphasis on the consequences of correct

verbal behaviour. The identity of those who provide the reinforcement is secondary.

Mowrer's explanation is more relevant to this study, as it takes into account learner motivation. Lambert concluded from Mowrer's theory that

...a successful learner has to identify with the language users to the extent that he wants to be like them linguistically, and undoubtedly in many other ways. (Lambert, 1963, p. 115)

Lambert's conclusion seems inherently reasonable. It provides an affective basis for verbal imitation. It is the rationale for designing a program teaching language with behaviour models which encourage identification. They thus promote acquisition of both language and accompanying positive attitudes towards it.

McLaughlin (1977), in a review of the literature on second-language learning in children, identifies two types of bilingualism: compound and co-ordinate. When a child learns two languages in the home, and comes to use them interchangeably with the same people in the same situation, bilingualism is said to be compound. When the child learns to use the two languages independently in different situations and as expressions of different cultures, the bilingual skill is called co-ordinate. Here, the languages are rarely interchanged by the same persons.

Since children in Montreal may acquire either brand of bilingualism, it seemed reasonable to introduce the use of French (in Montreal) by showing the interchange of the two languages in a relaxed, even humorous way.

The theoretical and empirical foundations of this study

have touched on research into instructional media, introductory materials, cognitive and affective functioning, modeling, and second language learning.

HYPOTHESES

In formulating the expected outcomes of this investigation, it is necessary to express these outcomes first in theoretical terms and second, in operational terms. Each theoretical hypothesis will be followed by theoretical definitions of some of the terms being used.

First Hypothesis

The first hypothesis was formulated to establish that the educational television program by itself was capable of increasing viewers' knowledge of French, and information related to the plot, as well as influencing their attitudes.

Theoretical hypothesis: Subjects who watch an educational television program will: a) learn more French vocabulary, b) learn more information related to the program's affective content, and c) show more positive attitudes toward learning and speaking French and making cross-cultural contacts than subjects exposed to an irrelevant program.

Theoretical definitions:

Educational television program - a television program which is designed with the specific objectives of providing information, teaching skills, or changing attitudes.

Learning - a process of long-term modification in behaviour, beliefs, or attitudes resulting from interaction.

with the external environment.

Attitude - an enduring disposition which indicates response consistency, positive or negative affect toward a social or psychological object.

Cross-cultural contacts - voluntary verbal communication with members of ethnic groups other than one's own.

Rationale for first theoretical hypothesis: As mentioned in the review of related research, it has been shown that television can be an effective medium of instruction for a variety of content areas. In the domain of language skills, it shows considerable potential for exposing the viewer to a new language in a realistic context. Evaluations of specific programs such as Carrascalendas and Sesame Street suggest that it may be particularly appropriate to promoting positive attitudes towards ethnic and linguistic differences. It is reasonable to assume that a program designed to achieve specific objectives can, in fact, lead to gains in vocabulary and information while promoting positive attitudes towards the subject matter.

First operational hypothesis: Grade five children who watch the program "Mosaic City", will: a) score higher on a vocabulary recognition test; b) score higher on a multiple-choice test of information related to the program's affective objectives; and c) score higher on both a true-false questionnaire and scaled-response item designed to measure positive attitudes towards learning French and making cross-cultural contact than subjects exposed to an irrelevant program, "The Greek Myths".

Operational definitions:

Grade five children - fifth-grade children drawn randomly from each of two English-speaking schools in Montreal.

"Mosaic City" - a $\frac{1}{2}$ hour, black and white video-taped program produced at Concordia University, Studio A, in co-operation with the class of Educational Technology 684, instructor L. Weinstein, and technical advisor P. Vinet.

Vocabulary recognition test - given an audio tape containing the 17 French words and expressions presented in the program, and a corresponding series of multiple choice items containing English words and expressions in print form, the subject will choose the English word or expression which most closely defines the French vocabulary heard.

Multiple-choice test of information related to the program's affective objectives - a test which offers four alternative answers to questions related to the feelings and behaviour of characters in the program or which otherwise pertain to attitudes towards learning and speaking French and making cross-cultural contacts.

True-false questionnaire - a questionnaire asking subjects to decide the truth or falsehood of statements relating to the feelings and behaviour of characters in the program and of more general statements pertaining to attitudes towards learning and speaking French and making cross-cultural contacts.

Scaled response item - an item which asks subjects to rate their desire to speak French with francophones on a

scale ranging from: (1) No, not at all, to (5) Yes, a lot.

The second, third, and fourth hypotheses compare the effectiveness of three approaches to producing preview segments for such an instructional program. The effects of each of the previews are compared with the effects of the program introduced by a segment not acting as an advance organizer, which will be termed a non-organizing preview. They will also be compared with the effects of an irrelevant program.

Second Hypothesis

The second hypothesis examined the effect of presenting models of desirable attitudes and behaviour during an "affective preview" segment.

Theoretical hypothesis: Subjects who watch an educational television program introduced by a video-taped segment which previews the program's affective content by presenting the models of positive attitudes towards learning and speaking French and making cross-cultural contacts will: a) express more positive attitudes toward learning and speaking French and making cross-cultural contacts, and b) learn more information related to the affective content than subjects viewing an irrelevant program, a program introduced by a cognitive preview or a program introduced by a non-organizing preview. They will also, c) learn more French vocabulary than subjects who see an irrelevant program or the same program introduced by the non-organizing preview. (Although part c refers to a cognitive skill, the affective preview was expected to increase motivation to learn vocabulary. The gains were expected to surpass only those of the non-organizing preview group.)

Theoretical definitions:

Affective content - content pertaining to feelings, attitudes, values, morals, and character.

Models - persons whose behaviour or class of behaviour is imitated or rejected by an observer as a result of identification of the observer with the model.

Rationale for theoretical hypothesis: Literature on modeling suggests that television viewers do acquire new behaviours from observing behaviour models. Since behaviours are often expressions of attitudes, it was felt that attitudes could be influenced by behaviour models. The "affective preview" then, was seen as an advance organizer for the modeling effects of the program.

Second operational hypothesis: Grade five children who watch the program "Mosaic City", introduced by a video-taped preview segment which: 1) presents the characters who will express through words and actions the desire to learn and speak French and make contacts with persons from other ethnic backgrounds; 2) provides orienting questions about these characters; and 3) announces a question period to be given at the end of the program will a) score higher on a vocabulary recognition test; b) score higher on a multiple-choice test of information related to the program's affective objectives; and c) score higher on both a true-false questionnaire and scaled response item designed to measure positive attitudes towards learning French and making cross-cultural contacts than subjects who watch an irrelevant program, a program introduced by a cognitive preview, or a.

program introduced by a non-organizing preview.

Operational definitions:

Characters - the child, adult, and puppet personalities in the program.

Words and actions - the dialogue, tone of voice and manner of the characters which communicate their attitudes.

Orienting questions - questions which pertain to the behaviour and feelings of the characters. (See Appendix, Script of Previews, p. 101.).

Announces a question period - an unseen narrator states that after the program, viewers will be asked questions to see how much they have learned. (See Appendix, Script of Previews, p. 101.)

Third Hypothesis

This hypothesis deals with the "cognitive preview" segment.

Theoretical Hypothesis: Subjects who watch an educational television program introduced by a video-taped segment which previews the vocabulary being taught in the program will learn more French vocabulary from the program than subjects who watch a different program, or a program introduced by affective or non-organizing previews.

Rationale for theoretical hypothesis: Literature on advance organizers suggests that previews to television programs may be effective promoters of cognitive learning. This particular preview provided the objective of learning a certain body of vocabulary. Knowledge of the objective was expected to improve recall of the vocabulary.

Operational hypothesis: Grade five children who watch the program "Mosaic City", introduced by a video-taped preview segment which: 1) shows images connected with words to be learned; 2) shows brief program clips containing expressions to be learned; 3) asks the viewers to watch and listen for the meaning of those words and expressions during the program; and 4) announces a question period at the end of the program, will score higher on a vocabulary recognition test than children who watch an irrelevant program, a program introduced by an affective preview, or a program introduced by a non-organizing preview.

Operational definitions:

Images connected with words to be learned - slides which appear in the program itself, but which, in the preview, are not accompanied by the audio track. Viewers are asked to discover the French words through watching the program.

Program clips - a string of scenes from the program, each lasting just a few seconds, in which the French expressions to be learned are used.

Fourth Hypothesis

This hypothesis deals with the composite preview - one which combines the affective and cognitive previews in a single video-taped segment.

Theoretical hypothesis: Subjects who watch an educational television program introduced by a video-taped segment which previews both the program's affective and cognitive content will: a) learn more French vocabulary; b) express more positive attitudes toward learning and

speaking French and making cross-cultural contacts; and c) learn more information related to the program's affective content than subjects who watch an irrelevant program or programs introduced by cognitive, affective, or non-organizing previews.

Rationale for theoretical hypothesis: It was expected that the interaction of the cognitive and affective preview techniques, as described in the fourth hypothesis, would result in higher gains than either of the single previews. Longer exposure to the behaviour models was thought to have positive consequences for both affective and cognitive learning.

Operational hypothesis: Children who watch the program "Mosaic City", introduced by a video-taped preview segment which contains the "affective preview" followed by the "cognitive preview" will: a) score higher on a vocabulary recognition test; b) score higher on a multiple-choice test of information related to the program's affective objectives; and c) score higher on both a true-false questionnaire and a scaled response item designed to measure positive attitudes toward learning French and making cross-cultural contacts than subjects who watch programs introduced by cognitive, affective, or non-organizing preview segments, or a different program, not designed for those objectives.

Overall Prediction

Because of the results of previous research pointing to the value of previewing techniques, the power of modeling

effects and the role of the affective domain in language learning, it was expected that the composite preview, reflecting the program's affective and cognitive objectives, would lead to the highest cognitive and affective gains from the program "Mosaic City".

CHAPTER II

PROCEDURE

DESIGN OF THE EDUCATIONAL TELEVISION PROGRAM

The half-hour, black and white program, "Mosaic City", was designed in November and December of 1976, and produced in the Concordia University studio on January 26, 1977 in co-operation with another student in the Graduate Program in Educational Technology, David Stoloff. Technical assistance came from students within the Program. Leonard Weinstein, a CBC producer and television instructor for the Program gave technical advice along with Paul Vinet, Studio Officer.

The major aim of "Mosaic City" was to interweave the cognitive and affective aspects of French language learning in a context specific to the Montreal environment. A secondary aim was the inclusion of a multi-cultural component, so that acceptance of the other main language and culture of Canada by anglophone children would be a reflection of acceptance of cultural and linguistic differences in general. This second aim was reflected in the choice of immigrant children for the discussions of language problems contained in one segment of the program.

The program was committed to showing bilingualism in action, and thus allowed English and French to be used side by side in conversations. While this approach is generally discouraged in audio-visual language methods because of its tendency to encourage translation in the

viewer's mind, it is a valid way of portraying the social reality of Montreal, where French and English are often heard together in a single conversation. Representing bilingual people using both languages competently and comfortably was considered the priority.

The Story Line

A reporter visits the salon of a bilingual palm-reader and mind-reader. They convince her of their powers by reading her thoughts and showing her an interview she had conducted with children in a school. They allow her to watch the adventures of her friend Imogene in a crystal ball that resembles a television monitor. Imogene meets up with a lost French-speaking dog, but is unable to communicate with him. The reporter, palm-reader and mind-reader reach Imogene telepathically, and teach her enough French so that she is able to help Charles. Imogene and Charles strike up a friendship. All sing the "Mosaic City" song. (The script is reproduced in the Appendix, p. 89.)

The program's content was largely built around behaviour models. Represented in the program were bilingual adult and peer models, a unilingual English-speaking model, and a unilingual French-speaking model. More detailed descriptions follow.

The Bilingual Models

Adults - 1. A female reporter, who is seen interacting with the other bilingual models and the unilingual English-speaking model. She shows competence in both languages and has warm and enjoyable

interactions with the other characters.

2. A male mind-reader who guesses the reporter's thoughts in both languages. He demonstrates pride in this talent by constantly switching languages.
3. A female palm-reader, equally gifted, with a more enigmatic personality. In the reporter's palm, she "reads" an interview with immigrant and bilingual children.

Peers. - Grade Five children from an inner-city, English-speaking elementary school. Two are bilingual French-Canadians and the other four are immigrants who speak English and some French.

The Unilingual Models

The unilingual models are portrayed by hand-puppets. Their personalities are child-like. Their speech is a trifle slower than normal to allow for comprehension of new vocabulary.

Imogene - This bird-puppet, a friend of the reporter, is beginning to learn French, and expresses enthusiasm about that fact from the beginning. She is eager to make friends and help others, as is evidenced by her efforts to help the lost dog Charles find his way to the metro.

Charles - The dog-puppet first expresses worry and frustration at being lost and unable to communicate with Imogene. Once Imogene is able to speak with him, he becomes friendly and actively seeks her friendship, using the English word "friend".

Expected Modeling Effects

Children watching "Mosaic City" were expected to identify with the language problem of the unilingual puppet, Imogene. They were also expected to emulate the bilingual children interviewed at the school because of their linguistic mastery. These characters represented a positive attitude toward the learning of a second language.

The adult characters also acted as models, demonstrating a desirable power to the viewer as they showed their competency in both languages.

Vocabulary to be Taught

The vocabulary was presented by the models so that it could be understood either through the accompanying image or in the context of a bilingual conversation. The objective was to have the viewer understand the new word during the program and be able to recognize it in an aural comprehension test. Since the program was not interactive, it was not expected that a viewer would necessarily be able to pronounce the new words. (For a list of the French words introduced in the program, see Appendix, p. 112.)

The Program Previews

The program previews were designed as advance organizers of content to be learned from the program by providing the viewer with specific learning objectives.

The preview of cognitive content asked the viewer to find out the French words for a series of images that would be shown in the program and the English meanings of a series of French phrases. Thus, no vocabulary was presented in the preview - clues were merely provided.

The preview of affective content introduced the behaviour models mentioned above and asked the viewer to find out specific bits of information about them from the program. These pieces of information were key points in the program's affective content. These included references to Imogene's desire to learn French, how she helps Charles, how the immigrant and Canadian children co-operate, how Merlyn and Tabatha help Imogene, and the meaning of the word bilingual. The answer to each question incorporates some expressions of a positive attitude towards learning and speaking second languages and making cross-cultural contacts.

The composite preview combined the affective and cognitive previews in that order.

A fourth preview was created in order to assess the effects of a program without a program designed as an advance organizer. This preview consisted of a slide show of scenes around Montreal to the accompaniment of music from the program. This "non-organizing preview" did not provide any clues as to the specific content of the show.

All previews were introduced by the voice of the reporter, telling viewers that they would be asked questions on what they learned from the program. They concluded with the same voice, directing the viewer to listen to the program's theme song to find out why Montreal is "Mosaic City".

All viewing treatments lasted approximately three minutes. The cognitive and affective previews were supplemented with a portion of the non-organizing preview so that all previews would be of the same duration.

The Sample

One hundred thirty-seven fourth-grade boys and girls from two English-speaking elementary schools in Montreal were selected for the study. Sixty-six came from St. Gabriel's Elementary School in Pointe St. Charles, and seventy-one came from St. Patrick's Elementary School in the district of St. Louis.

A stratified random sample was taken at each school, on the basis of scores from a recently administered Stanford Achievement Test. The stratification helped to ensure that abilities to learn from the television program were, in fact, equally distributed throughout the experimental groups. Each group contained high, low, and medium scorers.

The Variables

The independent variable in the study was the type of previewing content used. Five levels were identifiable within this variable:

1. Preview of affective content (through behaviour models)
2. Preview of cognitive content
3. Composite preview of affective and cognitive content
4. Non-organizing preview
5. Irrelevant treatment, no preview segment.

The dependent variable included four types of written post-test scores:

1. Score on a multiple-choice translation test of vocabulary recognition skills
2. Score on a multiple-choice test of information acquisition related to the program's affective content

3. Score on a true-false questionnaire dealing with attitudes related to the program's affective content
4. Self-rating for a scaled-response item testing subjects' motivation to acquire French as a second language.

The Testing Design

A post-test control group design was used (Tuckman, 1972). It was felt that pre-testing should be avoided, so that subjects would not be oriented to the French vocabulary to be taught; this being the function of the previewing treatments. Because subjects were placed in the treatment and control groups in a random fashion, the control groups were considered representative of all the subjects' vocabulary, information, and attitude levels prior to treatment.

This design may be described symbolically in the following manner - where R designates randomization, O designates post-treatment measurements, P designates the educational television program "Mosaic City", X designates the irrelevant television treatment and the small letters a, c, and n refer to preview types:

1. R aP O₁ - affective content preview treatment
2. R cP O₂ - cognitive content preview treatment
3. R caP O₃ - composite preview treatment
4. R nP O₄ - non-organizing preview treatment
5. R X O₅ - control group

The design includes three preview treatment groups, one non-organizing preview group which acts as a control for the three preview groups, and a standard control group, which

allows the effects of the program without organizing previews to be assessed.

Administration of Treatment

Treatment was administered at the two schools on two separate days with the assistance of the co-producer of the television program. In each school, there was a special room equipped with a standard educational television monitor and cassette tape-recorder (for purposes of vocabulary testing). Children sat on chairs near the tables where they later wrote the post-test.

Subjects were removed from their classes by experimental group and brought to the viewing area. They were instructed in a friendly manner to watch the television program. It was explained that, although they would be tested, their scores would not influence their school marks. The television program and preview treatments were then shown to them.

Immediately afterwards, the subjects were instructed to seat themselves at nearby tables to take the test. Test booklets were given out. The vocabulary test was administered with the use of the cassette recorder. The other tests were administered; all questions were read aloud, so that reading difficulties would not interfere with comprehension of the test items. Test papers were collected and subjects were taken back to their classes.

The treatment and testing period lasted an average of one hour. With four preview treatments and one control group, this amounted to five hours of experimental procedure.

INSTRUMENTATION

Four measures of capability were devised. Reliability, difficulty, and discriminability levels were calculated for each, after administration of the tests. Certain test items were subsequently removed for final consideration of test results.

The Vocabulary Test

The vocabulary test was designed to test the subject's ability to recognize and comprehend French words taught in the television program. Subjects listened to an audio tape, on which each of seventeen French words, phrases or sentences were presented. For each item, the student individually chose one of four English equivalents, circling it on an answer sheet. It was felt that the audio tape would standardize the pronunciation and delivery of the French words, and thus help to overcome invalidity due to differing testing conditions. The voice on the tape had been heard in the program previews earlier.

After the item analysis, for which 0.5 was established as the lowest acceptable discrimination index, 0.3 the lowest acceptable difficulty index, and 0.75 the highest acceptable difficulty index, thirteen of the seventeen test items were retained. The final reliability coefficient determined through the Kuder-Richardson formula $K-R_{21}$ was .65. This is a moderately acceptable coefficient. Tuckman's approach to determining acceptable levels for these indices was followed, with a certain amount of flexibility, as he has suggested (Tuckman, 1972).

Content validity of the test was determined through consultations with the French-language specialist employed at one of the elementary schools.

The Information Test

A ten-item, multiple-choice test was designed to measure subjects' comprehension of the program content, especially the content touching on attitudes toward learning and speaking French and making cross-cultural contacts. For example, one question asks why Imogene likes learning French. This is stated in the program. After an item analysis, carried out using the same criteria as for the vocabulary test, all test items were retained. The Kuder-Richardson reliability coefficient was .68. Content validity was established along with the co-producer of the television program.

The Attitude Questionnaire

A twenty-item questionnaire dealing with attitudes toward learning French, speaking French, and making cross-cultural contacts, was designed using a true-false format (Tuckman, 1972). It was felt that this format, incorporating an ample number of distractor items and items which restated other items in a different form, would reap sufficient information about viewer attitudes concerning the affective content of the program. However, item reliability turned out to be low. The highest acceptable level of difficulty was established at .9 while the other criterion coefficients remained the same as for the vocabulary test. After item analysis, twelve items remained on the questionnaire. The

final Kuder-Richardson reliability coefficient was .88. Content validity was established in consultation with the co-producer in a discussion of how the test related to the program's affective objectives as stated previously. It was felt that the scriptwriters could best determine this.

This section of the post-tests measurements was the weakest, despite indications of the reliability coefficient. More variability would have been evident in the results had a five-point scale been used instead of true-false items. Despite the use of distractor items, the intent of the questionnaire may have been obvious to some subjects, influencing their responses.

The Scaled-Response Attitude Test Item

One test item measuring the major affective objective of the program was included. It was derived from a validated test used in a study of attitudes toward French (Genessee, 1977). Other questions on the test dealt with situations not necessarily within the experience of those who viewed "Mosaic City".

The Post-Test

In the Appendix (p. 103) is the post-test which subjects wrote immediately after viewing the programs. It is in its original form, since test validation was carried out after its administration. Items which were subsequently removed are indicated with asterisks (*). Those which were removed as a result of the item analyses are accompanied by a single asterisk (*), those which were removed because it was decided that they could not yield conclusive information related to

the hypotheses are accompanied by two asterisks (**). The latter reasons for eliminating items are explained in the "Items Eliminated" section.

Following the post-test is an answer key, showing the French vocabulary taught, and answers to the information test. The attitude questionnaire was scored by adding points corresponding to answers which indicated a positive attitude towards learning French, speaking French, or making cross-cultural contacts. Question #5 of Part 4 was included in the post-test measurements and data analysis. As a scaled response item, however, it was marked as a score out of five, corresponding to the five points on the scale.

Items Eliminated

These items were originally conceived to gain insight into the modeling effects of the program. Upon closer consideration and consultation with my thesis advisor, I realized that the viewers might well identify with other behaviours emitted by the program's characters than their friendly willingness to learn and speak French and make cross-cultural contacts. While the puppet Imogene represented the children's intellectual level and experience in French, she was still a puppet, and less like them than the adult characters. When it was a question of emulating the behaviour of the program characters (Who would you most like to be?), viewers might have been modeling characters only of their own sex. They might also have been aspiring to the jobs of magician, palm-reader and reporter rather than

that of bilingualism.

Thus, the items eliciting information about modeling effects were not considered sound enough to process with the post-test information.

Item 8

It was decided that, while watching television in French would most certainly influence subjects' reactions to a bilingual television show, watching television in English could be considered a normal part of the subjects' existences and did not need to be included in the data analysis.

Other Data

Other data was gathered during administration of the test - data dealing with the existence of French in the childrens' immediate environment and data recording their reactions to the television program.

The existence of French in the environment was divided into two areas of concern - one with the language spoken in the home, and the other with the degree of incoming French stimuli through the mass media and exposure to French-speaking playmates. Upon interpretation of the data, these factors were converted into two scores, one indicating use or non-use of French in the home, and the other indicating the sum of the ratings made on questions regarding incoming French stimuli. These latter scores were then converted into the categorical form of high, medium, and low exposure to French. The boundaries for each category were determined by dividing the highest possible score into three. Results will be shown in Tables 15 and 16.

Children were asked, through scaled-response items, to what extent they enjoyed the television program, which character in the program they felt most resembled them, and which character they would like to be. The final two questions - attempts at recording modeling behaviour - were eliminated even from this informal data analysis for reasons of content validity. It was realized that the children might well wish to resemble the three bilingual adults for reasons divorced from their language skills (magical powers, size, etc.)

The post-test in its original and revised form appears in the Appendix, p. 103.

CHAPTER III

RESULTS AND DISCUSSION

This chapter discusses the statistical methods used to evaluate each hypothesis, and the findings themselves. The results are interpreted with respect to each hypothesis.

THE NULL HYPOTHESIS

The purpose of the statistical procedures used in this study was to find a scientific basis for rejecting the null hypothesis in the case of each research problem being examined. The null form of the hypotheses discussed in the "Procedure" section is as follows:

Hypothesis One

Children who watch the educational television program "Mosaic City" will not score differently on tests measuring:
a) French vocabulary recognition skills, b) information acquisition, and c) attitudes towards learning and speaking French and making cross-cultural contacts from children who watch an irrelevant program, not specifically designed for these objectives.

Hypothesis Two

Children who watch "Mosaic City" introduced by a video-taped segment which previews the program's affective content by presenting the models of positive attitudes toward learning and speaking French and making cross-cultural contacts, will not score differently on tests measuring:
a) French vocabulary recognition skills, b) information

acquisition, and c) attitudes towards learning and speaking French and making cross-cultural contacts from children who watch an irrelevant program, or children who watch the program introduced by non-organizing or cognitive previews. They will not score differently on vocabulary recognition tests from children viewing the program introduced by a non-organizing preview or children viewing the irrelevant program.

Hypothesis Three

Children who watch "Mosaic City" introduced by a video-taped segment which previews the vocabulary being taught in the program will not score differently on tests measuring vocabulary recognition skills from children who watch an irrelevant program, or a program introduced by affective or non-organizing previews.

Hypothesis Four

Children who watch "Mosaic City" introduced by a video-taped segment which previews both the program's affective and cognitive content will not score differently on tests measuring: a) vocabulary recognition skills, b) information acquisition, or c) attitudes towards learning and speaking French and making cross-cultural contacts from children who watch an irrelevant program or a program introduced by affective, cognitive or non-organizing previews.

STATISTICAL METHODS USED TO TEST THE NULL HYPOTHESES

Raw data was analyzed through procedures available through the SPSS (Statistical Package for the Social Sciences)

sub-program ANOVA. Where significance fulfills the .05 level established, and, moreover, is significant at a more stringent level, the more stringent level will be noted. Scores on the four dependent variables were examined through a one-way analysis of variance. This yielded the means and standard deviations shown in Tables 1, 4, 7, and 10. It also showed the existence of differences among the experimental groups fulfilling the requirements for statistical significance in this study - the .05 level. Between and within-group variances are displayed in Tables 2, 5, 8, and 11.

Information about the pattern of effects when moderator data concerning prior exposure to French was incorporated into the design was obtained through a multiple classification analysis, requested through the ANOVA sub-program. Results are shown on Tables 13, 14, 15, 16, and 17.

Finally, two multiple range tests were requested through the SPSS sub-program ONEWAY, the Modified LSD Procedure and the Scheffé Procedure, which set statistical significance at the .1 level. These tests determined where the differences existed among the means of the treatment and control groups. Results are shown on Tables 3, 6, 9, and 12.

For easy identification of treatment groups, the groups have been named as follows on the tables:

- Group 1 saw the program plus affective content preview
- Group 2 saw the program plus cognitive content preview
- Group 3 saw the program plus composite (cognitive and

affective) preview

Group 4 saw the program plus non-organizing preview

Group 5 saw the irrelevant television program

Table 1

Vocabulary Scores for Five Groups
(Means and Standard Deviations)

Treatment Groups by Preview	N	Mean	Standard Deviation
1 (affective)	28	7.1	3.1
2 (cognitive)	28	9.1	3.0
3 (composite)	28	8.1	3.1
4 (non-organizing)	28	9.3	3.1
5 (control)	25	6.5	2.3

Table 1 shows that the highest mean vocabulary score was obtained by the group viewing the program introduced by a non-organizing preview, while the lowest mean score was obtained by the control group. (The maximum possible score on the test, after item analysis, was 13.)

The analysis of variance in Table 2 determines whether the differences among these means are significant at the level determined acceptable ($p < .05$).

Table 2

Vocabulary Test
Single Factor ANOVA on Five Means

Source	Sum of Squares	df	Mean Squares	F
Between groups	161.97	4	40.49	5.67*
Within groups	1145.56	132	8.68	
Total	1307.53	136		

*p < .01

The F-ratio of 5.67 indicates that differences among the means of the five groups probably were not due to chance. The Multiple Range Test revealed more specifically the differences among the groups. It divided the groups into subsets. The Scheffé Test established that both group 2 (cognitive) and group 4 (non-organizing) were significantly different from group 5 (control).

Table 3

Multiple Range Test

Subset 1

Group	5(control)	1(affective)	3(composite)
Mean	6.5	7.1	8.1

Subset 2

Group	1(affective)	3(composite)	2(cognitive)
Mean	7.1	8.1	9.1

Subset 3

Group	3(composite)	2(cognitive)	4(non-organizing)
	8.1	9.1	9.3

Scheffé Test - Minimum difference: 2.45

It may be concluded that there is no difference in vocabulary recognition skills among the groups which viewed the program, regardless of preview.

Table 4
Information Test Scores for Five Groups
(Means and Standard Deviations)

Treatment Groups by Preview	N	Mean	Standard Deviation
1 (affective)	28	7.1	1.8
2 (cognitive)	28	7.1	1.5
3 (composite)	28	6.6	3.1
4 (non-organizing)	28	6.2	3.1
5 (control)	25	3.9	2.0

Table 4 shows that the highest mean score on the information test relating to the program's affective content was obtained by the groups viewing the program introduced by cognitive or affective previews while the lowest mean score was obtained by the control group.

Table 5 shows the results of the analysis of variance, which indicated a significant difference among means.

Table 5
Information Test
Single Factor ANOVA on Five Means

Source	Sum of Squares	df	Mean Squares	F
Between groups	182.22	4	45.55	14.07*
Within groups	427.34	132	3.23	
Total	709.56	136		

*p < .01

The procedures for the Multiple Range Test divide the sample into two sub-sets, each of which contains groups which could have been drawn from a homogeneous population.

Table 6
Multiple Range Test

Subset 1

Group	5(control)
Mean	3.9

Subset 2

Group	4(non-organizing)	3(composite)	1(affective)	2(cognitive)
Mean	6.2	6.6	7.1	7.1

Scheffé Test - Minimum difference: 1.49

Therefore, it is concluded that there is no difference in information acquisition among the groups which viewed the program, regardless of preview. However, all groups viewing the program scored higher than the group which did not view the program.

Table 7
 Scores on the Attitude Questionnaire
 for the Five Groups
 (Means and Standard Deviations)

Treatment Groups by Preview	N	Mean	Standard Deviation
1 (affective)	28	10.4	2.1
2 (cognitive)	28	9.2	2.6
3 (composite)	28	8.8	3.0
4 (non-organizing)	28	9.6	2.1
5 (control)	25	8.7	2.3

Table 7 shows that the highest mean score on the questionnaire measuring attitudes towards learning and speaking French and making cross-cultural contacts (with a maximum possible score of 12) was obtained by the group viewing the program introduced by the preview of affective content, while the lowest mean score was obtained by the control group. However, the analysis of variance shown in Table 8 indicates that the differences among the means of the five groups were not significant at the .05 level.

Table 8

Attitude Questionnaire
Single Factor ANOVA on Five Means

Source	Sum of Squares	df	Mean Squares	F
Between groups	50.57	4	12.64	2.1
Within groups	794.21	132	6.02	
Total	844.78	136		

Since significant differences among the means were not found, the Multiple Range Test (see Table 9) indicated a single sub-set, showing that all groups could have been drawn from the same population.

Table 9

Multiple Range Test

Subset 1

Group	1(affective)	2(cognitive)	3(composite)	4(non-organizing)
Mean	10.4	9.2	8.8	9.6
	5(control)			
	8.7			

Therefore, we conclude that there is no difference in attitude scores among the groups, regardless of viewing condition.

Table 10

Scaled-Response Test Item Scores
for the Five Groups
(Means and Standard Deviations)

Treatment Groups by Preview	N	Mean	Standard Deviation
1 (affective)	28	3.9	1.0
2 (cognitive)	28	3.9	1.5
3 (composite)	28	4.1	1.2
4 (non-organizing)	28	4.2	1.0
5 (control)	25	2.8	1.3

Table 10 shows that the highest mean score on the questionnaire item having a scaled response was obtained by the group viewing the program introduced by the non-organizing preview, while the lowest mean score was obtained by the control group.

Table 11 shows the results of the analysis of variance, where significant differences among the groups were noted at the .01 level.

Table 11

Scaled Response Item
Single Factor ANOVA on Five Means

Source	Sum of Squares	df	Mean Squares	F
Between groups	32.78	4	8.19	5.45*
Within groups	198.28	132	1.50	
Total	231.06	136		

* $p < .01$

The Multiple Range Test procedures divided the groups into two homogenous sub-sets:

Table 12

Multiple Range Test

Subset 1

Group 5(control)
Mean 2.8

Subset 2

Group	2(cognitive)	1(affective)	3(composite)	4(non-organ-
Mean	3.9	3.9	4.1	4.2 zing)

Scheffé Test - Minimum difference: 1.03**

We conclude that on the scaled-response test item measuring attitude, groups who viewed the program scored higher than groups not viewing the program, regardless of preview conditions.

** The minimum difference derived by the Scheffé Test does not support the results of the Multiple Range Test. The Scheffé procedure uses more conservative criteria.

INTERPRETATION OF FINDINGS

The First Hypothesis

The statistically significant differences among means for the vocabulary test allowed for rejection of the null hypothesis for Hypothesis 1(a), which stated that the control group would learn as many French words as the group viewing the program. The Scheffé procedure for the multiple range test showed both the cognitive preview group and the group which saw the program which had a "non-organizing" preview to be significantly different from the control group. Thus, the null hypothesis for H1(a) can be rejected.

Differences between the control and treatment group means were statistically significant in the case of the information test related to the program's affective content. The multiple range test and Scheffé procedure confirmed this, by dividing the groups into two sub-sets, one of which comprised the control group alone. Thus, the null hypothesis can be rejected for H1(b).

Although the highest mean score on the attitude questionnaire was obtained by the group viewing the affective preview, the differences among the means were not statistically significant. The multiple range test confirmed this. Hence, the null hypothesis cannot be rejected for H1(c).

The scaled response item, also a measure of attitude, did register statistically significant differences. The multiple range test divided the groups into a sub-set containing the control group and a sub-set containing the

treatment groups. The null hypothesis is rejected for H1(c) as measured by the scaled response item. However, since threats to validity caused by instrumentation were not totally avoided in the case of attitude measurements, it is not possible to conclude a rejection of the null hypothesis for attitude measures related to any of the four hypotheses.

The Second Hypothesis

In the case of H2(a), significant differences were not found among the group means. This was confirmed in the multiple range test. Looking informally at the mean scores, one sees the predicted superiority of the affective treatment group over the cognitive, non-organizing and control groups. Nevertheless, the null hypothesis cannot be rejected for H2(a) by this measure.

For the scaled response measure of attitude, mean scores were not supportive of H2(a). The mean of the affective treatment group was lower than those of the cognitive and non-organizing previews. The multiple range test indicated clear differences existing only between the control and treatment groups. This measure did not reject the null hypothesis for H2(a).

Mean differences for the information test confirmed the predicted superiority of the affective preview over the non-organizing, preview, and control groups, but failed to confirm superiority over the cognitive preview. Although results were significant at the .01 level, the predicted mean differences were not reflected on the multiple range

test, which simply divided the groups into control and treatment groups. Thus, for H2(b), the null hypothesis is not rejected.

The null hypothesis for H2(c) states that the affective preview group will learn as many French words as the non-organizing preview and control groups. While vocabulary score means showed higher gains for the affective group than for the control group, the non-organizing preview was shown to have made greater vocabulary gains than the affective preview group. Furthermore, the multiple range test divided the sample into three sub-sets, one of which contained the affective preview along with the control and composite preview groups. Thus, the null hypothesis cannot be rejected for H2(c).

The Third Hypothesis

Significant differences were found among group means for the vocabulary test, but the outcome was not as predicted for H3. The highest mean vocabulary score was held by the group viewing the non-organizing preview instead of by the group viewing the cognitive preview. Both of these means were superior to those of the affective preview and control groups. Sub-sets produced by the multiple range test grouped the cognitive preview group with the non-organizing preview group in one instance, and with the affective preview group in another, making it impossible to reject the null hypothesis for H3.

The Fourth Hypothesis

The composite preview group did not obtain the highest

vocabulary score, as was predicted in H⁴(a). It was surpassed by the cognitive and non-organizing previews, as mentioned previously. Although the analysis of variance revealed significant results, the multiple range test showed that the composite preview group could have come from the same population as the affective, cognitive, and non-organizing preview groups. Thus, the null hypothesis cannot be rejected for H⁴(a).

The mean scores on the information test failed to confirm the predicted superiority of the group viewing the composite preview. It was surpassed by both the affective and cognitive previews, with significant differences. However, since the sub-sets created in the multiple range test only divided the groups into treatment and control conditions, the null hypothesis cannot be rejected for H⁴(b).

Since significant differences did not exist among the groups for the attitude questionnaire, one cannot reject the null hypothesis for H⁴(c). Even looking at them informally, however, it is evident that results were not in the direction predicted. The composite preview group did not surpass the other groups, and was surpassed itself by the affective, cognitive, and non-organizing groups, beating the control group by .1.

The scaled response item showed the composite preview surpassing the cognitive, affective, and control groups. The non-organizing preview group scored highest. However, the multiple range test results make it evident that the four preview groups could have come from the same population.

Thus, the null hypothesis for H4(c), as determined by the scaled response item, cannot be rejected.

THE EFFECT OF FRENCH IN THE SUBJECTS' ENVIRONMENTS

As has been mentioned in previous chapters, the subjects' exposure to French in their daily life was considered likely to have a strong influence on all four post-test measures. In particular, it was assumed that subjects with the lowest amount of French exposure would experience the greatest gains. Therefore, although levels of exposure to French were presumably dispersed in the sample through randomization procedures, it was decided during the course of the experiment that this would not necessarily ensure "equal" groups and that data should be gathered on exposure to French in the environment.

Exposure to French was conceived as two moderator variables: the use of French in the home (yes/no), and exposure to French radio, television, and print materials as well as to French-speaking playmates (high, medium, or low exposure). Thus, the nominal data accounted for actual practice in the language as well as exposure to French stimuli.

The effects of these moderators were examined through a multiple classification requested through the SPSS program ANOVA (see Tables 13 - 17). This analysis revealed no clear pattern of effects for the moderators, either in isolation or in interaction with one another and the independent variable.

There are a few possible explanations. The moderator "use of French in the home" may have been too vaguely defined, since the use of French may range from constant use with one or both parents to occasional use with visiting relatives. The fact that the children were enrolled in an English-speaking school should not have ruled out the possibility of heavy use of the French language at home. In addition, factors contributing to the "exposure to French" (high, medium, or low) may have had more subtle gradations of influence than accounted for in this measure. There remains the possibility that an unknown factor may have been responsible for the variances.

This section shows two types of three-way interactions noted: 1) interaction of the preview treatment with high exposure to French stimuli and use of French in the home, and 2) interaction of the preview treatment with the lowest level of exposure to French stimuli and non-use of French in the home. These two three-way interactions have been called high exposure to French and low exposure to French.

The mean scores for the three-way interactions have been compared with the mean scores when the independent variable is analyzed alone.

Table 13 (p. 68) shows that, while low exposure to French results in lower scores and high exposure to French results in higher scores, the pattern of scores is highly similar to the pattern created when the independent variable is treated alone. In all cases, the control group remained the lowest scoring group.

Table 13

Vocabulary Test Scores for the Five Groups

Treatment Groups by Preview	Independent Variable Alone	3-Way Interactions:	
		High Exposure to French	Low Exposure to French
1 (affective)	7.1	10.0 (n=1)	6.5 (n=2)
2 (cognitive)	9.1	10.0 (n=2)	8.0 (n=8)
3 (composite)	8.1	13.0 (n=1)	5.8 (n=6)
4 (non-organizing)	9.3	12.3 (n=3)	8.0 (n=19)
5 (control)	6.5	7.0 (n=1)	5.3 (n=12)

Three-way interactions were significant at the .05 level. However, the multiple range test procedures did not show differentiations among treatment groups.

Table 14

Vocabulary Test

Source of Variation	Variance Estimate	df	Mean Square	F
3-way interaction	66.25	3	22.09	3.17

Table 15

Mean Scores on the Information Test

Treatment Groups by Preview	Independent Variable Alone	3-Way Interactions:	
		High Exposure to French	Low Exposure to French
1 (affective)	7.1	7.0 (n=1)	4.0 (n=2)
2 (cognitive)	7.1	8.5 (n=2)	7.4 (n=14)
3 (composite)	6.6	7.0 (n=1)	5.8 (n=6)
4 (non-organizing)	6.2	6.0 (n=3)	6.2 (n=19)
5 (control)	3.9	5.0 (n=1)	4.5 (n=12)

For the information test, the patterns resembled one another. The highest mean for subjects having both high and low exposure to French came from those viewing the cognitive preview, while the highest mean for the groups when exposure to French was not taken into account was scored by the groups viewing the affective and cognitive previews. The analysis of variance, however, revealed that three-way interactions were not significant in this instance.

Table 16

Mean Scores for the Attitude Questionnaire

Treatment Groups by Preview	Independent Variable Alone	3-Way Interactions:	
		High Exposure to French	Low Exposure to French
1 (affective)	10.4	11.0 (n=1)	7.5 (n=2)
2 (cognitive)	9.2	9.7 (n=2)	8.3 (n=8)
3 (composite)	8.8	7.0 (n=1)	8.8 (n=6)
4 (non-organizing)	9.6	9.3 (n=3)	9.3 (n=19)
5 (control)	8.7	10.0 (n=1)	8.6 (n=12)

Mean scores for the attitude questionnaire showed subjects having high exposure to French and viewing the affective preview attaining the highest mean score. The highest mean score for the low-exposure subjects was attained by those watching the non-organizing preview. When the analysis was carried out without moderator data, the affective preview group scored highest. Again, however, three-way interactions were not found to be significant at the .05 level.

Table 17

Mean Scores for the Scaled Response Item

Treatment Groups by Preview	Independent Variable Alone	3-Way Interactions:	
		High Exposure to French	Low Exposure to French
1 (affective)	3.9	5.0 (n=1)	4.0 (n=2)
2 (cognitive)	3.9	2.5 (n=2)	2.6 (n=8)
3 (composite)	4.1	5.0 (n=2)	3.3 (n=6)
4 (non-organizing)	4.2	5.0 (n=3)	3.8 (n=19)
5 (control)	2.8	5.0 (n=1)	2.4 (n=12)

For the scaled-response attitude item also, three-way interactions were not significant at the .05 level.

CHAPTER IV

CONCLUSIONS AND RECOMMENDATIONS

In this chapter, the results of the data analyses are discussed in broader terms. The implications of these results are considered with respect to the fields of educational research and educational technology.

THE EFFECTS OF THE PROGRAM

Three of the post-test measures indicated that the subjects who watched the program (preceded by the non-organizing preview) had more knowledge of content taught in the program than subjects in the control group. These subjects obtained passing scores on the vocabulary test (average score of 69%) while the control subjects barely passed the French test (average score of 50%). This passing grade for the control group may indicate the presence of French in the subjects' environments, however.

Mean scores on the information post-test showed that the treatment group did learn facts related to the program's affective content (average grade of 62%), while the control group was unable to pass the test (average grade of 40%).

One measure of attitude towards learning and speaking French and making cross-cultural contacts showed the treatment group clearly superior to the control group. This was the single scaled-response item. On the more detailed, true-false attitude questionnaire, no differences were evident between the groups which saw the program and the

control group.

Since the single scaled-response item did show a large difference between treatment and control, one cannot simply conclude that the program had no effect on attitudes. The design of the questionnaire may have been too crude to pick up variations in responses as a result of exposure to the program. On the other hand, to expect clear changes in attitude as a result of exposure to a single program to appear in the most sensitive of attitude questionnaires might have been unrealistic.

Another limitation arises from the fact that "Mosaic City" was produced by students of television production. Although it is of acceptable technical quality to show to children (this was determined by course instructor Leonard Weinstein) it does lack the technical excellence of a professional studio production. Children raised to expect the sophistication of "Sesame Street" may have been less willing to consider "Mosaic City" a "real television program". This may have limited its capacity to teach and to influence attitudes.

THE EFFECTS OF USING TELEVISED PREVIEWS

No clear evidence was found to support the notion that a preview designed to orient the learner to cognitive, affective, or both cognitive and affective content increases learning from a television program.

There are several possible explanations. We will deal first with explanations that would be common to the cognitive

and affective previews.

Preview Segments Make No Difference

This experiment may support the findings of Barnes and Clawson (1975), which stated that "advance organizers" do not consistently augment learning from a subsequent instructional presentation, regardless of their medium.

Preview Segments Made No Difference for this Type of Content

Ausubel (1963) has stated that "advance organizers" only are effective when they provide a learning experience which helps the learner to integrate the new content which follows. When such a learning experience has been provided by other means, a "designed" organizer makes no difference. Thus, the fact that viewers live in a bilingual city may provide adequate orientation to learning new French words and making cross-cultural contacts, so that no preview to a program like "Mosaic City" shows any effect.

Sampling Procedures

Although random sampling procedures were assumed to mix the subjects with respect to their experience of the French language, the data gathered on exposure to French showed that the control group was not necessarily representative of the entire sample's entering French skills. Although pre-testing had not been considered because of the danger of sensitization to testing procedures and actually teaching vocabulary through the test, it now seems evident that some form of pre-testing is required. If pre-testing had been carried out one or two weeks prior to treatment (a procedure which, for this study, was not possible with

the two participating schools), it would have been possible to determine with more certainty what vocabulary had been gained through exposure to the program.

APPROACH TO DESIGNING THE PREVIEWS WAS ERRONEOUS

As mentioned in Chapter I, the approach to the design of the previews was eclectic. Elements were introduced because they had "worked" in previous studies. Thus, this study was much more the testing-out of a three-minute preview segment constructed in an eclectic way, than the testing-out of the validity of using previews per se. Certainly, the significant results pointing to the capacity of this preview to promote learning from a program would have encouraged one to consider the value of previews more closely. The fact that these previews did not reveal significant results (with the exception of the cognitive preview) does not, however, yield the conclusion that previews have no value.

Announcing a test period, albeit diplomatically, may have had a negative effect on the learners. It may have engendered anxiety or resentment which interfered with the attainment of cognitive and affective objectives, especially as they appeared in the preview segments.

The introduction of learning objectives through questions about program content may have made the previews less an introduction than an exercise. Being "assigned" to watch for various people and their actions in the plot may have led to anxiety or resentment. In addition, the job of

recalling facts - a cognitive objective - may have interfered with the affective objective of simply appreciating and identifying with the behaviour of the characters.

For all the preview segments, the volume of information and pacing of the three-minute introductions may have been intimidating. Although the pace of the program itself is considerably slower, the initial, packed introduction might have created the expectation that the program would be just as full, leading to frustration and possibly inattention.

THE EFFECTS OF PREVIEWING COGNITIVE CONTENT

The results of this study show that a preview of the cognitive content of "Mosaic City", that is, the vocabulary to be learned from it, did not improve learning from the program as measured by the vocabulary recognition test. Explanations specific to the cognitive content include the following:

1. Design of the preview - Possible flaws in the content of the preview may have reduced its effectiveness. The preview may have contained too many French words and expressions for a three-minute period. More research would have to be carried out on the number of words that would be advisable to introduce in both a program and a preview. The format of combining a narrator's voice with slides and video-tapes from the program also may not have been stimulating enough. Finally, the previews may have been too long in relation to the rest of the program.

2. Medium of the preview - The preview may have been perceived as part of the program, or simply ignored during an

initial "warming up" viewing period. To draw attention to the advance organizer, it might be more advisable to provide it through a different medium - a print viewing guide or a presentation by the teacher using graphics from the program.

THE EFFECTS OF PREVIEWING AFFECTIVE CONTENT

No clear evidence was found to support the notion that a preview which introduces affective content through behaviour models could increase affective gains from a program. The affective preview was actually testing two elements - the value of using advance organizers to preview affective content and the value of presenting this content through behaviour models in the preview.

Possible explanations of the results specific to the affective preview include the following:

1. Design of the preview - The characters created in the script of "Mosaic City" may have been less appropriate to the target group than was originally thought. Although the script was outlined in consultation with fourth-grade French teachers, the plot may have required more realism in order to influence attitudes. Puppets may not have been realistic enough behaviour models. The adult characters who had magical powers may not have been taken seriously for the same reason.
2. Medium of the preview - It is possible that a live discussion led by the teacher is a more appropriate orientation to the affective content of a program like "Mosaic City" than a televised preview. Pupils then could be told what to watch for, or provided with printed viewing guides after the discussion.

3. Instrumentation problems - The format of the main attitude questionnaire probably did not allow for enough variations in the attitudes expressed through it. The true-false format questionnaire allowed less scope than the single scaled-response item. In addition, the questions may have been too obvious in their intent - children in Montreal are often aware of the conflicts over the issue of French-language education. These problems arose from a certain naiveté on the part of the researcher, the effects of which were only perceived as testing concluded.

THE VALUE OF COMBINING COGNITIVE AND AFFECTIVE OBJECTIVES IN A PREVIEW

It is possible that, rather than mutually supporting one another, combined cognitive and affective previews work against one another. Learning objectives communicated by the cognitive preview might not be fully assimilated at the point where the affective preview begins. The effect might be to virtually wipe out the previous learning, a process known as retroactive inhibition. Similarly, the assimilation of affective objectives might be hindered by exposure to the preview of cognitive objectives, the problem of proactive inhibition (Hilgard and Bower, 1966).

THE EFFECTS OF EXPOSURE TO FRENCH ON LEARNING FROM THE PROGRAM

No clear conclusions may be drawn regarding the effect of exposure to French on learning from the television program and preview. This is partly due to a probably limited definition of exposure to French: high, medium, or low exposure to French.

media and French-speaking playmates, as well as use of non-use of French in the home. The lack of pattern in the data results (sometimes exposure and performance on the post-tests were positively correlated, sometimes they were not) suggests that another factor was affecting the results. This factor might be the type of use of French in the home - frequency, circumstances, etc. It might also be a factor quite divorced from the language questions, such as television viewing habits in the home and school.

In all educational research and design, it is important to know baseline levels of knowledge in the population and sample. The development of comprehensive questionnaires to determine viewer/learner experience at the time of an experimental treatment should be an area of further study.

RECOMMENDATIONS

More Specific Production Variable Research

The present study compared the effects of televised advance organizers for two quite different learning domains. It is now clear that more work has to be done to establish the value of advance organizers in each of the affective and cognitive domains. The numerous variables affecting the design of each should be manipulated separately. Only then will it be possible to determine whether it is the very existence of the advance organizer or the design of the specific advance organizer under study which affects or fails to affect learning from an instructional presentation.

Some variables to manipulate for previews of either

cognitive or affective content include the use of a live narrator versus the use of an unseen narrator, the use of questions versus no questions, announcement of a test versus no test announcement, use of a televised preview versus an orienting discussion versus use of a print preview, performer variables, special effects, and the use of pre-test questionnaires as orientation to the content of a program.

Pre-Tests

In studies dealing with language learning in a bilingual environment like Montreal, pre-tests should be devised to assess vocabulary levels and pre-treatment attitudes.

Further Research

The fact that vocabulary and information were taught through an informal approach which incorporated the English language, suggests that further experiments should be made in that area. It would be valuable to compare a program which uses only the French language to one using the bilingual approach of "Mosaic City" to teach the same vocabulary. If format and performer variables were held constant, one could confirm the value of promoting bilingualism through a mixed-language program! Again, an accurate attitude measure would have to be devised.

Bilingual programs have the advantage of appealing to both language groups simultaneously. Thus, a series of programs like "Mosaic City" could appear on either French or English community television networks. French and English-speaking children from the many integrated neighbourhoods in

Montreal would be able to exchange impressions on the program.

At this point in time, radio and television merely serve to reinforce the existence of two solitudes. With more research devoted to bilingual television programs, it may be possible to begin integrating a second language into our daily lives by integrating the mass-media.

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APPENDICES

A. Program Notes on "Mosaic City"

Title: "Mosaic City"

Length: 20 minutes

Target audience: elementary school students (grades 3, 4, and 5 - ages 8 to 12) in Montreal inner-city English schools.

Behavioral objectives of the program:

- a) to teach the French vocabulary words for objects seen on the street, as measured by a vocabulary test following the program;
- b) to promote positive attitudes towards learning and using French as measured by an attitude survey following the program.

Cast:

Ellie	Eleanor Coleman
Merlyn Tremblay	Steve Raulerson
Tabatha	Greta Tabachnick
Imogene	Marilynne Malkin
Charles	Pierre Croteau

Opening song sung by: Philippe and Christiane LeMieux.

Studio and puppet segments were produced in Studio A on January 26, 1977 in co-operation with the class of Educational Technology 684, instructor L. Weinstein, and technical advisor P. Vinet. The production crew included:

Camera people	Sophia Eliades Gervaise Melser Soerrouge Esther Agdala
Floor manager	Cheryl Malkin
CCU operator	John Lang
Audio operator	Stephanie Colvey
Switch	Arthur Patrick Rose
Director	David Stoloff
Script assistant	Carol Frazer
VTR operator	Paul Vinet

The video-taped segments were produced using one-half inch video-tapes and SONY porta-packs, and were edited on SONY 3600 half-inch video-tape units.

The final version of the program was edited on IVC 870 one-inch video-tape recorders with the assistance of several members of the Audio-Visual Department staff, including Daniel LeComte and Paul Vinet.

The script was written by Eleanor Coleman and David Stoloff. Script conventions used in the following papers are:

Cam - camera
CU - close-up
MS - medium shot
LS - long shot

T/C - téléciné - televised
slides
Audio - the audio track of
the program
Video - the video track of
the program

B. Script for "Mosaic City"VIDEOAUDIO

- 1 video-taped segment #1
1½ minute video-taped
montage of scenes in
Montreal

Mosaic City theme sung by
Philippe and Christiane Lemieux

Studio Segment #1

- 2 Cam 3: MS Merlyn

MERLYN: Hello and welcome to my
salon! Bonjour! Bienvenue!

- 3 Cam 2: LS Ellie and
Merlyn

ELLIE: Hello. Are you Merlyn
Tremblay, the so-called mind-
reader:

MERLYN: Oui, oui. Asseyez-vous.

- 4 Cam 1: MS Ellie sitting

ELLIE: Thank you. (sits)
I'm Ellie Coleman from Mosaic
City News.

- 5 Cam 3: MS Merlyn

MERLYN: Yes, yes. I know. I
can read your mind. . .

- 6 Cam 2: MS Ellie and
Merlyn

ELLIE: We have an appointment
for an interview. Didn't your
partner tell you?

MERLYN: Ah, oui. C'est vrai.

- 7 Cam 1: MS Ellie

ELLIE: (taking out steno pad) I
understand you've just opened
Montreal's first bilingual mind-
reading service.

- 8 Cam 2: LS Ellie and
Merlyn

MERLYN: "En français et en anglais,
Vos pensées, c'est mon métier."

CHARACTER GENERATOR

Regardez! (points above his head
to sign)

- 9 Cam 1: MS Ellie

ELLIE: That's very original.
You may speak French and English
but I don't believe you really
read minds.

- 10 Cam 2: MS Merlyn and
Ellie

MERLYN: I beg your pardon? I'll
show you right now. Think of
something, but don't tell me what

- 11 T/C slide 1: stop sign

VIDEOAUDIO

- it is. (slide of stop sign)
Vous pensez à l'arrêt.
- 12 Cam 1: MS Ellie
13 T/C slide 2: bus stop
- ELLIE: Vous avez raison. Oui, je pense à l'arrêt. Hmmmmmm.
Let's try again. Je pense à ...
(slide of bus stop)
- 14 T/C slide 3: bus stop and bus
- MERLYN: Vous pensez à l'arrêt d'autobus.
- 15 Cam 2: MS Merlyn and Ellie
- ELLIE: Je pense à l'arrêt d'autobus. Vous avez raison.
- Well, let's try something more difficult.
- MERLYN: (rubbing his hands gleefully) Ah...plus difficile.
- ELLIE: I'll think of going somewhere. You tell me where I'm going.
- MERLYN: Ha! C'est facile!
- ELLIE: Easy?
- MERLYN: Oui. Très facile. Fermez vos yeux.
- 16 Cam 3: MS Merlyn
- ELLIE: But I can think with my eyes open.
- 17 Cam 1: MS Ellie.
Zoom in to eyes and go out of focus.
- MERLYN: (impatiently) Est-ce que vous pouvez m'aider?
- ELLIE: Help you? (closing eyes) Okay.
- 18 video-taped segment #2.
1 minute video-taped segment with Ellie pointing to objects on the street.
- ELLIE: Well, what do you see?
- MERLYN: Je vois...l'escalier.
- ELLIE: Vous avez raison. Je pense à l'escalier.
- MERLYN: Vous descendez l'escalier.
- ELLIE: And now?

VIDEOAUDIO

MERLYN: Et maintenant, je vois...
le trottoir.

ELLIE: Vous avez raison. Le
trottoir. That's the sidewalk
just in front of my house.

MERLYN: Don't they shovel snow
in your neighborhood?...Ah.
Voici l'arrêt.

ELLIE: Not bad, Merlyn. I
tried to trick you by thinking
of it again. C'est l'arrêt.
Vous avez raison.

MERLYN: Maintenant, je vois le
coin de la rue.

ELLIE: That's my street corner.
Le coin de la rue. Wow. It's
easy for you.

MERLYN: Oui, c'est facile. Ah!
Vous pensez à la boîte aux lettres.

ELLIE: Oui, je pense à la boîte
aux lettres. C'est bien ça.

MERLYN: Et maintenant je vois le
feu de circulation.

ELLIE: Le feu de circulation.

MERLYN: Le feu est vert.

ELLIE: Non, le feu est jaune.

MERLYN: Le feu est rouge!

ELLIE: Merlyn, c'est fantastique!
(She opens her eyes to find
Tabatha beside her instead of
Merlyn) Oh!

TABBY: Hello. I'm Tabatha,
Merlyn's partner.

ELLIE: Oh yes, we spoke on the
phone. And what's your specialty?

Studio Segment #2

19 Cam 1: close-up of eyes.
Zoom out to MCU.

20 Cam 3: MS Tabatha
and Ellie

VIDEOAUDIO

21 Cam 2: Tabatha. Super-impose CHARACTER GENERATOR
(C.G. reads: "Your hands are my business")

TABBY: "Vos mains sont mon métier." (She points above her.)

Lose CHARACTER GENERATOR

ELLIE: So you're a palm-reader.

22 Cam 3: MS Tabatha - over Ellie's shoulder

TABBY: Bilingual palm-reader. Montrez-moi la main.

ELLIE: D'accord, je vous donne la main.

TABBY: (examining Ellie's hand) Très intéressant. Je vois... You were talking with some children the other day. Children from all different lands.

23 Video-taped segment #3
3 minute video-taped segment of interviews with children about their attitudes to their multi-cultural environment.

Studio segment #3

24 Cam 3: MS Tabatha

TABBY: Those are nice children you were talking to.

25 Cam 1: MS Ellie

ELLIE: Yes, I enjoyed meeting them. But how do I know you could really see them in my hand?

26 Cam 2: MS Ellie and Tabatha

TABBY: (Smiles enigmatically) That little girl, Cynthia. She had some interesting things to say...

ELLIE: I guess I have to believe it now. (takes some notes)

(There is a high-pitched hum. Ellie looks around for the cause while Tabby remains serene.)

MERLYN: (who has been lying down, suddenly sits up, still humming) Hummmmmahhheee.

(Cam 2 includes Ellie, Tabatha and Merlyn now)

ELLIE: What...is...he...

TABBY: Shh. He's receiving a

VIDEOAUDIO

(Cam 2: Slow zoom on television monitor)

Pre-recorded PUPPET SEGMENT
No. 1

27 Cam 2: Zoom out to MS Imogene

28 Cam 1: MS Imogene and Charles

29 Cam 2: CU Imogene

30 Cam 1: MS Imogene and Charles

special message. I better get out the crystal ball. (She produces a small television monitor)

ELLIE: That's not a crystal ball.

TABBY: It's our newest model. Our clients feel more at home watching it.

MERLYN: I'm tuning in on someone you know... Elle pense à vous.

ELLIE: That's Imogene!

IMOGENE: (singing as she moves along) Mosaic City, that's my home town. Mosaic City, c'est Montreal... Sure is a beautiful day. (looking up) Il... fait... beau. (She crashes into Charles, who has just wandered in aimlessly)

CHARLES: Oooof. Ah. Excusez. Ayoy.

IMOGENE: Woops. Ouch. Sorry.

CHARLES: Est-ce que vous pouvez m'aider?

IMOGENE: (not understanding) Aider?

CHARLES: Oui. Je suis perdu.

IMOGENE: Perdu. Oh boy. I wish I spoke more French. (to Charles) I don't understand. Je... ne... comprends pas.

CHARLES: Ou est le métro? Je suis perdu.

IMOGENE: (hopefully) Vous êtes Monsieur Perdu?

CHARLES: (desperate) Non, non! Je ne suis pas Monsieur Perdu.

VIDEOAUDIO

31 Cam 2: MS Imogene
(Zoom in to CU Imogene)

Studio segment #4

32 Mix Cam 3: MS Ellie
Lose Cam 1.

33 Cam 2: LS Tabby, Merlyn,
and Ellie

34 SLOW MIX: Cam 1 on
Cam 2

35 T/C Slide 4: metro

36 Mix Cam 1 on Cam 2:
LS of group at table

NEARLY, LOSE MIX

Je suis perdu. Ou est le métro?

IMOGENE: May...trow. Maytrow.
Sorry. Je...ne...comprends pas.

CHARLES: (sighing) Au revoir.

IMOGENE: (calling after him)
Good luck! Gee, I wish I knew
more French words.
Ellie knows some. I wish Ellie
were here...I wish Ellie were
here...I wish Ellie were here...

ELLIE: I wish I could help her...
Could I make contact with Imogene?

TABBY: On peut vous aider.
C'est facile.

MERLYN: Merlyn calling Imogene.
Merlyn calling Imogene.

IMOGENE: (Gasps, opens mouth wide)
What? Who's calling me?

ELLIE: Imogene, it's me. I'm
reaching you through that mind-
reader I said I was going to visit.

IMOGENE: No kidding!

ELLIE: We saw what just happened.
Would you like some help?

TABBY: Est-ce qu'on peut vous
aider?

IMOGENE: Yes! What's "perdu"?

TABBY: "Je suis perdu" means
"I'm lost".

IMOGENE: "Perdu"... "lost".
I can help him. What's "maytrow"?

MERLYN: (with bravado) Le métro!

IMOGENE: I can see it! The metro!
I can tell him how to get there.
Thanks. (starts to leave) Bye...

VIDEO

RETURN TO MIX: Cam 1 on
Cam 2

- 37 T/C Slide 5: sidewalk
- 38 T/C Slide 6: Sherbrooke
- 39 T/C Slide 7: another
view of Sherbrooke St.
- 40 MIX Cam 1 on Cam 2
- 41 T/C Slide 8: red light
- 42 T/C Slide 9: green light
- 43 T/C slide 10: stoplight
at corner

AUDIO

IMOGENE: Wait!

MERLYN: Est'ce qu'on peut vous
aider?

IMOGENE: I don't know how to
get there in French.

TABBY: This is a job for Montreal's
only truly bilingual mind-
readers. Now, first you tell us
how to get there . . .

IMOGENE: Well, I'm standing here
on the sidewalk:..

MERLYN: Le trottoir!

IMOGENE: Je suis sur...le
trottoir. To get to the metro,
you walk on Sherbrooke Street.

ELLIE: On marche sur la rue
Sherbrooke.

IMOGENE: Then, you cross
Sherbrooke Street.

TABBY: Puis, on traverse la
rue Sherbrooke . . .

IMOGENE: On traverse la rue
Sherbrooke . . .

MERLYN: Au feu de circulation!

IMOGENE: Au feu de circulation.

ELLIE: When do you cross the
street, Imogene?

IMOGENE: When the light's green.

MERLYN: Quand le feu est vert!

IMOGENE: Quand le feu est vert.

ELLIE: Ou est le feu de circu-
lation?

IMOGENE: Le feu de circulation
est...at the corner.

VIDEO

44 T/C Slide 11: corner
of Sherbrooke and
Jeanne Mance

45 T/C Slide 12: Place
des Arts

46 MIX Cam 1 on Cam 2

LOSE Cam 1
Cam 2: LS of group at
table

Cam 2 zoom in on monitor

47 MIX Cam 3: MS Charles
and Imogene (when she
arrives)

AUDIO

MERLYN: Au coin!

IMOGENE: Le feu de circulation
est au coin.

TABBY: Au coin de la rue
Sherbrooke et la rue Jeanne Mance.

IMOGENE: Ah, oui. On marche
sur la rue Jeanne Mance. The
metro's in front of those big
theatres.

TABBY: Le métro est devant la
Place des Arts.

IMOGENE: Got it. Merci. I'm
going to see if I can catch up
with that lost dog...That's
the strangest French lesson I've
ever had. (takes off)

ELLIE: Well, I'm discovering
more of your unusual talents.
(takes notes)

TABBY: And Imogene has quite a
talent for learning French.

ELLIE: It's because she likes
making friends so much. I hope
she remembers all those new words.

MERLYN: Shall we find out?

Pre-recorded PUPPET SEGMENT #2

(Charles is wandering, centre
stage)

CHARLES: Ah, je suis fatigué.

(Imogene rushes in from behind
and startles him.)

IMOGENE: Bonjour!

CHARLES: Ah! C'est vous. Eh
bien, je ne suis pas Monsieur
Perdu.

IMOGENE: Je peux...vous aider.

VIDEOAUDIO

48 Video-taped segment #3
an edited sequence of
objects on the street

CHARLES: Oui!? Je suis perdu.
Ou est le métro?

IMOGENE: Le métro? On marche
sur la rue Sherbrooke...et puis
(to camera) It's not far. I
might as well take him there.
(to Charles) Venez.

CHARLES: Avec vous? Vous parlez
français maintenant?

IMOGENE: Oui. With a little
help from my friends.

CHARLES: Okay. Allons-y.

Voice over

IMOGENE: On marche sur la rue
Sherbrooke.

CHARLES: C'est ça. C'est la
rue Sherbrooke.

IMOGENE: Puis, on traverse la
rue Sherbrooke au feu de cir-
culation.

CHARLES: Arrêtez! Le feu est
rouge!

IMOGENE: Vous avez raison.
Maintenant le feu est vert.

CHARLES: Allons-y. Ou sommes-nous?

IMOGENE: Au coin de la rue
Sherbrooke et la rue Jeanne Mance.

CHARLES: Je vois. Maintenant on
marche sur la rue Jeanne Mance.

IMOGENE: Oui, mais on est sur
le trottoir.

CHARLES: Vous avez raison. Ca,
C'est la rue. Ici, c'est le
trottoir.

IMOGENE: Et voilà la Place des Arts!

VIDEOAUDIO

Pre-recorded PUPPET SEGMENT
#3

49 Cam 2: Charles, Imogene
and rear-screen slide of
Place des Arts.

CHARLES: Je vois. Le métro est
devant la Place des Arts. Merci.
Maintenant je ne suis pas perdu.

IMOGENE: Et vous n'etes pas
Monsieur Perdu.

CHARLES: (laughing) Mais non!

IMOGENE: Comment vous appelez-vous?

CHARLES: Je m'appelle Charles.

IMOGENE: Charles. Pleased to
meet you, Charles. See you.
Au revoir. (starts to leave)

CHARLES: Attendez. Comment
vous appelez vous?

IMOGENE: Jè m'appelle Imogene.

CHARLES: Comment?

IMOGENE: Imogene.

CHARLES: Comme blue jean?
Imo-jean?

IMOGENE: Oui. Like bluejeans.
Well, see you. (starts to leave again)

50 Cam 3: CU Charles and
Imogene

CHARLES: (pursues her) Veux-
tu être mon amie?...eh..friend?

IMOGENE: Friend? Oui, oui, oui.

51 Cam 2: MS Imogene
and Charles

CHARLES: Viens avec moi...chez moi.

IMOGENE: Chez toi? But my place
is closer. Viens...chez moi.
We can visit Ellie. She knows
a mind-reader. Okay?

Studio Segment #5

52 Cam 3: MS Tabatha and
Ellie

ELLIE: It looks like Imogene has
a new friend. I've never seen
her pick up French so quickly.
(looks at watch) Goodness, the
afternoon's gone already. I'll
be leaving...

VIDEOAUDIO

53 Cam 2: MS Merlyn,
Tabatha and Ellie

MERLYN: Are you sure you have
all the facts for your newspaper
article?

ELLIE: Hmm. Maybe I'd better
check a few things. (leafs
through notes)

TABBY: Est-ce qu'on peut vous
aider?

ELLIE: Oui, s'il vous plait.
Merlyn, first you guessed some
objects I was thinking of.

54 T/C Slide 13: stop sign

MERLYN: Oui, oui. Il y avait...
l'arrêt.

55 T/C Slide 14: bus stop

ELLIE: (noting it) L'arrêt. —
(then, remembering)...Ah! et
l'arrêt d'autobus..

TABBY: Then you wanted to try
something more difficult.

MERLYN: Plus difficile. Mais
non! C'était facile!

ELLIE: Great. I think I have
down everything that happened...
Merlyn?

MERLYN: (in another trance)
HMMMMMMMMHHHEEE.

TABBY: Wait. He's having a
re-run.

56 T/C Slide 15: stairs

MERLYN: Je vois...l'escalier.

57 T/C Slide 16: sidewalk

ELLIE: L'escalier...

MERLYN: Someone ought to shovel
that sidewalk. It's a disgrace.

ELLIE: Le trottoir.

58 T/C Slide 17: street-
corner

MERLYN: Maintenant je vois le
coin de la rue.

59 T/C Slide 18: mailbox

TABBY: Oui, oui. Le coin de la rue.

VIDEOAUDIO

- 60 T/C Slide 19: stoplight
 MERLYN: Et la boîte aux lettres!
 TABBY: La boîte aux lettres!
 ELLIE: Et puis, le feu de circulation.
- 61 Cam 2: MS group at table
 MERLYN: (petulant) I was going to say it. Le feu de circulation.
 (Tabby starts humming the Mosaic City song and strums her mandolin)
 ELLIE: I've heard that tune before. (To camera) That means it's time to go.
- 62 Cam 3: MS Tabatha
 MIX CREDITS
 TABBY: (singing) Come visit my city/Come visit my town/It's made of many pieces/It's made of many sounds. . .
- 63 Cam 2: MS group at table
 TABBY AND MERLYN: My city's a puzzle/With many a piece/And each piece is as different/As China's from Greece...
 TABBY, MERLYN, ELLIE: Mosaic City, That's my home town. Mosaic City, c'est Montréal.
- 64 Cam 1: CU Charles, Imogene
 PUPPET SCENE
 CHARLES: Venez en ville/Venez me voir/Ma ville est une mosaïque/C'est son histoire/J'vous dis bonjour/Et bienvenue ici/Faites comme chez vous/En notre compagnie!
 CHARLES AND IMOGENE: Mosaic City, that's my home town. Mosaic City, c'est Montréal.
 IMOGENE: Some pieces of stone/the glue makes them stick/You put them together/To make a mosaic!
 ALL: Some people from faraway/Some people from here/They live near each other/All through the year. Mosaic City! That's my home town. Mosaic City! C'est Montréal.

C. PROGRAM PREVIEWS

A. INTRODUCTION - This section is common to both preview segments.

VIDEO

T/C - slide

T/C

T/C

T/C

T/C

AUDIO

(guitar music)

HELLO. THIS IS THE FIRST "MOAIC CITY" PROGRAM. TODAY YOU'LL MEET SOME SPECIAL MONTREALERS AND LEARN SOME FRENCH WORDS YOU CAN USE EVERY DAY. AFTER THE PROGRAM YOU'LL BE ASKED QUESTIONS TO SEE HOW MUCH YOU'VE LEARNED.

B. AFFECTIVE PREVIEW

VTR SEGMENTS

THIS IS IMOGENE. SHE'S JUST STARTING TO LEARN FRENCH--LIKE YOU ARE: CAN YOU FIND OUT FROM THE PROGRAM WHY IMOGENE LIKES LEARNING FRENCH?

AND HERE SHE IS WITH CHARLES. HE HAS A PROBLEM. HOW DOES IMOGENE HELP HIM?

YOU'LL ALSO SEE GRADE FIVE CHILDREN WHO HAVE COME TO MONTREAL FROM OTHER COUNTRIES. THEY'LL BE TALKING WITH CANADIAN CHILDREN AT THEIR SCHOOL. HOW DO THE CANADIANS HELP THE CHILDREN FROM OTHER COUNTRIES?

MERLYN AND TABATHA WILL PERFORM MAGIC IN FRENCH AND ENGLISH. HOW DO THEY HELP IMOGENE?

YOU'LL HEAR THE MOAIC CITY SONG SUNG BY CHRISTIANE AND PHILLIPE LEMIEUX IN FRENCH AND ENGLISH.

WHAT'S THE WORD THAT MEANS A PERSON

SPEAKS TWO LANGUAGES?

C. COGNITIVE PREVIEW

NOW, HERE ARE SOME CLUES ABOUT THE WORDS YOU WILL LEARN DURING THE PROGRAM. WATCH FOR THESE PICTURES AND LISTEN FOR THE FRENCH WORDS THAT MATCH THEM.

T/C STOP-SIGN
T/C BUS-STOP
T/C STAIRS
T/C SIDEWALK
T/C STREETCORNER
T/C MAILBOX
T/C TRAFFIC LIGHT

HERE'S YOUR SECOND CLUE: TRY TO FIND OUT WHAT THESE MONTREALERS ARE SAYING.

VTR

MERLYN: C'EST FACILE.
CHARLES: JE SUIS PERDU.
TABATHA: EST-CE QU'ON PEUT VOUS AIDER?
CHARLES: JE VOIS.
IMOGENE: ON TRAVERSE LA RUE SHERBROOKE.
MERLYN: LE FEU EST ROUGE.
CHARLES: OÙ EST LE METRO?
IMOGENE: ON MARCHE SUR LA RUE SHERBROOKE.

D. CONCLUSION OF PREVIEW

AND NOW, LISTEN TO THE SONG AND FIND OUT WHY MONTREAL IS... MOSAIC CITY!

D. THE "MOSAIC CITY" FRENCH TEST

This is a test to see how many words you have learned from the television show. It will not be used for your report card, but you should try your best. You will be asked to listen to French words and choose the best English meaning. Please do not talk during the test.

Here are the instructions; First, you will hear a word or sentence said in French. Then, you will hear four different English words or sentences. One of these English words or sentences means the same as the French words or sentences. You can read the four choices on these test sheets. You will choose the best English meaning for the French words or sentences you heard. To mark your choice, you will circle the letter beside the English meaning you have chosen.

Look at Question #1. Now, listen to the French word.

- *1) A. the house
- B. the book
- C. the hand
- D. the apple

Now, circle the letter beside the word that means the French word you just heard.

Look at Question #2. Now, listen to this French sentence.

- *2) A. I like Charles.
- B. My name is Charles.
- C. I am calling Charles.
- D. I am visiting Charles.

Now, circle the letter beside the sentence that means the French sentence you just heard.

- 3) A. the sidewalk
B. the street
C. the truck
D. the driveway
- 4) A. I am pretty.
B. I am smart.
C. I am worried.
D. I am lost.
- 5) A. the letters
B. the street corner
C. the mail box
D. the traffic light
- 6) A. The tree is green
B. The grass is green.
C. The fire is red.
D. The light is green.
- 7) A. the stop-sign
B. the corner
C. the traffic light
D. the sidewalk
- 8) A. You walk on Sherbrooke Street.
B. You cross Sherbrooke Street.
C. You travel on Sherbrooke Street.
D. You run along Sherbrooke Street.
- 9) A. the crosswalk
B. the street corner
C. the traffic light
D. the end of the street
- 10) A. the fire engine
B. the stop sign
C. the traffic light
D. the corner of the street

- *11) A. What is your name?
B. Where do you live?
C. Why are you lost?
D. Where is the metro?
- *12) A. the sidewalk
B. the stop sign
C. the bus stop
D. the traffic light
- 13) A. You walk on Jeanne Mance Street.
B. You march to Jeanne Mance Street.
C. You cross Jeanne Mance Street.
D. You go to Jeanne Mance Street.
- 14) A. It's lost.
B. It's easy.
C. It's nice.
D. It's hard.
- 15) A. I like Place des Arts.
B. I see Place des Arts.
C. I'm looking for Place des Arts.
D. I'm thinking of Place des Arts.
- 16) A. the corner
B. the escalator
C. the sidewalk
D. the stairs
- 17) A. Can we help you?
B. Will you teach me?
C. Can we find it?
D. Will you come with me?

PART II

In this part of the test, you will be asked a question. Following the question, you will see four different answers. Circle the letter beside the answer you think is right.

- 1) What is the word which means a person can speak two languages?
 - A. francophone
 - B. bilingual
 - C. anglophone
 - D. unilingual
- 2) What problem does Charles have when he first meets Imogene?
 - A. He is very hungry.
 - B. He wants to find Ellie.
 - C. He is looking for the metro.
 - D. He wants to know what time it is.
- 3) Why can't Imogene help Charles at first?
 - A. She doesn't like speaking French.
 - B. She doesn't know how to find the metro.
 - C. She is too busy to help him.
 - D. She doesn't understand what he is saying in French.
- 4) How did the children in the school say they help children from other countries?
 - A. They help them to understand English.
 - B. They show them around their neighbourhood.
 - C. They bring them books about Canada.
 - D. They tell them how to get to the metro.
- 5) Why does Imogene say "I wish Ellie were here"?
 - A. Imogene is lost, and she needs Ellie to help her.
 - B. Imogene would like Ellie to teach her some new French words.
 - C. Imogene wants to know if the mindreader did magic tricks for Ellie.
 - D. Imogene is tired of being all alone and would like to see her friend.
- 6) How does Imogene help Charles?
 - A. She tells him she would show him the metro if she knew more French.
 - B. She tells him to visit Merlyn and Tabatha after they reach the metro.
 - C. She tells him how to get to the metro and goes there with him, too.
 - D. She tells him how to get to the metro by himself, and wishes him luck.

- 7) Why is Montreal called "Mosaio City" in the program?
- A. It has lots of stones for making mosaics.
 - B. It has many different kinds of mosaics in its churches.
 - C. It has many different kinds of people.
 - D. Mosaic City is the French name for the city of Montreal, Quebec.
- 8) What does Charles want after Imogene helps him?
- A. He wants Imogene to be his friend.
 - B. He wants to know Imogene's phone number.
 - C. He wants to know which train to take.
 - D. He wants Imogene to take him to see Ellie.
- 9) Why does Imogene like learning French?
- A. Her friend Ellie knows French.
 - B. She likes singing French songs.
 - C. She likes to make new friends.
 - D. It's important to speak French in Montreal.
- 10) How do Merlyn and Tabatha help Imogene?
- A. They reach her through the crystal ball.
 - B. They tell her how to get to the bus stop.
 - C. They give her facts for her newspaper story.
 - D. They teach her some new French words by magic.

PART III

In this part of the test, you will hear a sentence and decide whether you feel it is true or not true. Now, here is a trial sentence.

It is fun to go to the movies.

TRUE _____

NOT TRUE _____

If you feel that it is fun to go to the movies, mark an "X" beside "TRUE".
If you do not feel it's fun to go to the movies, mark "X" beside NOT TRUE".

- * 1) You can help more people if you know French.

TRUE _____

NOT TRUE _____

- 2) It's silly for children to help each other learn languages in school.

TRUE _____

NOT TRUE _____

- *3) If a French-speaking person came over to me and started talking in French, I would try to answer back in French.

TRUE _____

NOT TRUE _____

- 4) Imogene will make more friends because she likes to learn French.

TRUE _____

NOT TRUE _____

- 5) You don't need to know French in Montreal.

TRUE _____

NOT TRUE _____

- *6) It's fun to try to use the French I know.

TRUE _____

NOT TRUE _____

- *7) Imogene will be able to help more people because she is learning French.

TRUE _____

NOT TRUE _____

- *8) People should help one another to learn languages.

TRUE _____

NOT TRUE _____

- 9) You won't make more friends if you know French.

TRUE _____

NOT TRUE _____

- 10) Imogene was right to stop and help Charles when he was lost.

TRUE _____

NOT TRUE _____

- 11) It is not important to know French if you want to help people in Montreal.

TRUE _____

NOT TRUE _____

- 12) It's good that the children in the program help each other to learn languages at school.

TRUE _____

NOT TRUE _____

- 13) If a French-speaking person came over to me and started talking in French, I would answer _____ in English.

TRUE _____

NOT TRUE _____

*14) When you see children who are lost, you should try to help them.

TRUE _____

NOT TRUE _____

*15) I don't like going to places where I might have to speak French.

TRUE _____

NOT TRUE _____

16) People who know French can make more friends.

TRUE _____

NOT TRUE _____

17) Imogene is silly to want to learn French so much.

TRUE _____

NOT TRUE _____

*18) You shouldn't bother to help people who are lost.

TRUE _____

NOT TRUE _____

19) I would like to speak French as well as Merlyn, Tabatha and Ellie one day.

TRUE _____

NOT TRUE _____

20) Montreal would be just as much fun if everyone spoke the same language.

TRUE _____

NOT TRUE _____

PART IV

In this part of the test, you will be asked questions about yourself.
Circle the number beside the right answer.

1) What language or languages do you speak at home?

1. English

2. French

3. another language: Which one? _____

4. English and another language: Which one? _____

**** 2) Who in the program is most like you?**

1. Charles
2. Tabatha
3. Ellie
4. Imogene
5. Merlyn

**** 3) Who in the program would you most like to be?**

1. Charles
2. Tabatha
3. Ellie
4. Imogene
5. Merlyn

4) How did you like the television program you just saw?

1. I didn't like it at all.
2. I didn't like most of it.
3. I liked some parts of it.
4. I liked most of it.
5. I liked it very much.

5) Would you like to be able to speak French more often with French-speaking people?

1. No, not at all.
2. No, not very often.
3. I'm not sure.
4. Yes, sometimes.
5. Yes, alot.

6) How many French-speaking children do you play with these days?

1. None at all.
2. One or two.
3. Two or three.
4. Between three and six.
5. More than six.

7) How often do you listen to French radio stations?

1. Never.
2. Once a month or so.
3. Once every week or so.
4. A few times a week.
5. Every day.

** 8) How often do you watch television in English?

1. Never.
2. Once a month or so.
3. Once every week or so.
4. A few times a week.
5. Every day.

9) How often do you read French books or magazines?

1. Never.
2. Once a month or so.
3. Once every week or so.
4. A few times a week.
5. Every day.

10) How often do you watch television in French?

1. Never.
2. Once a month or so.
3. Once every week or so.
4. A few times a week.
5. Every day.

11) How often do you go to a play or movie in French?

1. Never.
2. Once a month or so.
3. Once every week or so.
4. A few times a week.
5. Every day.

E. THE "MOSAIC CITY" TEST ANSWER SHEET

Part I: French Test (pp. 1-3)

	<u>French words</u>	<u>Correct Answer</u>
<u>Sample Items</u>	*1. la main	C
	*2. Je m'appelle Charles.	B
<u>Test Items</u>	3. le trottoir	A
	4. Je suis perdu.	D
	5. la boîte aux lettres	C
	6. Le feu est vert.	D
	7. l'arrêt	A
	8. On traverse la rue Sherbrooke.	B
	9. le coin de la rue	B
	10. le feu de circulation	C
	*11. Où est le métro?	D
	*12. l'arrêt d'autobus	C
	13. On marche sur la rue Jeanne Mance.	A
	14. C'est facile.	B
	15. Je vois la Place des Arts.	B
	16. l'escalier	D
	17. Est-ce qu'on peut vous aider?	A

Part II: Affective Informational Content (pp. 4-5)

- | | |
|------|-------|
| 1. B | 6. C |
| 2. C | 7. C |
| 3. D | 8. A |
| 4. A | 9. C |
| 5. B | 10. D |

Part III: The "Mosaic City" Attitudinal Survey

Score one point for each of the following responses:

- *1. True 1 → helping with French
2. Not true 2 → co-operative language learning
- *3. True 3 → using French
- *4. True 4 → group acceptance through knowing French
5. Not true 5 → attitudes towards French in Montreal
- *6. True 6 → using French
- *7. True 7
- *8. True 8
9. Not true 9
- *10. True 10 → helping the lost
11. Not true 11
12. True 12
13. Not true 13
- *14. True 14
- *15. Not true 15
16. True 16
17. Not true 17 → learning French
- *18. Not true 18
19. True 19
20. Not true 20
-

A List of Parallel Items

F. Reactions to the Television Show: Informal Observations

Notes were taken during administration of the treatments in order to gather informal data on children's attention levels during the program and previews. A few patterns emerged in terms of reactions to the show.

One reaction which seemed universal was high attention during scenes which used special effects, such as those featuring the magician and palm-reader performing strange feats. High attention also was noted during sections which included peers, and during the first puppet segment. The final scene with the puppets must have had less of a novelty effect.

Attention was low, however, when slides were shown in succession. Children were seen looking at one another and talking during these sections. The final video-taped segment, where downtown traffic is shown while the two puppets name the key words, also inspired little enthusiasm. Here, the video-tape was repeating content already presented in slide form earlier, and there were no people in the picture.

In the post-test questionnaire, children were asked how much they liked the program. A five point scale was given, ranging from "I didn't like it at all" to "I liked it very much". The results for each experimental group follow.

Response	Affective n=28	Cognitive n=28	Composite n=28	Non-Org. n=28	Control n=25
1. I didn't like it at all.	1	1	1	1	7
2. I didn't like most of it.	-	-	1	-	5
3. I liked some parts of it.	2	2	4	3	1
4. I liked most of it.	3	7	5	6	1
5. I liked it very much.	22	18	17	18	11

The responses indicate that the majority of children viewing the "Mosaic City" program enjoyed it. The greatest number of negative reactions came from the group not viewing the program.