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PREVIEW AND REVIEW IN "MOSAIC CITY":
THE EFFECT OF ORGANIZING SEGMENTS ON LEARNING FROM A
BILINGUAL EDUCATIONAL TELEVISION PROGRAM

DAVID L. STOLOFF

A Thesis
in
The Department
of
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ABSTRACT

DAVID STOLOFF

PREVIEW AND REVIEW IN "MOSAIC CITY": THE EFFECT OF
ORGANIZING SEGMENTS ON LEARNING FROM
A BILINGUAL EDUCATIONAL TELEVISION PROGRAM

This study examined the effectiveness of preview and review segments in enhancing learning from a bilingual television program, "Mosaic City". A stratified random sample of 199 fifth graders in four inner-city Montreal schools were assigned to five treatment groups. Four of the treatment groups were exposed to the 25 minute television program either preceded or followed by a video-taped preview, review, or non-organizing segment. A control group was not exposed to the program. Learning was measured by post-test scores on a French vocabulary and information test and an attitude survey. It was found that although the students exposed to the television program learned significantly more ($p < .01$) than students not exposed to "Mosaic City", there were no significant differences between the groups exposed to the program incorporating organizing segments. Viewer and learner variables were found to have significant effects on learning from the television program.

Acknowledgements

Producing a television program is very much a team effort. In many ways, so was producing this thesis. My gratitude goes to the members of my defense panel who read and commented on my work after very short notice - Dr. Mona Farrell, Dr. Grant Noble, and Dr. Gary Boyd. My added gratitude goes to Dr. Boyd who served as the jury chairman and helped me through my final revisions. Cheers to Shelley Yorke Rose, who undertook to set the thesis-typing record for a friend.

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To Ellie Coleman, my co-producer, co-worker, and dear friend, "jamais j'oublierai . . ." Without her sensitivity, creativity, and love, "Mosaic City" would have been no more than an "impossible dream". And to the town below Mt. Royal and all its magic, where in one year I learned that "bienvenu" means more than "welcome", je dis merci, bien, la métropole.

I would like to dedicate this first volume of my professional work to my parents - to the spirit of my mother, who taught me how to love, and to my father, who taught me how to live.

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Chapter I

Introduction

The increasing use of instructional television in the classroom is creating an urgent need for research in the various aspects of program presentation variables. Lumsdaine (1972) suggests that there are two overlapping areas of "content" that should be the concerns of effective television production. The first is what is presented - the objectives or the intended outcomes of the program. The second is how the program is presented. This study is concerned primarily with this second area of content. Continuing in the research line on organizers of instructional material and intersecting the research on the use of orienting stimuli in conjunction with television, this study explores the use of video-taped preview and review segments in the teaching of French vocabulary and the promoting of positive attitudes towards learning and using French to fifth graders using a twenty minute television production. In the context of the Québec educational system, this study also explores how a television program may be used to promote bilingualism among school children. Factors related to second language instruction such as sex differences and scholastic achievement levels and the viewer's attitudes towards the television program are examined for their effect on learning. Conclusions drawn from the analysis of these various factors are discussed for their generalizability and their implications for further research.

Problem statement

The goal of this research was to examine the effectiveness of the placement of orienting stimuli - in the form of two and one-half minute video-taped segments - as either a preview or a review on increasing student learning from a television program. Fifth graders in four inner-city Montreal schools were assigned to one of five treatment groups. The students were either shown the twenty minute television program preceded by a preview segment and followed by a review segment, preceded by a preview and followed by a non-organizing segment, preceded by a non-organizing segment and followed by a review, preceded and followed by non-organizing segments, or not exposed to the television program.

The research attempted to explore the following questions:

- 1) Do students exposed to twenty minutes of televised instruction learn more French vocabulary and information on the instruction's content and have a more positive attitude towards learning and using French than their peers who are not exposed to the instruction?
- 2) Do students learn more from a television program preceded by a video-taped preview segment and followed by a video-taped review segment than from the same television program either preceded by the preview and followed by a non-organizing segment, preceded by a non-organizing segment and followed by a review, or preceded and followed by non-organizing segments?
- 3) Do students learn more from a television program preceded by a video-taped preview segment and followed by a non-organizing segment than from the same television program either preceded by a non-organizing segment and followed by a review segment or preceded and followed by non-organizing segments?

The problem posed by this study in examining the use of a preview segment and a review segment in conjunction with a television program is consistent with past research in the placement of orienting stimuli in both prose and television instruction. The preview and review segments were designed to serve as a framework for student learning - as organizers using a modified form of behavioral objectives and questions. These segments were designed with the goal of increasing student interaction with the program rather than allowing for unguided, passive viewing. The study examined the effectiveness of these segments either alone or in combination in increasing learning from a television program.

Other concerns of this research included the examination of several viewer characteristics for their effect on learning from the television program. The students' language spoken at home, amount of television watched in French and English, the influence of French in their environment, academic achievement level, sex, and their attitude towards speaking French were considered important factors affecting their interaction with the televised instruction. Attitudes towards the characters within the story-line of the program and the viewer's general rating of the program were particular qualities of the television production examined for their relationships with learning from the instruction.

The study's relevance in educational technology

The British National Council for Educational Technology defines educational technology as "the development, application and evaluation of systems, techniques and aids to improve the process of human learning". This study focuses on the evaluation of certain techniques in organizational strategies designed to improve learning from the educational media, television, and surveys several of the factors involved in the process of second language learning. Drawing from previous studies dealing with the use of inserted questions within an instructional television program, research on the use of preview and review strategies in educational media, and from the principles of instructional design supported by research and practice, this study attempts to explore the use of specific principles in curriculum development within the realm of instructional television. While remaining within the context of research on the placement and the use of organizing segments in conjunction with a television program, this study also examines the effects of several human factors that students bring with them to the classroom that may influence their success at learning from a bilingual television program. It is these human factors that may prove in the long run to be the most important both in this preliminary study and in the domain of educational technology.

This study is organized into four chapters. Chapter II reviews the research on organizing segments in prose, film, and in instructional television. The relationships between

the viewer's characteristics and learning from instructional television are discussed in light of past research in language learning and studies in television research. This chapter serves as the theoretical background of this work.

Chapter III deals with the practical experience of this study. A description of the sample, the materials used, the testing and experimental procedures, the research hypotheses and design, and the methods of data analysis are included.

The results of this empirical study are reported in Chapter IV. The effect of the various treatments on learning is analyzed. Relationships between learning and the viewers' characteristics and attitudes are discussed. A summary of the significant factors in learning from the television program and their effect is presented through written description and through statistical tables.

Chapter V discusses the implications of these results within the body of established research. Following a description of the scope and limitations of this study, recommendations for further research are presented.

Chapter II

Review of the literature

The theoretical basis of this study is derived from a wide range of educational research. In this chapter, research on the use of instructional organizers in educational media is reviewed and discussed for its implications on the research question. An overview of how viewer variables may affect learning from a television program and how these factors may also influence language learning is also included.

The use of organizing segments in educational media

Various studies in a wide range of educational media have examined the use of organizing segments - inserted questions, advance organizers, outlines either preceding or in conjunction with the instruction, review or summary techniques, overviews - in enhancing learning. This study attempted to examine the effect of two such organizing segments on learning in both the cognitive and affective domains (Bloom, 1956). The preview in this study is a 2½ minute segment designed to alert the viewer to the vocabulary and events within the program. The review is designed to serve as a summation of the events within the program and to give the viewer practice in the vocabulary words instructed throughout the production. Using questions and visual cues, both organizing segments borrow techniques from several areas of educational media.

The functions of organizing segments Gagné and Briggs (1974) suggest that there are nine instructional events that are essential for optimum learning. The domain of an organizing segment preceding the stimulus material of the lesson would be to "gain attention, inform the learner of the objective" of the instruction, and "to stimulate recall of prerequisite learnings". An organizing segment following the stimulus material of the lesson would "enhance retention and transfer" of the lesson.

The use of organizing segments in prose The use of orienting stimuli in learning from prose may suggest some possible techniques for enhancing learning from television. Ausubel and Fitzgerald (1962) made use of advance organizers to enhance learning for students with poor verbal ability. The advance organizer, similar to a precís preceding instructional events, provides a framework for new learning and its retention by helping the student to recall previous relevant information and to obtain some familiarity with the instruction which follows. Advance organizers are designed for a higher level of abstraction than the instructional material they precede. This allows for greater accommodation of the material through association with previously experienced events. Kaplan and Simmons (1974) report that advance organizers of prose material are effective in increasing learning.

Ausubel (1963) contrasts advance organizers with perceptual organizers. Perceptual organizers are less abstract than advance organizers in that they provide cognitive

structures for specific concepts in the body of the instruction. Summaries, overviews, inserted questions, and behavioral objectives are commonly perceptual organizers because they remain on the same level of abstraction as the instruction, unlike the advance organizer that relies on higher levels of abstraction by the student (Ausubel, 1963). Several studies examine the use of perceptual organizers in enhancing learning from prose material. Rothkopf and Bisbicos (1967) and Frase (1968) report that questions following an instructional unit were more effective in increasing learning than the use of questions before the unit. Gonzalez (1975) reports that the use of both behavioral objectives in conjunction with questions were significantly more effective in increasing learning from prose than the use of no orienting stimuli. The use of either objectives or questions alone also increased learning but not significantly better than the use of no orienting stimuli. Duchastel and Merrill (1973), in a review of the effects of behavioral objectives on learning, conclude that the results from the empirical studies were inconsistent. Generalizations on the effectiveness of the use of behavioral objectives, regardless of placement, may be restricted because of the individual differences of learners and the way they interact with the objectives.

The use of organizing segments in film Perceptual organizers have been examined in past research in educational films (Ausubel, 1963). Northrop (1952), in his studies on the use of organizational outlines in instructional films,

found that providing a conceptual structure through an outline of key concepts within a film may enhance learning from a factual film but inhibit learning from an ideational film. He also reports that exposure to key words and concepts with the use of a perceptual organizer may facilitate learning and retention. Kurtz et al (1950) suggest that summaries are probably less effective than overviews for their influence on cognitive structure is retroactive rather than proactive with respect to the learning task. Lathrop and Norford (1949) report that neither overviews nor summaries appreciably improve student learning from instructional films.

The use of organizing segments in television The first studies in the use of organizing segments in conjunction with instructional television dealt with the insertion of questions in either "spaced" formats - distributed throughout a production either before or after an instructional unit - or "massed" formats - the placement of questions in a combined group before or after the entire production. Chu and Schramm (1967) find that the results of using either format were inconsistent. Studies by May and Lumsdaine (1958), McGuire (1961), and Pockrass (1961) suggest that the insertion of questions may improve learning only if a rest interval is included as part of the treatment. Kantor (1960) found no significant difference in learning when questions were massed and inserted before or after the instruction. Vuke (1963) reported no significant difference in increasing learning between a version with spaced format

questions within a program when compared to the program itself.

In a recent study, Coldevin (1975) compared three types of review strategies - summary, massed, and spaced reviews. All three strategies were found to facilitate significant information recall although the spaced treatment was significantly more effective than either the summary or massed formats. There seems to be no significant difference between the effectiveness of the summary and the massed formats. Coldevin (1976) attributed the greater effectiveness of the spaced review to the pause between review statements which enables "greater internalizations of content and covert practice between repetitions" (1976, p. 303). The use of rest pauses in review strategies, although seemingly effective in increasing learning from educational media, may not be practical for wide-spread instructional television with its prohibitive cost for each second of air time.

The implications of past research Although in principle the use of organizing segments should enhance learning from instructional material (Gagné and Briggs, 1974), past research in educational media has been inconclusive in this area. Advance organizers seem to be effective in increasing prose learning (Ausubel and Fitzgerald, 1962; Kaplan and Simmons, 1974) while the effectiveness of perceptual organizers in learning from prose has been inconsistent. Rothkopf and Bisbicos (1967) and Frase (1968) suggest that questions following a prose lesson are more effective than questions

preceding the lesson in increasing learning. Gonzalez (1975) adds that questions in conjunction with behavioral objectives are more effective in increasing learning than questions or behavioral objectives alone or the use of no organizing segments. Duchastel and Merrill (1973) conclude that the effects of behavioral objectives on learning are not generalizable. Outlines of instructional films given to students prior to the instruction may enhance learning from the film (Northrop, 1952) although neither overviews nor summaries have a similar effect on film instruction (Lathrop and Norford, 1949). Research in organizers in conjunction with television are also inconclusive. Studies in television deal with the effect of "massed" groups of questions or "spaced" questions in a television program. The "spaced" format seems to be more effective at increasing learning (May and Lumsdaine, 1958; McGuire, 1961; Pockrass, 1961; Coldevin, 1976). This is attributed to the rest pauses inherent in interrupting the televised instruction with question periods.

The problem posed by this study in examining the use of a preview preceding a television program or a review following the program were considered in the context of the literature. The preview and review served as orienting stimuli for the students while incorporating elements of behavioral objectives and questions. The preview and review were designed as perceptual organizers to introduce or re-introduce the characters of the program and alert the students to note or recall their actions. The students

were alerted through the use of slides and segments of the program to find or recall the French vocabulary words for objects they would see or had seen within the production. They were asked to watch for ways pro-social behavior were illustrated within the program. The preview and review should have also increased the students' active participation with the program. In light of the inconclusive results of past research, this study was supported in theory by the principles of instructional design described by Gagné and Briggs (1974) and the research on advance organizers (Ausubel and Fitzgerald, 1962).

Research in viewer and learner variables

This study examines the factors involved in student language and attitude learning from a television program. It is, therefore, related to past research in both viewer variables involved in learning from a television program and learner variables involved in language instruction.

Research in viewer variables Individual differences may affect the amount of learning from televised instruction. Briggs et al (1967) postulate that differences between the effectiveness of instruction by television may vary with the student's ability level. Gropper and Lumsdaine (1961) found that high IQ students learn better with a programmed television lesson than with a conventional, no response required lesson.

Individual attitudes towards the television program may also affect learning. Television researchers and producers

are aware of this for there are numerous examples of instructional television programs that use a pro-social approach to language learning. Montgomery (1974) describes the emphasis on positive self-concept development in the bilingual (Spanish-English) children's program, Carrascalendas. Closer to the environment of this study, Goldberg, Gorn, and Kanungo (1976) examined the use of multi-cultural segments in Sesame Street in enhancing pro-social attitudes towards speaking French. Research in viewer attitudes report specific findings. Rosekrans (1967) and Coates and Hartup (1969) report that there is a positive influence on learning from characters within television productions that viewers may identify with. Rust (1971) in a study on the use of children in Electric Company has found that their presence is associated with high viewer attention. Bandura (1967) suggests that power figures, such as adults or teachers within a television program, may be associated with learning. Through descriptions of studies on the differences in children's involvement and identification with television characters, Noble (1975) suggests that there are different styles of television viewing for children with differing self-concepts. Chu and Schramm (1967) state that liking an instructional television program may not always be correlated with learning from it.

The above studies suggest that viewer differences in ability and in attitudes towards the television production may influence learning from the instruction. This study followed along in these research directions and examined

the effect of scholastic achievement level and attitudes to the television program, including the students' attitudes to the characters within the production and the entire production itself, on learning.

Research in learner variables Research suggests that student differences may influence their success at second language learning. In an extensive study in the effectiveness of teaching French at the primary level in English and Welsh schools, Burstall (1975) found that differences related to sex, classroom characteristics, school environment, parental occupation, and attitudes towards speaking French were all significant influences on learning French. Girls were found to achieve more in French and have more positive attitudes towards learning French than boys. There was a positive correlation between parental occupation and student scores in French. No relationship was found between class size and French achievement nor between French achievement and achievement in other scholastic areas. Boys in single sex schools were more favorable to learning French than their counterparts in co-ed schools while girls in co-ed schools were more positive towards learning French than girls in single-sex schools.

Research in Montreal supports the importance of learner variables in influencing the instruction of French. Attitudes towards learning French were shown to be affected by the accent admonitions, given in a study by Karnani (1976). Tape-recorded rationales for taking a French course were either read with a typical North American English

accent or a French accent to university students. Karnani suggests that the French-accented presentation may have had a significantly negative effect on the attitudes of the students. Genesee (1977) suggests that there is a significant relationship between French language learning and students' attitudes and exposure to French in their daily environment. In a study of French immersion programs in local elementary schools, Lambert and Tucker (1972) found that fourth graders studying in a bilingual environment of French and English could communicate more effectively in both languages than students learning in an English-only environment.

Several of these factors were examined in this research. Sex, scholastic achievement level, and attitudes towards speaking French were analyzed for their effect on learning French. The two co-ed schools and the two single-sex schools in this study were also compared. The effect of the amount of French influence in the student's environment and the language or languages spoken at home were also studied in this research. The effect of the organizing segments on language learning and attitudes towards speaking French are also discussed.

Research hypotheses

Following within the framework of the literature, the major goal of this research was to study the effectiveness of a television program in conjunction with preview and review strategies in teaching French vocabulary and promoting positive attitudes towards learning and using French. The

foundation of this study then, were hypothesized as follows:

H1: Students exposed to the television program designed specifically for this research will learn more French vocabulary and demonstrate greater positive attitudes towards French than students not exposed to the television program.

Concerning the use of preview and review segments, the experimental hypotheses were as follows:

H2: Students exposed to an instructional television program preceded by a video-taped preview segment will learn more from the instruction than students who are exposed to the program preceded by a preview segment and followed by a non-organizing segment, preceded by a non-organizing segment and followed by a review segment, or preceded and followed by a non-organizing segment.

H3: Students will learn more from a television program preceded by a video-taped preview and followed by a non-organizing segment than from the same television program preceded by a non-organizing segment and followed by a review segment.

H4: Students will learn more from either a television program preceded by a preview segment and followed by a non-organizing segment or preceded by a non-organizing segment and followed by a review segment than from a television program preceded and

followed by non-organizing segments.

Rationale for the hypotheses The four hypotheses proposed by this study were all within the context of research on the use of orienting stimuli in conjunction with televised instruction. The first hypothesis (H1) was grounded in the last thirty years of research on instructional television; in their review of the research literature, Chu and Schramm (1967) support the notion that television can instruct. The recent work of Gorn, Goldberg, and Kanungo (1976) suggests that television can affect the attitudes of Montreal school children towards bilingualism.

The second hypothesis (H2) was grounded in the principles of instructional design. Gagné and Briggs (1974) outline nine instructional events required for effective instruction. Of these nine events, the non-organizing segments are designed only to gain the students' attention. The review segment was designed to enhance retention and transfer of the program's instruction. The preview segment was designed to gain the students' attention, inform the learner of the objective, and to stimulate "recall of prerequisite learnings". The combination, then, of the preview and the review in conjunction with the television program should maximize the possibility of at least four of the instructional events occurring.

The preview-non-organizer treatment should be more effective at increasing learning than the non-organizer review treatment as suggested by the third hypothesis (H3). This is consistent with the effectiveness of advance

organizers found in the research of Ausubel and Fitzgerald (1962).

The fourth hypothesis (H4) suggests that the use of either the preview or the review segments would be more effective than exposure to the program with only the non-organizing segments. Either organizing segment - the preview or the review - should provide a framework for the students to assimilate the instruction. This framework was hypothesized to be essential for effective learning from the program.

Other research considerations No research hypotheses were initially made for the relationships between the various human facets collected from the student questionnaires and learning. The literature suggests that these human factors may play significant roles in language learning and learning from television. These relationships were, therefore, examined but not hypothesized.

In review

In this chapter, the theory behind the experimental problems and design dealing with the effects of preview and review strategies on learning from a television show were discussed. An overview of research on viewer and learner variables, with emphasis on language and attitude learning, was also included. From this foundation of past research, hypotheses were formulated for this study. In the next chapter, the practical side of this study will be presented and discussed in light of this review of the literature.

Chapter III

Method

This chapter describes the purpose, subjects, and procedures of this study. The materials used, including descriptions of the television program, the preview and review segments, the tests developed for the study, and the apparatus and equipment used for the treatments are discussed. The research design and data collection and analysis are also described.

Purpose

The purpose of this research is to examine the effectiveness of a television program designed for this study used in conjunction with preview and review strategies in teaching French vocabulary and promoting positive attitudes towards learning and using French. This study explores some of the factors, such as amount of French exposure in the students' environment, language that the student speaks at home, and attitudes towards the television program, that may affect successful instruction of bilingual material using the television medium.

Subjects

The subjects were 199 fifth graders in four inner-city Montreal elementary schools. They ranged in age from 10 to 13, with most students being between 11 and 12. Forty-five students in the sample attended an all-girl school

while 48 attended an all-boy school; both these schools had a system of self-contained classrooms. The other students, 69 in one school and 38 in the other, attended intact classes within a school without walls, open-spaced design (Barth, 1972). The students in the sample all spoke English within the school environment, although only 41 students (21% of the sample) stated that English was the sole language spoken at home. The rest of the students spoke English and another language at home with the largest group speaking English and Portuguese (92 students or approximately 46% of the sample). The schools served what are considered to be low socio-economic neighborhoods with the major difference in school populations being that schools 1, 2, and 3 served communities of more recent immigrants to Canada than did school 4. This was reflected in the dominant language groups in the sample; most of the students in school 4 spoke only English in their home environment while in the other three schools most of the students reported speaking English and Portuguese in their homes.

Materials

Description of the television program The television program was called "Mosaic City" and was a twenty minute video-taped television show produced as a pilot for a series of programs designed to instruct French vocabulary and promote positive attitudes towards bilingualism among Montreal's elementary school children. This program contained ten different sections produced either on location

in an elementary school in Montreal or within the studio using the facilities of the Audio-Visual Department at Concordia University. "Mosaic City" was written and produced as a joint effort by Eleanor Coleman and David Stoloff and directed by David Stoloff in Studio A, Concordia University on January 26, 1977 in co-operation with technical officer, Mr. P. Vinet; instructor, Mr. L. Weinstein; and the class of Educational Technology 684. The production made use of interview segments, a story line involving bilingual mind-reading, a puppet story, and the use of slides as visual cues for vocabulary words.

The five major characters within the program were designed through plot and dialogue to instruct French vocabulary and promote positive attitudes towards learning and using French. Using a plot convention of mind-reading, two magicians named Merlyn and Tabatha, while trying to impress a reporter named Ellie, repeat the French words for items found commonly on the street - such as stop-signs, traffic lights - that are simultaneously paired with visuals illustrating these nouns. These words are used in a dialogue between two puppets, Imogene and Charles, in a situation of giving directions to the Metro (the subway). Imogene is instructed by the two magicians and Ellie, using a modified seance plot convention, in some of the new vocabulary words. These new words are practiced in another dialogue between Imogene and Charles. A review of the vocabulary instructed within the program precedes the closing song sung by all five characters.

The final version of the program also includes the opening song sung by two bilingual children and a video-taped insert of approximately five minutes duration of interviews with 6 fifth-graders at school 1. The interviews revolve around the positive aspects of multi-ethnic environments and positive attitudes towards learning French.

The program is approximately twenty minutes in length. The studio segments were originally recorded on one-inch video-tape while the other segments were recorded either on half-inch video-tape using a porta-pack or filmed using super-8 films. The final edited version was copied on half-inch tape to facilitate its use in the school. A script of the production and other program notes are included in the appendix.

The production was judged to be of sufficient technical quality by instructor Leonard Weinstein, a veteran producer of educational television programs for the CBC, for use as televised instruction. The principals and staff of the schools in the sample were invited to preview the program and comment on its appropriateness for their students. One of the principals thought that the students would enjoy the sections of television magic. Another commented that the fifth-graders might find the puppet segments a bit childish. Another of the principals thought that the underlining theme of the positive aspects of multi-cultural environments would be too subtle for the students. The French teachers thought that the French vocabulary level of the program was quite appropriate for fourth and fifth-

graders; the French vocabulary used in the program was selected through consultation with the French staff of the schools involved to coincide with the French curriculum for the end of the fifth grade. Overall, the principals and the staff at the four schools felt that showing "Mosaic City" to their class was a worthwhile activity.

Description of the preview and review segments The students were shown four different versions of "Mosaic City" as part of the major study of this research. Version 1 was a version of "Mosaic City" preceded by a preview segment and followed by a review segment. Version 2 included "Mosaic City" preceded by the preview segment and followed by a non-organizing segment. Version 3 was preceded by a non-organizing segment and followed by a review segment. Version 4 was preceded and followed by non-organizing segments.

The preview segment was a two and one-half minute segment designed to introduce the program, introduce the characters in the program, alert the students through questions to areas of the characters' behavior they should follow, and alert them through slides and segments of the production to French vocabulary words and phrases they would see used throughout the program. The segment's video component was composed of slides of Montreal and segments of the television program - a technique comparable to "coming attractions". The goal of the preview is to serve as a perceptual organizer for the student.

The review segment was a two and one-half minute segment designed to serve as a summary of the various

sections of the television program. It asked the students to recall the actions of the characters and the French words and phrases heard within the program. The review segment had the video track as the preview but had an audio track similar to the preview's but modified by using the past tense.

The non-organizing segments were a two and one-half minute montage of slides of the people and streets of a Montreal neighborhood. The audio track of the non-organizing segment preceding the program included a ten second announcement introducing the program and, like the preview, stating that a test follows the end of the program. This message was followed by a rendition of the "Mosaic City" theme song. The non-organizing segment following the program had a rendition of the song as an audio track only.

Description of the tests A questionnaire was administered following the experimental treatments. It was divided in four sections. The first three sections were designed as tests of learning from different elements of the television program. The first section was a French vocabulary test that required the student to choose the closes English translation for a French word or phrase. This test was accompanied by a cassette recording with the instructions and the 17 test items - 17 French words or phrases followed by four English words or phrases from which the students were instructed to circle the letter preceding the closest English translation. The second section, an information test, was a 10 multiple choice item test on the content of

the program. The students were asked to circle one of the four choices for each item that best answered the question. The third section was an attitude survey on learning and using French. The students were asked to either indicate their choice of "True" or "False" for each of 20 statements involving language learning and use.

A fourth section of the test was designed to collect data on student variables. The students were asked to indicate the language or languages they spoke at home, the character they identified with most and would most like to be like, how much they liked the television program, their attitudes towards speaking French, and the amount of English television they watched. A measure of French exposure in the students' environment was calculated from how many French friends the student had, how much French radio they listened to, how much French television they watched, how many French books or magazines they read, and how often they went to French movies or plays. A copy of these four sections of the "Mosaic City" questionnaire is found in the appendices.

Post-hoc analysis of the French vocabulary test, the information test, and the attitude survey were carried out by scoring thirty randomly selected tests. Using a Fortran procedure described by Veldman (1967) and modified by Dr. G.M. Huntley, an item analysis was run. Alpha coefficients for each test and reliability indices and difficulty indices for each item in each test were obtained. Accepting only items with a difficulty index of between

.33 and .67 and reliability index greater than .33, after guidelines discussed by Garrett and Woodworth (1966), the tests were revised by eliminating the poorer items. The final accepted version of the 17 item French vocabulary test was a 13 item test with an alpha coefficient of .85. Items 1, 2, 11, and 12 were removed because of high difficulty indices indicating that these items were much too easy. The final accepted version of the 10 item information test was an eight item test with an alpha coefficient of .77. Items 7 and 10 were removed because of low difficulty indices - these items may have been too difficult. The final version of the 20 item attitude test was a twelve item test with an alpha coefficient of .65. Items 2, 4, 7, 8, 9, 10, 12, and 14 were removed because of high difficulty indices and low item reliability. The alpha coefficients of the final versions of these three tests are considered acceptable for this sort of non-standardized testing (Garrett and Woodworth, 1966).

Equipment The one-half inch video tapes of the four versions of "Mosaic City" were played on two Sony 3600 video-tape recorders set up at two viewing stations in each school. The television sets (either supplied by the schools or brought by the research team) were black and white monitors - either RCA school models or Electrohome monitors. The viewing stations were set up in vacant store-rooms and class areas. Attempts were made to decrease the number of disturbances while the students were viewing the program and completing the questionnaire.

Procedure

In late April, 1977, the principals of schools 1 and 4 and the teachers in the fifth grade were contacted by the researchers with a request for their participation and the participation of their classes in this television study. The principals and teachers and the French teaching staff in both schools were invited to preview the program. The experiment was then scheduled with the full co-operation and permission of the teaching staffs at both schools.

Each treatment group was exposed to the television program on one of the 2 television monitors available at each school. In school 4, a black and white Electrohome and an RCA monitor were available and were placed in one of two enclosed classrooms not in use on the day of the experiment. In school 1, two black and white Electrohome monitors were available and placed in a classroom and an open area attached to the school gymnasium. With the co-operation of the teachers, two groups of about 15 students, selected using stratified random sampling (Tuckman, 1972) to control for scholastic achievement level, were exposed to one of the treatments in one of the testing areas during each of the two testing periods. A third testing period was used for the control group, who saw a television show unrelated to "Mosaic City". Following the exposure to the treatment, the questionnaire was administered. The television program and the testing procedure in total lasted about forty-five minutes. The procedure in school 4 had to be modified due to technical problems with the use of the video-

tape recorders. Only two treatment groups, the peer control group and the preview-review group proceeded as planned. In school 1, the procedure worked as planned with all five treatment groups.

Due to the technical problems at school 4 and in order to increase the generalizability of the study, the principals and the staff at schools 2 and 3 were contacted and asked for their permission and co-operation to run the study during the second week in May. The principals and teaching staff were invited to preview the program and the experiment was scheduled with their co-operation. Due to time restrictions, a selected group of 8 students from each school was administered the testing procedure a day prior to the experiment as a peer control group. On the day of the experiment, the researchers set up one viewing station in one of the classrooms in each of the fifth grades and the other in an adjacent room - in school 2, the school library and in school 3, a classroom not in use. The rest of the procedure continued as planned. Following the television version, the students listened for instructions and the questions of the French vocabulary test which were recorded on cassette. The other two tests and the data collection section were read to the students. The students were then returned to their normally scheduled classrooms.

Research design

The fifth graders at the four schools were assigned to one of the following treatment groups:

Treatment group 1: the students were exposed to the television program preceded by a video-taped preview segment and followed by a video-taped review segment.

Treatment group 2: the students were exposed to the television program preceded by a preview segment and followed by a video-taped segment not designed to serve as an organizer for the students.

Treatment group 3: the students were exposed to the television program preceded by a non-organizing segment and followed by a review segment.

Treatment group 4: the students were exposed to the television program preceded and followed by non-organizing segments.

Treatment group 5: the students at schools 1 and 4 were exposed to a television program not related to the content of "Mosaic City".

Sophia Eliades, a student in the Educational Technology program, granted us permission to use her production, "The Greek Myths", a twenty minute production in animation and slides dealing with the myths of cosmogenesis. The students at schools 2 and 3, due to time restrictions, were not exposed to a television program, but after a brief word of introduction, were given the student questionnaire.

The scheme below may clarify the relationships between treatment groups:

<u>SEGMENTS</u>	<u>TREATMENT GROUPS</u>				
	1	2	3	4	5
initial 2½ minutes	PREVIEW	PREVIEW	NON-ORGANIZING SEGMENT	NON-ORGANIZING SEGMENT	
20 minute television	Mosaic City	Mosaic City	Mosaic City	Mosaic City	The Greek Myths or no exposure
final 2½ minutes	REVIEW	NON-ORGANIZING SEGMENT	REVIEW	NON-ORGANIZING SEGMENT	to a tv program

Treatment group 4 may be considered as a control for the effect of the organizing segments. Treatment group 5 may be considered as a control for the effect of the instruction, the television program.

Following the exposure to the television program, the students were administered a post-test that had three test components - a French vocabulary test (Ov), an information test based on the program's content (Oi), and an attitudinal survey (Oa), as well as a data collection component (Od). The students were assigned randomly to treatment groups and then re-assigned to assure equalization of achievement levels within groups; achievement levels (Oal) were obtained through previously administered Stanford Achievement Tests (Madden et al, 1973) in schools 1 and 4. In schools 2 and 3, where data on student achievement levels were not available, the students were assigned randomly to treatment groups 1 to 4. Peer control groups, treatment group 5, of eight students from each of the two schools, were selected by the two teachers in each fifth grade class. The teachers were each asked to select one high achiever, two medium achievers, and one low achiever for this group.

The following is a shorthand scheme describing the research design of this study:

Oal R X1 Ov Oi Oa Od
 Oal R X2 Ov Oi Oa Od
 Oal R X3 Ov Oi Oa Od
 Oal R X4 Ov Oi Oa Od
 Oal R X5 Ov Oi Oa Od

R = randomization

Oal = observation on student
 achievement level

X1 - X5 = treatments

Ov = French vocabulary test
 scores

O_i = information test
scores

O_a = attitude test scores

O_d = observations on
student questionnaire

Data analysis

Test analysis After an item analysis and the post hoc revision of the three tests, the student questionnaire was scored and data was collected. The three tests - the French vocabulary test, the information test, and the attitude survey - provided three observations that were later examined statistically. The test scores were considered the dependent variables of this study.

Student variable analysis The fourth section of the student questionnaire supplied several observations. Item 1 generated the student variable of the language spoken in the home environment. Item 2 was considered to be the factor of student identification with the characters in the program. Item 3 provided information on student modelling of the characters - whom they would most like to be like. Item 4 was a program rating question.

Student attitudes towards speaking French were examined by item 5. Items 6, 7, 9, 10, and 11 were designed to measure the exposure to French in the student's environment. The responses to each of these items were totalled. A sum of between 0 and 8 points was considered to represent low French exposure in the environment, between 9 and 17 medium exposure, between 18 and 25 high French exposure.

Items 8 and 10 provided a measure of the amount of

television watching. Item 8 measured viewing in English, while item 10 measured television viewing in French.

Statistical analyses Statistical theory described by Tuckman (1972) and statistical practice provided by the Statistical Package for the Social Sciences (SPSS) (Nie et al, 1975) were used extensively in this study. The major research questions were examined by comparing treatment group scores on the three tests with one-way analyses of variance and Scheffe tests. The level of significance for these tests and all statistical tests in this study was set at .05 ($\alpha = .05$).

Due to a limitation in the software, several $3 \times 3 \times 5$ multivariate analyses of variance were run. The limitation was the result of a requirement in the SPSS ANOVA program of a minimum number of individuals in each statistical cell. Three of the five variables considered as main effects - sex, school, treatment, amount of French influence in the student's environment, and language spoken at home - were selected for each run. Five of the seven variables considered as covariates - student identification with the characters, student modelling of the characters, program rating, attitudes towards speaking French, the measure of French influence in the student's environment, amount of French television viewing, amount of English television viewing, and the scholastic achievement level - were also run in each analysis. Of the possible 560 multivariate analyses of variance with these factors and restrictions ($C_5^7 \times C_3^5$), selected analyses of variance were run by grouping factors that related to

viewer variables and viewer attitudes and exposure to French. One-way analyses and Scheffé tests were applied on the test scores by each of these main effects and covariates to determine the influence of these factors.

The test scores and other interval measures - such as amount of television viewing - were compared using a Pearson correlation program. Relationships between the non-parametric variables - such as sex, achievement level, and the viewer variables - were analyzed using the Spearman correlation program and Chi-Square tests.

Overview

This chapter attempted to discuss the means of the method - the study's sample, procedure, and materials allowed for the testing of the research hypothesis, the use of the research design, and the implementation of the data analysis. In Chapter IV, analyses of the results are discussed in light of the method and the literature.

Chapter IV

Results

In this chapter, the results of the two tests and the attitude survey and the data collected from the student questionnaire are examined for significant relationships. Examining the effects of the independent variables and the covariates on the test results by using multivariate analyses of variance, suggested that the majority of the variables had significant influences on the results of the experiment. To study their influences individually, one-way analyses of variance were applied. The test results of the treatment groups were examined to answer the major questions posed by the research hypotheses. Significant differences between the treatment groups were analyzed using a Scheffé test. Variables found to have significant influences on the test results were also examined, using one-way analyses of variance and Scheffe tests. Relationships between the variables are also reported in this chapter after applying Pearson and Spearman correlations procedures and Chi-square tests.

The level of significance for all statistical tests in this chapter was set at .05 ($\alpha = .05$). The statistical procedures followed in this study rely heavily on the versatile programs found in the Statistical Package for the Social Sciences (SPSS) (Nie et al, 1975).

The results of the multivariate analyses of variance

The five main effects - treatment, language spoken at

home, the measure of French exposure in the students' environment, sex, school - and their seven covariates: attitude towards speaking French; program personality the student most identified with and with whom they most liked to model; student program rating; amount of television watching in French and English; and scholastic achievement level were examined for their influence on the test results. Due to a limitation in the maximum number of levels of the main effects allowed in the SPSS ANOVA program, these factors were examined using a 3 X 3 X 5 multivariate analysis of variance statistical design. Using numerous multivariate analyses of variance, it was found that all of the five main effects and five of the seven covariates were individually significant sources of variation ($p < .05$) for at least one of the post-tests. Amount of television viewing in English and scholastic achievement level were not found to be significant influences on the two tests and the attitude survey. Significant two-way interactions were found between treatment and the measure of French influence in the student's environment for the information test ($p < .05$) and between treatment and language spoken in the student's home for the French vocabulary test ($p < .05$). Significant three-way interactions affecting the results of the French vocabulary test were found between treatment, sex, and the measure of French influence ($p < .05$) and between treatment, language, and French influence ($p < .05$).

These analyses of variance suggested that all but three of the factors examined in this study (amount of television

watched in English, scholastic achievement level, and the character the viewer would most like to be like) had significant effects on at least one of the test results. Due to the limitations on the statistical procedure, one cannot state conclusively the influence of each factor individually or in conjunction with the other factors on the reality of the experiment. As a result of this, the factors were examined using one-way analyses of variance in conjunction with Scheffé tests for their individual influence in the results of the study.

The results of the one-way analyses of variance by main effects

Treatment The means of the treatment groups on each of the three tests - the French vocabulary test, the information test, and the attitude survey - were examined using one-way analysis of variance and a multiple range test, the Scheffé test. The results of these two procedures were directed at the research hypotheses on the effect of the five treatment groups on learning. The one-way analyses of variance for the three tests by treatment groups are represented in Table 1. The results suggest that the effect due to the experimental treatment was significant for the French vocabulary test and the information test ($p < .001$). The experimental treatment was not significant for the attitude survey.

Using a conservative multiple range test, a Scheffé test (Huck, Cormier, and Bound, 1974), the means of the treatment groups were examined for each of the tests.

Table 1
 Test Scores by Treatment Groups
 One-way Analyses of Variances

DEPENDENT VARIABLE	SOURCE	D.F.	SUM OF SQUARES	MEAN SQUARES	F-RATIO
French vocabulary test	between groups	4	218.12	54.33	6.72*
	within groups	194	1575.09	8.12	
	TOTAL	198	1793.21		
Information test	between groups	4	275.21	68.80	24.60*
	within groups	194	542.50	2.80	
	TOTAL	198	817.71		
Attitude survey	between groups	4	33.53	8.38	2.14
	within groups	194	760.24	3.92	
	TOTAL	198	793.77		

* $p < .001$

Table 2, representing the results of these test, indicates that the means of the peer control group were significantly lower ($p < .001$) than the other treatment groups for both the French vocabulary and information tests. The means of the other four treatment groups did not significantly differ for these two tests nor did the means of all five treatment groups for the attitude survey.

Language spoken at home The students were classified into four major language groups for these analyses. There were 41 students grouped as English-only speakers, 11 as French-only speakers, 92 as English and Portuguese-speakers, and 55 as English and another language speakers. The English-only group's mean test score was significantly lower ($p < .001$) on the French vocabulary test than the means of the other three groups as indicated by a Scheffé test; the French-only group did not score significantly higher than the English and Portuguese or English and another language groups as one would have expected on this test. There were no significant differences between groups for the information test. The mean of the English-only group was significantly lower ($p < .01$) than the means of the other groups for the attitude survey; the French-only group did not score significantly higher than the other groups on this survey.

Measure of French exposure in the student's environment

The students were categorized into three groups according to the sum of their responses to items 6, 7, 9, 10, and 11 on the student questionnaire. Of the 199 students in the sample, 70 were considered to have low exposure to French.

Table 2

Results of the Scheffé Test for
Treatment: Test Scores

French Vocabulary Test
Grand Mean = 9.39

	Preview & Non- organ- izer	Non-organ- izer and Non-organ- izer	Non-organ- izer and Review	Preview & Review	Control
TREATMENT	N=32	N=36	N=31	N=54	N=46
MEANS	<u>10.84</u>	9.89	9.58	<u>9.56</u>	7.65
STANDARD DEVIATIONS	2.11	2.48	3.42	2.97	2.99

Information Test
Grand Mean = 5.22

	Preview and Review	Preview & Non-organ- izer	Non-organ- izer and Non-organ- izer	Non-or- ganizer and Review	Control
TREATMENT	N=54	N=32	N=36	N=31	N=46
MEANS	<u>6.17</u>	5.93	5.83	<u>5.16</u>	3.15
STANDARD DEVIATIONS	1.64	1.74	1.70	2.07	1.29

Attitude Survey
Grand Mean = 9.33

	Preview & Non- organ- izer	Non-organ- izer and Review	Preview & Review	Non-or- ganizer & Non- organizer	Control
TREATMENT	N=32	N=31	N=54	N=36	N=46
MEANS	9.84	9.61	9.48	9.25	8.66
STANDARD DEVIATIONS	1.80	2.14	1.85	2.02	2.10

Underlined means may be grouped in homogeneous subsets if no pair of scores differ by more than the shortest significant range for a subset of this size. Level of significance = .100.

in their environment, 86 had medium exposure, and 43 had high exposure to French in their environment. In a comparison of the three groups, using a Scheffé test, the means of the three groups were significantly different ($p < .001$) for the French vocabulary test. The low French exposure group had a mean score on this test that was significantly lower than the mean of the medium French exposure group, which in turn had a mean score that was significantly lower than the mean score of the group with high French exposure in their environment. There were no significant differences between mean scores between groups for the information test. The mean scores of the attitude survey were significantly different ($p < .001$) for these three groups. The low French exposure group had a mean score that was significantly lower than the mean scores of the other two groups; the medium and high French exposure group didn't have significantly different mean scores.

Sex The sex of the student was a significant factor for the information test ($p < .01$) and the attitude test ($p < .05$). It was not a significant factor in the scores on the French vocabulary test. The 98 boys in the sample had a mean score on the information test that was significantly lower than the 101 girls' mean score. The girls' mean score was also significantly higher on the attitude survey. The mean scores were not significantly different for the French vocabulary test.

School The students' school was a significant factor on the results of the French vocabulary test and the attitude

survey. School 4 had a mean score significantly lower ($p < .001$) than the other schools for the French vocabulary test. For the attitude survey, school 2's mean score was significantly higher ($p < .001$) than the other schools while school 1 had a mean score that was significantly higher ($p < .001$) than school 4 but not significantly different than school 3's mean score. It should be noted immediately that generalizations on these results should be avoided due to the irregularities in the procedure at the school.

The mean scores of the girls in the all-girls' school were compared with the mean scores of the girls in the two co-educational schools. There were significant differences between the mean scores of the three groups for the French vocabulary test ($p < .01$) and for the attitude survey ($p < .01$). The girls in school 4, a co-educational school, scored as a group significantly lower on the French vocabulary test ($p < .01$) than the girls in the other two schools. The girls in school 2, the single sex school, scored as a group significantly higher than the girls in the co-educational schools on the attitude survey ($p < .01$).

Similar comparisons were made with the boys in the single sex school and the boys in the two co-educational schools. The mean scores on the French vocabulary test were significantly lower for the boys in school 4 ($p < .001$) than for the boys in the other two schools; the mean scores of school 1, the other co-ed school and school 3, the single sex school, were not significantly different. The mean scores of the boys in the three schools were

not significantly different for the information test but they were significantly different for the attitude survey ($p < .05$). The mean score of the boys in school 4 was significantly lower ($p < .05$) on the attitude survey than the other two groups of boys; there was no significant difference between the means of the boys in the single sex school and the other co-ed school.

The results of the one-way analyses of variance by covariates

Attitude towards speaking French The students were asked by item 5 on the student questionnaire, "Would you like to be able to speak French more often with French-speaking people?" Twenty students of the 199 in the sample (group 1) selected "No, not at all." Eight students (group 2) chose "No, not very often." Thirty-two students (group 3) chose "I'm not sure." "Yes, sometimes." was chosen by 78 students (group 4). Sixty-one students (group 5) chose "Yes, a lot." The students were grouped by their responses to this question. There were significant differences between the mean scores of these groups for the French vocabulary test ($p < .01$) and for the attitude survey ($p < .001$). For the French vocabulary test, the Scheffé test suggests that there are two significantly different subsets of mean scores for these categories. A lower subset contains groups 1, 2, and 3. The higher subset includes groups 2, 3, 4, and 5. It is concluded from these results that the mean score of group 1 is significantly lower than the more positive response groups 4 and 5 for the French vocabulary test.

There were no significant differences between groups for the information test. The Scheffé test differentiates 2 subsets for the attitude survey - a lower subset of groups 1 and 2 and a higher subset of groups 2, 3, 4, and 5. From this, one concludes that the mean score of group 1 is significantly lower than the mean scores of groups 3, 4, and 5 for the attitude test.

Amount of television viewing in English and French

An estimate of the amount of student television viewing in English and French was obtained from items 8 and 10 on the student questionnaire. The students were grouped in categories of amount of viewing. One student in each category never watched television in English (group 1) or watched monthly (group 2). Five stated that they watched television in English weekly (group 3). Twenty students watched English television a few times a week. The majority of the students in the sample watched television in English daily - 171 of the 199 students (group 5). The amount of television watched in English did not prove to be a significant factor in this study. There were no significant differences between any of the test means or the survey means with the students grouped by these viewing categories.

The amount of television viewing in French contrasts markedly with viewing in English for the students in the sample. Thirty-three students of the 199 reported that they never watched television in French (group 1). Twenty-six watched monthly (group 2). Thirty-one were weekly viewers (group 3). Seventy watched a few times a week (group 4).

Thirty-eight were daily viewers (group 5). Viewing French television was a significant factor on the French vocabulary test. ($p < .001$). The Scheffé test placed the means of groups 1, 2, and 3 in the lower subset and groups 2, 3, 4, and 5 in the higher subset. It is then concluded that the mean scores of groups 4 and 5 are significantly higher than the mean scores of group 1. There were no significant differences between the mean scores of these groups for either the information test or the attitude survey.

Variables related to the program's content Three aspects of the program "Mosaic City", were examined by items 2, 3, and 4 of the student questionnaire. Item 2 asked the students what character in the program they felt they were most like. Twenty-two of the students (group 1) felt they were most like the francophone puppet, Charles. Ten (group 2) felt they were most like Tabatha, the palm-reader. Thirty (group 3) chose Ellie, the reporter. Seventy-three (group 4) of the 151 students who were exposed to the program chose Imogene, the anglophone puppet. Sixteen (group 5) felt they were most like Merlyn, the mind-reader. The choice of character was not a significant factor for the French vocabulary test and the information test. It was a significant factor for the attitude survey ($p < .01$). The students identifying with Imogene had a mean score on the attitude test that was significantly higher than the mean scores of the other groups.

Item 3 asked the students to choose the character in the program they would most want to be like. Twenty-three

students chose Charles (group 1). Eighteen chose Tabatha (group 2). Ellie was chosen by 33 of the students (group 3). Thirty-five chose Imogene (group 4). Forty-two chose Merlyn (group 5). The choice of character the student felt they would most want to be like was not a significant factor for the three tests.

Item 4 was a student program rating question. Six of the 151 students exposed to the program didn't like it at all (group 1). Three didn't like most of it (group 2). Twenty-two like parts of it (group 3). Twenty-one liked most of it (group 4). Ninety-nine students liked it very much (group 5). The degree of liking the program was not a significant factor in the results of the French vocabulary test and the information test. It was a significant factor in the results of the attitude survey ($p < .001$). The Scheffé test placed groups 1 and 2 in the lower subset and groups 2, 3, 4, and 5 in the higher subset. It is concluded then that the mean score of the students in group 1 was significantly lower than the mean scores of groups 3, 4, and 5 for the attitude survey.

Scholastic achievement level Scores on the total basic battery of the Stanford Achievement Test (Madden et al, 1973) for the fifth graders at schools 1 and 4 were collected by a research team directed by Dr. M. Farrell of Concordia University six months prior to this study. The students at both schools were placed in three categories by the researcher according to their raw scores on the test battery. Forty students were considered low achievers.

Twenty-nine were grouped as medium achievers. Thirty-five were considered high achievers. Due to the irregularities in the procedure at school 4, only these 104 students were examined for the effect of achievement level on learning from a television program. There were no significant differences between the means of any of the achievement groups for the French vocabulary test, the information test, or the attitude survey.

Summary of the significance of the variables on the test results Using one-way analyses of variance in conjunction with Scheffé tests, the levels of each of the variables in this study were examined for their effect on the tests. The five main effects were all significant influences on at least one of the tests or the attitude survey ($p < .05$). For the factor of treatment, the peer control group's mean score was found to be significantly lower ($p < .001$) than the mean scores of the other treatment groups for both the French vocabulary and information tests. The mean scores of the students who spoke English only in their home environments were significantly lower than the mean scores of the students who spoke English and Portuguese or English and another language or French only at home for the French vocabulary test ($p < .001$) and attitude survey ($p < .01$). In a comparison of exposure to French in the students' environment, it was found that the mean scores of the students with low exposure to French were significantly lower than the mean scores of the students with medium or high exposure to French for the French vocabulary test.

($p < .001$) and the attitude survey ($p < .001$). The mean score of the medium French exposure group was also significantly lower ($p < .001$) than the high French exposure group for the vocabulary test. The boys' mean scores were significantly lower than the girls' mean scores for the information test ($p < .01$) and the attitude survey ($p < .05$). School 2 had a mean score that was significantly higher for the attitude survey ($p < .001$) while the mean score of school 4 on the French vocabulary test was significantly lower ($p < .001$). In comparing the girls in the co-ed schools to the girls in the single sex school, it was found that the girls in the single sex school had a significantly higher mean score on the attitude survey ($p < .01$). Similar comparisons were made with the boys. There were no significant differences between the boys in the single sex school and school 1, a co-ed school. There were, though, significant differences between these two schools and the other co-ed school for the French vocabulary test ($p < .001$) and the attitude survey ($p < .05$).

In examining the effects of the covariates, it was found that students having more positive attitudes towards speaking French had significantly higher mean scores for the French vocabulary test ($p < .01$) and the attitude survey ($p < .001$) than the students having negative attitudes. Amount of English television viewing was not a significant factor in this study although amount of French television viewing was significant for the French vocabulary test ($p < .001$). The students who watched French television on

a daily basis or a few times a week scored significantly higher ($p < .001$) on the French vocabulary test than students who never watched television in French. Scholastic achievement level was not a significant factor for the three tests in this study.

Variables related to "Mosaic City's" content were also examined. It was found that students identifying with Imogene scored significantly higher on the attitude survey ($p < .01$). The choice of character the student would most want to be like was not significant in this study. Students who liked the television program had mean scores significantly higher than students who didn't like the program at all for the attitude survey ($p < .001$).

Significant relationships among the variables

Pearson correlations The parametric variables were examined for significant relationships using the Pearson correlation program. It was found that there were positive and significant correlations ($p < .001$) between the French vocabulary test and the information test, the attitude survey, the attitudes toward speaking French, amount of television viewing in French, and the measure of exposure to French in the environment. There were also positive and significant correlations ($p < .001$) between the attitude survey and the information test, attitudes toward speaking French and the measure of French exposure. Other positive and significant correlations ($p < .001$) were found between the attitudes towards speaking French and television viewing

in French and the measure of French exposure and between these attitudes and the information test ($p < .01$) and achievement level ($p < .05$). There were positive and significant correlations between television viewing in French and the measure of exposure to French ($p < .001$) and the attitude survey ($p < .01$). There were no significant correlations between television watching in English and any of these variables. Table 3 displays these correlations between the variables.

Spearman correlations The non-parametric variables were examined using a Spearman correlation program. It was found that the program rating variable had positive and significant correlations with the character the students felt they were most like, the character they wanted to be like and the attitudes towards speaking French ($p < .001$). There were positive and significant correlations between the character the students most wanted to be like and the character they felt most like ($p < .001$) and sex ($p < .05$). There was a positive and significant correlation between sex and school ($p < .01$). Three negative and significant correlations were found between school and language ($p < .001$) and program rating ($p < .05$) and between attitudes towards speaking French and sex ($p < .05$). These correlations are indicated in Table 4.

Chi-square tests The nominal variables were also examined for significantly different distributions by applying Chi-square tests. Differences in the distribution of the schools by sex and by language spoken at home were




Table 3

Pearson Correlation Coefficients
for Interval Measure Variables

	French vocabulary test	Information test	Attitude survey	Attitude towards French speaking	Amount of TV viewed in Eng.	Amount of TV viewed in Fr.	Measure of exposure to Fr.	Program Rating	Scholastic Achievement Level
French Vocabulary Test	1.00	.33***	.35***	.26***	-.03	.31***	.41***	.17*	.05
Information test	.33***	1.00	.23***	.16**	.03	-.10	.04	.22**	.13
Attitude Survey	.35***	.23***	1.00	.36***	-.01	.19**	.28***	.29***	.10
Attitude towards speaking French	.26***	.17**	.36***	1.00	-.07	.35***	.35***	.32***	.20
Amount of television viewed in Eng.	.03	-.01	-.07	1.00	1.00	-.06	-.09	-.14*	.10
Amount of television viewed in Fr.	.31***	-.10	.19**	.36***	-.06	1.00	.63***	.22**	.04
Measure of exposure to Fr.	.41***	-.04	.28***	.35***	-.09	.63***	1.00	.25	.03
Program Rating	.17*	.22**	.29***	.32***	-.14*	.22**	.25***	1.00	.18 (1)
Scholastic Ach. Level	.05	.13	.10	.20	.10	.04	.03	.18 (1)	1.00

*p < .05 **p < .01 ***p < .001 N=199 except for Program rating where N=153 and Scholastic Achievement Level where N=104
(1) N=74

Table 4
Spearman Correlation Coefficients
for Non-Parametric Variables

	Language spoken at home	Sex	School	Character viewer is most like	Character viewer would most like to be like
Language spoken at home	1.00	-.04	-.34***	.06	-.02
Sex	-.04	1.00	.21**	.01	.13*
School	-.34***	.21**	1.00	-.08	-.06
Character viewer is most like	-.06	.01	-.08	1.00	.58***
Character viewer would most like to be like	-.02	.13*	-.06	.58***	1.00

N=no. of cases N=199 *p < .05 **p < .01 ***p < .001

significant at the .001 level. The schools were also distributed differently by the measure of French exposure in the students' environment and by the character the students most felt like and by the character they would most want to be like at a level of significance of .05. The distribution of the attitudes towards speaking French by the character the student most felt like and by sex and by the students' program rating were significantly different at the .05 level of significance. Language spoken at home and the measure of French exposure were distributed differently at a .05 level of significance. Sex was also distributed differently by the character the students felt most like at a significance of .001 and by the character the students most wanted to be like at a significance level of .005. The distribution of language groups by attitudes towards speaking French and by achievement level were not statistically different.

Summary of the major findings

Following an item analysis and post-hoc revision of the three tests administered to the 199 students, and the collecting of data from the student questionnaire, multivariate analyses of variance were used to examine the interactions between the main effects and the covariates. It was found that all of the variables, except for amount of television watched in English, achievement level, and the character the student wanted to be like, were significant factors ($p < .05$) on at least one of the two tests or

attitude survey. One-way analyses of variance were then applied on each of these factors to determine their levels of significance individually. The effect of the treatment on the test results was examined in detail. It was found that of the five treatment groups, only the peer control group (the group having no exposure to the television program "Mosaic City") had a mean score that was significantly lower ($p < .001$) than the mean scores of the other treatment groups for the French vocabulary and information test when examined with a conservative multiple range test, the Scheffe' test. The means of the other four treatment groups, having different levels of exposure to the television program, although significantly higher than the peer control group, were not significantly different.

In examining the other eleven factors that may have affected the results of this study with one-way analyses of variance on each of the three tests, it was found that the school the student attended, the language spoken at home, the student's attitude toward speaking French, the measure of French exposure in the environment, and the amount of television watched in French were statistically significant effects on the scores on the French vocabulary test ($p < .05$). Sex had a significant effect on the information test ($p < .05$). School, sex, language spoken at home, the character the student most felt like, program rating, attitude toward speaking French, and the measure of French exposure in the student's environment were all statistically significant effects on the attitude test ($p < .05$).

In examining the relationships between variables, it was found that there were numerous positive and significant correlations ($p < .05$). Most noteworthy of these correlations were that the three tests were correlated significantly among themselves and with students' attitude toward speaking French, the measure of French exposure in the student's environment, and the amount of television viewing in French. Sex correlated positively and significantly ($p < .05$) with student identification and modelling of the program characters as did student program rating. Program rating also correlated with attitudes towards speaking French ($p < .05$). Using Chi-square tests, the schools were found to be significantly different ($p < .05$) by sex, language, measure of student exposure to French, and character identification and modelling. The language spoken at home and the measure of French exposure were also distributed differently at a .05 level of significance. The distribution of language by attitudes towards speaking French and by achievement level were not statistically different.

The goal of this chapter was to present the numerous relationships between the factors in this study and the three test results. The major research question on the use of organizing segments was examined as were the influence of the other main effects and covariates on learning. In Chapter V, these results are discussed within the limitations of this research and recommendations for further research are suggested.

Chapter V

Discussion

In the following pages, the results of the previous chapter are examined for their implications in relation to research in the areas of organizing segments in educational media, instructional television viewer variables, and second language learner variables. The scope and limitation of of this study are discussed prior to recommendations for further research in these areas.

Implications of the results in relation to the research

On organizing segments It was found that the mean scores of the four treatment groups exposed to "Mosaic City" in combination with different preview and review strategies did not significantly differ from each other for the three post-tests. This result is not inconsistent with past findings. From Lathrop and Norford (1949) in studies with overviews and summaries in films to Chu and Schramm (1967) in studies in various orienting stimuli in instructional television to Duchastel and Merrill (1973) in studies in the effects of behavioral objectives in learning, generalizations on the effects of perceptual organizers have been limited. That the peer control group's mean scores were significantly lower ($p < .001$) than the other treatment groups that were exposed to "Mosaic City" for the French vocabulary test and the information test is satisfying but not exciting. Perhaps the only consistent finding in

the body of research on instructional television is that television can teach (Chu and Schramm, 1967). That the control group's mean score on the attitude survey was not significantly different from the other treatment groups' is discouraging for the perhaps too idealistic producers of "Mosaic City" but not surprising considering the quality of both the television production and the questionable validity of the testing procedure.

On viewer variables Various viewer variables had significant influences on learning from this particular television program. School, language spoken in the home, attitudes towards speaking French, the measure of French exposure in the student's environment, and the amount of television watched in French were all significant factors ($p < .05$) in learning French vocabulary from the television program. Sex was a significant factor ($p < .05$) in the amount of information the students retained from the television program. Sex, school, language, the choice of character the students most felt like, program rating, attitudes towards speaking French, and the measure of French influence in the student's environment were significant factors ($p < .05$) in the results of the attitude survey. These results suggest the importance of attitude and environmental influences in learning from a television program. As suggested by Chu and Schramm (1967, p. 98), "instructional television is more complex than the research that deals with it. Complex behavior has baffled learning theorists for years. A number of variables are clearly at work in

determining what a given individual learns from television." In this study, the dominant factors were the exposure of French in the student's environment and their attitudes towards learning French. These results are clearly not unrelated to the reality of Montreal in 1977. Within the context of television research, the finding that student program rating was a significant factor ($p < .05$) in the results of the attitude survey may add another twist to the research in the relationship between attitude and the amount of material learned from instructional television (Chu and Schramm, 1967). That achievement level was not a significant factor in learning from the television program seems to go counter to previous research (Briggs et al, 1967). The significance of the choice of character the student most felt like on the attitude survey and the significant relationships ($p < .05$) between sex and character preference in this study are implied in the work of modelling theorists - Rosekrans (1967), Coates and Hartup (1969), and Rust (1971). That this attempt at producing a pro-social, bilingual television program had some impacts on student learning supports the current work of the Children Television Workshop and the general trend in educational television for children.

On second language learning It was found that attitude toward learning French, sex, school characteristics, language spoken at home, amount of television watched in French, and the measure of French exposure in the students' environment were all significant factors ($p < .05$) in learning French vocabulary from the program. Girls were found to

learn more French from the program and have a more positive attitude toward speaking French than the boys in the sample. No relationship was found between achievement in other scholastic areas and learning French from the program. These results concur with the work of Burstall (1975). Differences occur in the areas of single sex schools. The boys in the all-boys school were not significantly more favorable in their attitudes towards speaking French nor did they score on the average higher than the boys in one of the co-ed schools. The girls in the single-sex school were more positive toward speaking French than the girls in the two co-ed schools. These results differ from Burstall's conclusions, but their generalizability is limited due to the particular nature of this study. Unlike the students in Burstall's study from the English and Welsh schools, the students in this sample come from a variety of different ethnic and linguistic backgrounds which confound any attempts at generalization from these results.

Overview of this study in relation to past research

This study continues in the trend of inconclusive research results on the use of organizing segments in educational media. It confirmed the significance of viewer variables in learning from an instructional television program. Learner variables were shown to be highly significant in second language instruction.

The scope and limitations of the study

The major limitation of this study was its lack of

generalizability due to the use of a single television program. One cannot be sure if the results of the research may only be due to the particular nature of the program. There may be unaccountable interactive effects between the instructional television program and the type of orienting stimuli designed for this program. One television program or one study is not able to definitively conclude the effectiveness of using preview or review strategies; this study was only an attempt to continue with past research suggestions and to examine some of the major trends in the use of instructional design in educational television.

Another limitation of this study may be due to the quality of the television program and its transmission. Television production is an exacting art and a discipline which requires skills that the producers of "Mosaic City" were in the process of developing while the program was being produced. Although the program was not being directly evaluated - the concerns of this research were the use of orienting stimuli in connection with television - the program's quality was central to the instruction. The technical quality of the production and the soundness of the program as an educational experience were judged to be quite adequate by professionals (CBC producer Mr. L. Weinstein and the staff of the schools co-operating in the study) in each of these domains. It would probably be safe to say that "Mosaic City" is of acceptable quality although not quite up to the standards of professionally produced television.

Questions on the design of organizing segments may

pose threats to this study's validity. The length of the organizing segments - two and one half minutes preceding and following the program - may not be adequate for their function as orienting stimuli. The scripting and producing of the organizing segments were the result of a difficult compromise between the research goals and the need to retain the viewer's attention. In total, the organizing segments added five minutes to a television program lasting twenty minutes; Chu and Schramm (1967) suggest that twenty minutes should be the maximum duration of a children's educational television program. The actual design of the organizing segments made use of several instructional techniques - behavioral objectives, questions, and visual cues. These segments cannot, therefore, be categorized with other organizing segments in past research; this suggests a large threat to this study's generalizability.

The research made use of a post-test only design. Considering the variance in the students' linguistic backgrounds, attitudes towards using French, and exposure to French in the environment, a pre-test/post-test design would ideally have been more appropriate. Due to time limitations on the co-operation of the schools and due to a testing effect inherent in the pre-test/post-test design, a post-test-only design with a stratified random sampling to control for scholastic achievement level (Tuckman, 1972) was implemented. Use of this design relies heavily on the control group's scores for a measure of the students' previous knowledge and attitudes and may pose a major sampling

threat to this study.

The reliability, validity, and stability of the testing procedure may also prove to be a major limitation for this study. The indices of reliability for the French vocabulary test (.85) and the information test (.77) may be considered acceptable for non-standardized tests (Garrett and Woodworth, 1966). The attitude survey's lower index of reliability (.65) and predictive validity may be in question, however. The differences in the testing procedure in the four schools may have also had an effect on the research results.

The scope of the research may prove as a limitation. The program was designed for Montreal elementary school children approximately eight months ago. This past year has seen many changes in the social and political climate of the city which may suggest a large "history" threat to the study. A television program whose goals include the promotion of positive attitudes towards bilingualism may also be limited in its effectiveness by events external to the classroom and the school. The different natures of the four schools are also reflected in the results of the research and may also limit its external validity. Although the multi-ethnic composition of the total research sample reflects the particular nature of this city, it also limits this study's generalizability.

Recommendations for future research

In the light of inconclusive results on the differential effect of preview and review strategies in enhancing learning

from a bilingual television program and more importantly with the weight of past inconclusive research on these presentation variables, this researcher does not propose to continue studying in this area in the immediate future. The effect of organizing segments may be specific to the instruction and not generalizable as a principle. What is highly recommended is continuing research in the affective domain and television in the classroom. Work is needed in finding ways to promote positive attitudes to second language learning. The production and evaluation of educational media designed to teach second languages effectively and to introduce students to the variety of cultural philosophies and lifestyles within their own neighborhoods is an area of research in great demand in many regions of the world with ethnic groups in conflict. For such objectives, instructional packages, not individual productions, may be more effective. These objectives also require close examination of the actual events of instruction and research in student and instruction interactions. The results of this study suggest to this researcher that human factors - the complex interactions of the student, the environment, and the instruction - are an essential area to explore in future research.

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THE "MOSAIC CITY" FRENCH TEST - May/77

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.

NAME _____

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

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.

Part 4 (continued):

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.

SCRIPTS OF THE ORGANIZING SEGMENTS - THE PREVIEW AND REVIEW
SEGMENTS (DURATION: TWO AND ONE-HALF MINUTES)

VIDEO	PREVIEW AUDIO	REVIEW
1) 3 slides of common sights in Montreal (10 seconds)	Hello. This is the first program of "Mosaic City". 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.	Hi, again. You just saw the first program of "Mosaic City". In it you met some special Montrealers and learned some French words that you can use every day. In a few minutes, you'll be asked questions to see how much you've learned.
2) segments from the program with the characters introduced (5 different segments, 1 minute total duration)	This is Imogene. She's learning French - just like you are. Can you find out from the program why Imogene likes learning French?	You met Imogene. She's learning French - just like you are. Did 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?	And here's Imogene, with Charles. He had a problem. How did Imogene help him?
	You'll also see some 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?	You also saw some grade five children who have come to Montreal from other countries. They talked 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?	Merlyn and Tabatha performed magic in French and English. How did they help Imogene?

SCRIPTS OF THE ORGANIZING SEGMENTS (CONTINUED)

	PREVIEW	REVIEW
VIDEO	AUDIO	
...segments from the television program...	You'll hear the "Mosaic City" song sung by Christiane and Phillipe LeMieux in French and English. What's the word that means a person speaks two languages?	You heard the "Mosaic City" song sung by Christiane and Phillipe LeMieux in French and English. What's the word that means a person speaks two languages?
	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.	You probably heard some French words you haven't used before. Did you find out the French words that match these pictures?
3) 8 slides of common objects on the streets of Montreal		humming of the chorus of the "Mosaic City" song
CHARACTER GENERATOR: YOUR SECOND CLUE: LISTEN TO THESE SENTENCES...	Here's your second clue. Try to find out what these sentences mean.	Did you learn what these sentences mean?
4) segments from the program with audio track.	Merlyn: C'est facile. Charles: Où est le métro? Je suis perdu. Imogene: On traverse la rue Sherbrooke. Charles: Je vois. Imogene: Le feu est vert. Imogene: Ah, oui! On marche sur la rue Jeanne Mance. Tabatha: Est-ce qu'on peut vous aider?	
5) 2 slides of Montreal	And now, listen to the song and find out why Montreal is... Mosaic City...	From the song, did you find out why Montreal is Mosaic City? Bye for now.
	THE PROGRAM BEGINS....	THE PROGRAM ENDS.

SCRIPTS OF THE NON-ORGANIZING SEGMENTS
 DURATION: two and one-half minutes

VIDEO

1) 3 slides
 of Montréal
 as in
 organizing
 preview
 (10 sec.)

review starts
 only with
 series of 37
 slides of
 Montréal

AUDIO
 AS PREVIEW SEGMENT

Hello. This is the
 first program of
 "Mosaic City".
 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.

(the non-organizing
 preview continues
 and ends on the
 thirty-sixth slide)

AS REVIEW SEGMENT

theme song of Mosaic City:

Come visit my city
 Come visit my town
 It's made of many people
 It's made of many sounds

My city's a puzzle
 With many a piece
 And each piece is different
 As China's from Greece.

CHORUS:

Mosaic City, that's my hometown
 Mosaic City, c'est Montréal.

Venez en ville, Venez me voir
 Ma ville est une mosaïque
 C'est son histoire.

Je vous dis bonjour
 Et bienvenue ici
 Faites comme chez vous
 En notre compagnie.

CHORUS

Some pieces of stone
 The glue makes them stick
 You put them together
 To make a mosaic

Some people from faraway
 Some people from here
 They live with each other
 All through the year.

CHORUS

continues with humming
 of song and singing
 of chorus

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 Nelser Soerrpuge Esther Agdala
Floor manager	Cheryl Malkin
CCU operator	John Lang
Audio operator	Stephanie Colvey
Switcher	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 Vanet.

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

Script for "Mosaic City"VIDEOAUDIO

- 1 video-taped segment #1
1½ minute video-taped
montage of scenes in
Montreal
- Studio Segment #1
- 2 Cam 3: MS Merlyn
- 3 Cam 2: LS Ellie and
Merlyn
- 4 Cam 1: MS Ellie sitting
- 5 Cam 3: MS Merlyn
- 6 Cam 2: MS Ellie and
Merlyn
- 7 Cam 1: MS Ellie
- 8 Cam 2: LS Ellie and
Merlyn
- CHARACTER GENERATOR
- 9 Cam 1: MS Ellie
- 10 Cam 2: MS Merlyn and
Ellie
- 11 T/C slide 1: stop sign
- Mosaic City theme sung by
Philippe and Christiane LeMieux
- MERLYN: Hello and welcome to my
salon! Bonjour! Bienvenue!
- ELLIE: Hello. Are you Merlyn
Tremblay, the so-called mind-
reader?
- MERLYN: Oui, oui. Asseyez-vous.
- ELLIE: Thank you. (sits)
I'm Ellie Coleman from Mosaic
City News.
- MERLYN: Yes, yes. I know. I
can read your mind. . .
- ELLIE: We have an appointment
for an interview. Didn't your
partner tell you?
- MERLYN: Ah, oui. C'est vrai.
- ELLIE: (taking out steno pad) I
understand you've just opened
Montreal's first bilingual mind-
reading service.
- MERLYN: "En français et en anglais,
Vos pensées, c'est mon métier."
- Regardez! (points above his head
to sign)
- ELLIE: That's very original.
You may speak French and English
but I don't believe you really
read minds.
- MERLYN: I beg your pardon? I'll
show you right now. Think of
something, but don't tell me what

VIDEOAUDIO

- 12 Cam 1: MS Ellie
- 13 T/C slide 2: bus stop
- 14 T/C slide 3: bus stop and bus
- 15 Cam 2: MS Merlyn and Ellie
- 16 Cam 3: MS Merlyn
- 17 Cam 1: MS Ellie.
Zoom in to eyes and go out of focus.
- 18 video-taped segment #2.
1 minute video-taped segment with Ellie pointing to objects on the street.
- it is. (slide of stop sign)
Vous pensez à l'arrêt.
- ELLIE: Vous avez raison. Oui, je pense à l'arrêt. Hm. . . .
Let's try again. Je pense à . . .
(slide of bus stop)
- MERLYN: Vous pensez à l'arrêt d'autobus.
- 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.
- ELLIE: But I can think with my eyes open.
- MERLYN: (impatiently) Est-ce que vous pouvez m'aider?
- ELLIE: Help you? (closing eyes) Okay.
- 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!

Studio Segment #2

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

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

20 Cam 3: MS Tabatha
and Ellie

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

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

VIDEOAUDIO

- 21 Cam 2: Tabatha. Super-impose CHARACTER GENERATOR (C.G. reads: "Your hands are my business")
- Loss CHARACTER GENERATOR
- 22 Cam 3: MS Tabatha - over Ellie's shoulder
- 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
- 25 Cam 1: MS Ellie
- 26 Cam 2: MS Ellie and Tabatha
- (Cam 2 includes Ellie, Tabatha and Merlyn now)
- TABBY: "Vos mains sont mon métier." (She points above her.)
- ELLIE: So you're a palm-reader.
- 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.
- TABBY: Those are nice children you were talking to.
- ELLIE: Yes, I enjoyed meeting them. But how do I know you could really see them in my hand?
- 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.) HMMMMMAHHEEE.
- ELLIE: What..is...he...
- TABBY: Shh. He's receiving a.

VIDEOAUDIO

(Cam 2: Slow zoom on television monitor)

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!

Pre-recorded PUPPET SEGMENT
No. 1

27 Cam 2: Zoom out to MS Imogene

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

CHARLES: Ooof. Ah. Excusez. Ayoy.

IMOGENE: Woops. Ouch. Sorry.

28 Cam 1: MS Imogene and Charles

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

IMOGENE: (not understanding) Aider?

CHARLES: Oui. Je suis perdu.

29 Cam 2: CU Imogene

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

30 Cam 1; MS Imogene and Charles

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...

VIDEOAUDIO

RETURN TO MIX: Cam 1 on
Cam 2

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...

37 T/C Slide 5: sidewalk

MERLYN: Le trottoir!

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

38 T/C Slide 6: Sherbrooke

ELLIE: On marche sur la rue
Sherbrooke.

39 T/C Slide 7: another
view of Sherbrooke St.

IMOGENE: Then, you cross
Sherbrooke Street.

40 MIX Cam 1 on Cam 2

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

IMOGENE: On traverse la rue
Sherbrooke . . .

41 T/C Slide 8: red light

MERLYN: Au feu de circulation!

IMOGENE: Au feu de circulation.

ELLIE: When do you cross the
street, Imogene?

42 T/C Slide 9: green light

IMOGENE: When the light's green.

MERLYN: Quand le feu est vert!

IMOGENE: Quand le feu est vert.

43 T/C slide 10: stoplight
at corner

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: Je 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)
HMMMMMMHHHEEE.

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

56 T/C Slide 15: stairs

MERLYN: Je vois...l'escalier.

ELLIE: L'escalier...

57 T/C Slide 16: sidewalk

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.

VIDEO

AUDIO

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.

PUPPET SCENE

64. Cam 1: CU Charles,
Imogene

CHARLES: Venez en ville/Venez me voir/Ma ville est une mosaïque/C'est son histoire/Je 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 Montreal.

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.