Language Attrition in French-Speaking Missionaries

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LANGUAGE ATTRITION IN FRENCH-SPEAKING MISSIONARIES

A Thesis

Presented to the

College of Humanities

Brigham Young University

In Partial Fulfillment
of the Requirements for the Degree

Master of Arts

by

Peggy S. Mauerman

August 1985
This thesis, by Peggy S. Mauerman, is accepted in its present form by the Department of Language Acquisition of Brigham Young University as satisfying the thesis requirement for the degree of Master of Arts.

C. Ray Graham, Committee Chairman

Don C. Jensen, Committee Member

Date Robert A. Russell, Department Chairman

June 3, 1985
ACKNOWLEDGEMENTS

I wish to express my gratitude to Dr. Ray Graham and Dr. Wilfried DeCoo for their valuable suggestions and support of this project, to the workers in the HRC and the HLRC for their assistance and to the ASBYU for funding a part of this study.

I also give my special thanks to my family for their encouragement and to the subjects for the valuable time they donated and the enthusiasm with which they did it.
# TABLE OF CONTENTS

## LIST OF TABLES

<table>
<thead>
<tr>
<th>List</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>v</td>
</tr>
</tbody>
</table>

## Chapter

1. INTRODUCTION ............................................. 1
2. REVIEW OF LITERATURE ................................. 3
3. METHODS .................................................... 18
4. RESULTS ..................................................... 25
5. CONCLUSIONS AND RECOMMENDATIONS FOR FURTHER RESEARCH .......... 53

## APPENDICES

A. Written Vocabulary Test ................................ 59
B. Questionnaire ............................................. 67
C. Summary or Subjects' Responses .......................... 68

## REFERENCES .................................................. 69
LIST OF TABLES

Table                                      Page

1. Average Scores on Vocabulary Test...........25

2. Average Scores on Productive Portion of Vocabulary Test...........26

3. Average Scores on Recognition Portion of Vocabulary Test...........27

4. Types of Word Errors on Vocabulary Test...............28

5. Average of Natives' Judgments of Language Proficiency............31

6. Average of Natives' Judgments of Global Proficiency...............33

7. Average Speaking Speed.................................34

8. Total Words in Interview..............................35

9. Average Number of Words per Error..................36

10. Average Number of Verbs..............................37

11. Average Percentage of Correct Verb Usage...............38

12. Gender Usage............................................41

13. Article Usage..........................................42

14. Object Usage..........................................45

15. Prepositional Usage....................................46

16. Formation of Contractions............................47

17. Negations..............................................48

18. Agreement.............................................49

19. Word Choice...........................................51
<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>20. English Words</td>
<td>52</td>
</tr>
</tbody>
</table>
Chapter I

INTRODUCTION

Anyone who has learned a second language has experienced some kind of language attrition. Language attrition can be defined broadly as the loss of an entire language or any part of a language by an individual or by an entire speech community. Aphasia, language skill attrition commonly due to brain damage, has been widely recognized and researched in the past 150 years. A newer field of research is the attrition caused by lack of use or stimulation in a language. This type of loss might occur when a native speaker who moves to an area where his second language is dominant and he no longer has the necessary social interaction to maintain his native language, even though it had been acquired over many years. Language loss also includes the case of individuals who learned a second language in school, or even spent time in the second language community, but no longer have the opportunity to use their second language.

The following study attempts to respond to the question, is there a specific pattern of loss that all speakers of a particular second language follow? The language in question in this study is French. This study will also explore the manner in which factors other than grammatical
forms such as speed of speech and native speaker's judgement of proficiency work to determine the amount of loss.

In Chapter II, studies done on language attrition are discussed. These studies include those which test teaching methods in an attempt to find a method which minimizes later attrition, those which analyze attitudinal and motivational variables and their relationship to attrition and those which seek to determine the actual language skills lost after a period of non-usage.

The design of this research project is described in Chapter III and the results of the study are reported and discussed in Chapter IV. Chapter V contains conclusions drawn from the study and recommendations for further research.
Chapter II

REVIEW OF THE LITERATURE

Previous research done in the area of attrition caused by lack of stimulation in a second language was limited primarily to research which concentrated on comparing the efficiency of specific methods in maximizing the degree of retention of vocabulary words. Some of the methods compared were:

- Music vs. Dialogues (Conventional Instruction) (Hahn, 1972)
- Keyword vs. Rote Learning (Conventional Instruction) (Raugh and Atkinson, 1975)
- Computerized Instruction vs. Conventional Instruction (Marty and Myers, 1975)
- Suggestopedia vs. Conventional Instruction (Racle, 1977)
- Word Associations vs. Conventional Instruction (Cohen, 1979)

With the exception of the studies done by Marty and Myers (1975) and Racle (1977) the studies listed above were all testing short-term memory. The longest period of time elapsed between the treatment and the testing was six weeks. The time elapsed between treatment and testing in Fernand
and Myers' study was sixteen weeks and the lapse in Racle's study was two years. These two studies test longer term retention and are thus more relevant to the topic of this thesis. In these two as well as in all of the other experimental groups of the above studies, retention was found to be superior to that of the conventional groups. The only exceptions were two of the six experimental groups in Asher's study. In these groups the findings showed no significant differences between the experimental group (TPR) and the control group. The results of the retention studies thus indicate that the type of instruction used can be a variable when measuring language retention.

The influences of attitudinal and motivational variables on language attrition have also been investigated in a number of studies. There are three specific variables that have been found to be the most prevalent so far in the avoidance of attrition. The first variable is that of societal attitudes toward the language. Denison (1971) conducted a study of the Saurian people, a language community located in Italy that speaks Friulian, German and Italian. He concluded that the probability the language will be lost will be greater if the language does not have as much prestige as the other languages with which it is competing.

Robert Gardner (1980) explored social factors in language retention, emphasizing those factors which are of an atti-
Attitudinal or motivational nature. He too found that the prestige of the language is significant when determining the degree of attrition. He presents the following three hypotheses:

1) Attitudinal/motivational characteristics are related as directly to second language retention as they are to second language proficiency.

2) The higher the attitudinal/motivational characteristics are, the more likely the individual will attempt to maintain his second language skills once removed from the immediate stimulation.

3) The amount of language retention will, in part, be determined by societal attitudes towards that language.

This third hypothesis is in full agreement with Denison's conclusions regarding social attitudes and language prestige.

Gardner (1983) of the University of Ontario, designed a study to explore the variables of language loss, emphasizing motivational and attitudinal variables. Seventy-nine students from a six-week immersion course in a French community were the subjects. After a six month period in which no formal instruction was received, the subjects were given a questionnaire which contained scales measuring attitudes toward the French language and toward French Canadians, the intensity of the students' motivations to learn the language, the students' orientation toward language learning and whether their reasons for studying the language were integratively or instrumentally oriented. The researchers used self-reports to determine language competency of the subjects at the time of the survey. The subjects were
asked to report how competent they were at the present, which was six months after formal instruction had ended, and also to determine retrospectively how competent they were at the end of the formal instruction period. In order to gain a more accurate set of data for the self-reports, the researchers used a variation of Clark's "can do" scales. These scales ask the subject to rate how well he can carry out certain language tasks. For example, understand two native speakers when they are speaking rapidly with one another would be a listening task, understand the newspaper headlines would be a reading task and so forth. The tasks varied in difficulty; the subjects were asked to rate their ability to accomplish each task. The researchers found that "there was not any significant loss of skills that had been overlearned.... Instead, student-demonstrated attrition was obtained on reading skills." (Gardner et al. 1983:5) Amounts of interim use and the degree of positive attitude toward the language and people were not found to be related to each other. The amount of usage after the formal instruction had ended was found to be the variable which was most influential in determining the amount of loss suffered. Lambert and Moore (1984:5), refer to new research in attrition currently being conducted by Robert Gardner, who is measuring language competence in high school students and reports findings similar to those of his previous study.
Clark and Jorden (1984) also found that interim usage was a significant variable while conducting a study on attrition of the Japanese language. This study's subjects were graduates of Cornell University's Full-Year Asian Language Concentration Program (FALCON). The instrument utilized was a questionnaire designed to collect information about the nature and extent of use of Japanese following the completion of the subjects' formal study, attitudes towards the language, people and culture, language motivation and initial learning experiences in the language. The questionnaire contained both "can do" scales and self-ratings on various five-point scales which determined any changes in pronunciation, speech fluency, listening comprehension, vocabulary, reading comprehension, recognition of characters and grammatical accuracy that had taken place since the completion of the subjects' formal study. Clark and Jorden report some surprising results. They found that most of the graduates of the program did not experience attrition in their command of the language, but conversely, increased their Japanese skills. The researchers attribute this increase to the growing need for Japanese speakers in the job market. Some of the other findings were that proficiency loss in one language skill was not related to loss in another language skill, suggesting perhaps that language attrition is not related across skills. They also concluded that the level of ease or difficulty in
learning a language was not related to the amount of retention or attrition.

In their recent study, Snow, Padilla and Campbell (1983), examined motivational factors in language attrition and found that the student's level of interest in the language is also an important variable. A group of thirty-nine students from a Spanish immersion program in California was used as subjects. The instruments utilized in this study were the following:

MLA Spanish Proficiency Test--4 modes
CTBS Espanol-Test given by the district
Eight Videotapes of 6th graders
Questionnaire--Four forms given to the students when in the sixth grade, in junior high school and high school.

The questionnaire asked the students to rate certain statements on a seven-point scale ranging from strongly disagree with the statement to strongly agree with the statement. The statements concerned the role of personal and outside influences in the students' success in the language and their desire to continue learning the language. The questionnaire included statements about the students' interest in the language and in the classes, statements that would indicate the students' orientation toward the language, their psychological attitude about learning the language and the degree of parental support while learning the language. The researchers found that the student's interest in the language was the most effective factor in minimizing attrition. The other factors, in
order of effectiveness were as follows: parental value, parental participation, integrative orientation I (defined as the orientation focused on the speakers of the language), integrative orientation II (defined as the orientation focused on activities performed while using the language) and finally, arguments for bilingualism.

Bahrick (1984) tested 773 students of Spanish for language attrition. The period between formal instruction and testing varied from no interval at all to an interval of fifty years. The instrument consisted of a questionnaire which explored the subject's background, eliciting information such as the type and length of Spanish instruction, opportunities to use the language after the formal instruction period had ended, any experience with another Romance language, and a written test with ten subtests as follows:

1) Reading Comprehension  
2) Spanish-English recall vocabulary  
3) Spanish-English recognition vocabulary  
4) English-Spanish recall vocabulary  
5) English-Spanish recognition vocabulary  
6) Grammar recall  
7) Grammar recognition  
8) Idiom recall  
9) Idiom recognition  
10) Word order

The study produced some very interesting findings. Some of them are:

1) Much content survives more than 50 years.  
2) Grades received in courses continue to be valid indicators of ability.  
3) The training of a single course is unlikely to leave permanent content.  
4) The greater the number of courses the individual has taken, the larger the portion of content possessing
I

permastore longevity. (Longterm memory which requires no rehearsal)

5) Attrition affects smaller portions of recognition vocabulary than recall vocabulary.

The variables that Bahrick found to be significant in determining attrition in his subjects were not amount of interim usage or societal attitudes but the variations in level of language training received (in this case Spanish), mean grade received in courses and any subsequent training in another Romance language.

The studies most relevant to the present study are those which measure the retention of language skills after a period of nonusage. One of the earliest studies of this type was done by L. R. Kennedy (1932), using high school students enrolled in Latin I and II as subjects. Kennedy used the Pressey test, a multiple-choice test which incorporated thirty-two syntactical principles as his instrument. The time elapsed between testing was a three month summer vacation. The subjects who did not continue in Latin were tested again at the end of the following school year. Kennedy was interested primarily in the loss of syntax and found a 15-34% loss in syntax. Kennedy's conclusions were that

"those principles of syntax best known initially by all groups also appear to be best known at succeeding test intervals. The opposite of this is also true. It also appeared that only those principles that were known initially by more than two-thirds of a given group had any chance of appearing in the middle or upper one-third of frequency in retests." (Kennedy 1932:145)
Kennedy also concludes that initial achievement is a far more significant factor in retention than is the degree of intelligence of the subject.

In 1950, Geoghegan conducted an extension of Kennedy's study. She used 246 high school students who were learning either Latin, French or Spanish. She was testing for retention of translation skills, vocabulary and grammar over the summer vacation. She reported a significant gain in vocabulary for the French subjects and no significant losses in translation or grammar. The Latin group showed no areas of gain, but significant losses in all three areas. The Spanish group reportedly suffered significant losses in translation and vocabulary and a loss, although not significant, in grammar.

Scherer (1957) studied a total of 135 German college students for language loss after a summer vacation. The study was conducted over a six-year period. The test that was administered was a nationally standardized grammar-reading test. The eligibility requirements for the subjects were: 1) The student had to have completed his first year of study at the end of the college year and not participated in any formal study before the next fall semester and 2) the student must not have had any considerable contact with the language during the summer months. The researcher expressed the opinion that a class made up of students who were eligible for his study would be a class below normal ability since it should be expected that the students
would continue in their study of the language throughout the summer months. The findings of this study were that there was a slight loss in grammar and a slight gain in reading ability after the three month period of non-use. Neither the loss nor the gain were statistically significant. Scherer attributed the high rate of retention to the intensive nature of the course:

"There is some reason to believe that the five-hour course does not afford the busy student enough time for full digestion of the material. His mental metabolism continues to work after the course is over and finally catches up at some time during the summer." (Scherer 1957:277)

Another study done on the amount of retention of a language after its non-use during a summer vacation was done by Pratella (1970). He used 200 college students learning second year Spanish and tested them before and after their summer vacation. The areas in which he tested them were listening comprehension, speaking, reading and writing. He found that there was a significant loss in listening comprehension, but no significant losses or gains in speaking, reading or writing.

Smythe et al. conducted two similar studies. One study was conducted to investigate the effect of summer vacation on language retention and the second, more detailed study examined the effect of summer vacation plus one semester during which the subjects were not involved in any second language instruction. The first study utilized 220 subjects of varying language levels selected from three high schools
in Ontario, Canada. These students were given a French achievement test at the onset of their summer vacation and again at their return to school in the fall. The researchers reported a significant gain in listening comprehension and also a significant loss in reading comprehension. The second study involved 150 subjects, all of whom were enrolled as students at a high school in Canada in grades nine through eleven. One group of these subjects was tested at the beginning of summer vacation and again at the end, the time lapse totaling a three month period without stimulation in the language. The second group was tested at the beginning of the vacation and then again after the fall semester. The lapse in language instruction in this group totaled eight months. The researchers reportedly found that the students in the first group (those with a three-month lapse in formal instruction) showed improved performance. The second group (those with an eight-month lapse in formal instruction) showed a poor performance on the second administration of the Canadian Achievement Test in French.

All of the studies reviewed above relied on discrete item tests and the results were not specified in terms of particular linguistic elements: they all used very general indications of a loss or gain in ability or performance. The skills were also very broadly defined (i.e. listening comprehension, speaking ability) making it difficult to compare the results of the studies to determine whether
or not a pattern of attrition exists.

Cohen (1974) attempted to measure differences in the error rates of specific linguistic elements. His subjects were kindergarten children enrolled in the Culver City Spanish program. These children were native English speakers who were instructed exclusively in Spanish their entire kindergarten year. A loss of Spanish skills resulted from the three-month summer vacation. The type of loss was measured by comparing the subjects' performance on the Oral Language Achievement Measure. Cohen found that the subjects continued to have problems with article adjective agreement, the usage of prepositions was less frequent, when in doubt, ser was used rather than estar, and the subjects' utterances became shorter. In a follow-up study, conducted again by Cohen (1976), the utterances of three kindergarten/first graders, enrolled in the Spanish Immersion program were analyzed. The subjects were given the Oral Language Achievement Measure in order to elicit speech samples. Cohen found that after the summer vacation, utterance length fell from an average of 5.2 words to an average of 3.7. The overall error rate of the subjects increased from 20% to 24%. There was a loss in the following areas: errors in person inflection, confusion of use in ser/estar, misuse of definite and indefinite articles, and problems with adjective agreement. From this study, Cohen hypothesized that young language learners who are involved in an immer-
sion-type program do the following:

1) Lose first those structures that were learned last.
2) Unlearn linguistic patterns in reverse order.
3) Return to personal hypotheses of the target language used at an earlier stage.
4) Try out new hypotheses based on their new, reduced concept of the language.
5) Make fewer errors in some areas of language production due to their unwillingness to try more complicated strategies.

Of particular interest to this study are his first and second hypotheses, stating that the language learners involved in an immersion type program lose first those structures that were learned last. This hypothesis was first proposed by Ribot in the 1880's. The rule of Ribot claims that language loss is a regression and that the most recently acquired features are the ones that will most likely be lost first. Pitres (1895) countered that it was the best-learned forms, not necessarily the oldest forms learned that would be the least vulnerable to language loss. If the rule of Ribot is correct, then, in order to determine a pattern of loss, the pattern of acquisition must be taken into consideration.

Bautier-Castaing's (1977) study tested the acquisition of French as a first language and as a second language, using 60 French natives between the ages of 4-5 and 7-8 and children who had been in the French speaking environment in an acquisition situation for nine months. The test that was administered to these two groups was a collection of questions based on a set of pictures shown to the subjects.
Bautier-Castaing found that those children who were learning French as a second language had acquired the following elements after the nine months they had spent in the country:

1. Word order in a simple sentence
2. The article system (definite vs. indefinite)
3. Conjugation of: present tense of regular verbs, present singular of irregular verbs, the passé composté
4. The infinitive complement

The following elements were determined to be "non-acquired" due to the number of errors made on these elements:

1. Direct object pronoun
2. Indirect object pronoun
3. The contraction of articles after the prepositions à and de
4. Use of prepositions, especially before an infinitive.
5. Gender
6. The conjugation of irregular verbs in present plural
7. The use of the subject pronoun for gender agreement
8. Indication of possession by use of de

The purpose of the current study is to test a group of missionaries returned from French-speaking countries, analyze the results, and determine whether or not there is a general pattern in the attrition of their language abilities. These missionaries have all acquired their knowledge of the French language under similar circumstances. All of them spent two months learning the language before they were sent to the country in which they would serve. Upon their arrival in the foreign country, they were immersed in the culture until their return to the United States. Since the subjects learned their language under very similar
circumstances, it is quite possible that the order of acquisition would be similar in all subjects. If the order of acquisition is similar, then the order of attrition would, according to Ribot, be similar also, following the reverse order of acquisition. This study will attempt to show that although individual variations exist among the subjects, a general pattern of language loss is evident.

Drawing from Bautier-Castaing's research and observations from various French instructors, a list of language forms was compiled. This list represents those forms which will be analyzed for attrition. The list is as follows:

1. Gender
2. Prepositions
3. Direct and Indirect Objects
4. Contractions of à and ãé
5. Verb tenses
6. Definite and indefinite articles
7. Negations
8. Agreement
Chapter III

METHODS

Subjects

Twenty-five former missionaries to French-speaking countries were selected as subjects. There were five returned missionaries representing each of the years 1984, 1983, 1982, 1981 and 1980. The period of time since their return varied from four months to five years. Approximately two hundred potential subjects were sent letters explaining the study and indicating that the individual would be receiving a telephone call to inquire whether or not he would be willing to participate in the study. From those contacted, twenty-five subjects were selected. There was much less opportunity for selection than had been previously anticipated. Many potential subjects had moved and left no forwarding address, and a good percentage of the remaining subjects had continued their studies after returning from their mission, working toward a minor in French. The subjects selected were all male and all students at Brigham Young University, having little or no formal instruction in the language since their return. The maximum number of college courses the subject could have and still be considered as one having minimal exposure to the language, was two.
This number was decided upon due to the scarcity of subjects having less coursework. A questionnaire (Appendix B) was completed by each of the subjects to obtain information concerning his language experiences before and after his mission and also a self-report of language proficiency at the end of his mission. Information about each subject is summarized in Appendix C. The subjects were matched in ability and motivational and attitudinal characteristics as much as possible on the basis of their responses to the questionnaire. There was one characteristic that was impossible to match in all of the groups. The missionaries in the 1980 and 1981 groups served a two year mission and the missionaries in the 1982, 1983 and 1984 groups served only eighteen months. The position taken with respect to this variable was that the missionaries' abilities would be nonetheless very nearly the same. One question on the questionnaire was designed to determine the subjects' general attitude toward the culture and people he dealt with while serving his mission. This question was included primarily to determine whether all subjects would express a similar attitude. If the responses varied widely, this would become another variable in the study. All twenty-five subjects expressed a similar opinion of the culture and the people they served, that being a strong affection, so attitude will not be considered a variable.
Procedures

An oral and written test were administered to the subjects to measure their language proficiency. The interviewer, a native English-speaker, proficient in French, met each subject in a small interpretation booth at Brigham Young University. Each subject was initially greeted in English, but after the greeting, the language of the interview was switched to French as the subject's mission and background were discussed. This discussion provided time for the subject to "warm-up" if necessary and made him feel more comfortable with the interviewer. The remainder of the interview, including instructions and casual comments, was conducted in French. First the oral interview and then the written test was administered. The oral interview/test, consisted of seven individual tasks which were as follows:

A. Storytelling/Retelling Task: The subjects were read a French version of the Cinderella story while viewing nineteen pictures which illustrated the story. The story was told in the passé simple, the usual tense for storytelling. Most missionaries cannot produce this tense, but understand it readily. The purpose for using this tense was to avoid the possibility of reteaching or even reviewing the situations in which the passé composé and the imparfait tenses are used. After the interviewer told the story, the subject was asked to retell the story using the pictures as visual aids. Inasmuch as this interview was testing for grammar concepts rather than vocabulary retention, the subjects were given vocabulary words upon request.

B. The Joseph Smith Story: All of the subjects, as missionaries, were required to memorize the Joseph Smith story. This task was utilized to balance the difference, if one existed, in gram-
matical accuracy when dealing with a very familiar subject as opposed to an unfamiliar subject as in the first task. Although the Joseph Smith story was once memorized, none of the subjects could tell the story from memory. Each of the subjects used at least one memorized phrase from the learned story, but told the rest of the story in his own words.

C. The Doctrine of Salvation: The subjects were asked to explain this principle to the interviewer. This task differed from the task previously presented in that the Joseph Smith story involved telling a story with definite events and a time-frame and the explanation of the Doctrine of Salvation was far more abstract. Again, the subjects were allowed to talk for as long as or as little as they wished. If the request was misunderstood, the subject was allowed to continue speaking on the subject he understood to be the one in question.

D. A Mission Experience: All missionaries have their favorite mission experiences. The intention behind asking each subject to recount one of his favorites was to get the subject involved in the excitement of his story. With the emphasis placed on what he was saying, rather than how he was saying it, it was hoped that self-correction would be kept to a minimum.

The next three tasks were all storytelling tasks. The subject was given a group of pictures and asked to tell a story about them. Several of the more verbose subjects were not able to complete these tasks due to time constraints. The average length of time required for the interview, written test and questionnaire, was one hour. Some of the subjects who spent more time on oral tasks A-D were unable to stay beyond the hour already used to complete the oral interview.

E. The Markets: The first storytelling task illustration consisted of two pictures. The first picture was an outdoor market which was a very familiar memory of the missionaries' shopping
experiences while serving their missions. The second picture was the interior of a small store. These pictures were selected because of the everyday subject matter with which the missionaries would be familiar. Most of the subjects did not tell a story, but simply described these two pictures.

F. The Picnic: The second set of pictures portrayed a boy and a girl preparing for and going on a picnic. Again, this picture was chosen due to the familiarity of the vocabulary and the situation. Most of the subjects gave only the necessary facts of the story and made no attempt to make the story interesting or colorful.

G. A City Street: The third set of pictures was a situation which takes place on a rainy day in the city. The situation again was very familiar but the vocabulary was far more difficult than in either of the other pictures. As in the other two storytelling tasks, little effort was made by most subjects to add color or interest to the story. The story was recounted by explaining only the most necessary details.

The written test administered was a vocabulary test of ninety-nine items. (Appendix A) The test was originally intended to have one hundred items, but an error was made in the numbering of these items so there were only ninety-nine questions. Half of the words used on this vocabulary test were from *Le Français Fondamental 1er Degré* and the other half were from the *2e Degré*. These words are among the first learned by students studying the French language. The test had three parts. The first part consisted of thirty-three multiple choice questions in French. The subject was given four choices and asked to select the most appropriate French word to complete the sentence. The questions in the second part were also multiple choice oriented. A sentence in French containing an underlined
word was given and below it were four English words. The subjects were to select the best translation for the underlined word. The final, and by far the most difficult section of the test was the third part. In this portion of the test, the subjects were given a French sentence with the vocabulary word missing. The English equivalent was given and the subject was asked to produce the French word. Overall, the test contained forty-nine words from the Premier Degré and fifty words from the Deuxième Degré. The ninety-nine words tested comprised the following percentages: forty-six percent of the words used were nouns, twenty-three percent were verbs, seventeen were grammatical words, seven were adjectives and six were adverbs. These percentages were taken from Gougenheim (1964).

The vocabulary tests were graded and analyzed at the Testing Center at Brigham Young University. Reliability of the test was established by using the Kuder-Richardson 20 formula, as the exam consisted of two different levels of difficulty: level one and level two of le Francais Fondamental. The reliability of the test was determined to be .9143.

Inasmuch as there are no evaluations of the returned missionaries' oral proficiency at the time of his release, group one (the group that completed their missions in 1984) was used for baseline data purposes. They were given the oral tests and, based on the results of those tests, an
estimate of the average degree of proficiency was made. Judgments of loss of skills for the other groups will be based on the assumption that their proficiency in French was similar to that of the control group before attrition began.

The areas of language proficiency that will be scrutinized will be the following:

1) Oral proficiency of the eight language elements listed above.
2) Length of utterances as determined by frequency counts of word types used.
3) Command of Vocabulary

The judgment of how much language and which elements in the language have been lost will be based on the above evaluation procedures.
Chapter IV

RESULTS AND DISCUSSION

Vocabulary

The total scores on the vocabulary test were averaged according to groups of subjects (Table 1). A continuous downward trend in scores is evident as the number of years the missionaries have been returned increases.

Table 1
Average Scores on Vocabulary Test
(Out of 99 questions)

<table>
<thead>
<tr>
<th>Year</th>
<th>Score</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1984</td>
<td>82.8</td>
<td>83%</td>
</tr>
<tr>
<td>1983</td>
<td>80.8</td>
<td>81%</td>
</tr>
<tr>
<td>1982</td>
<td>77.2</td>
<td>78%</td>
</tr>
<tr>
<td>1981</td>
<td>74.4</td>
<td>75%</td>
</tr>
<tr>
<td>1980</td>
<td>61.8</td>
<td>62%</td>
</tr>
</tbody>
</table>

The scores of each of the groups with respect to the productive portion of the vocabulary test (the last 33 questions) were also averaged and a pattern similar to that of the total scores manifested itself (Table 2). The 1984 group attained the highest average and the average dropped as the number of years the subjects had been away from the
stimulation increased.

Table 2
Average Scores in Productive Portion of Vocabulary Test
(Out of 33 Questions)

<table>
<thead>
<tr>
<th>Year</th>
<th>Score</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1984</td>
<td>23.2</td>
<td>70%</td>
</tr>
<tr>
<td>1983</td>
<td>21.8</td>
<td>66%</td>
</tr>
<tr>
<td>1982</td>
<td>18.0</td>
<td>55%</td>
</tr>
<tr>
<td>1981</td>
<td>17.0</td>
<td>52%</td>
</tr>
<tr>
<td>1980</td>
<td>12.0</td>
<td>36%</td>
</tr>
</tbody>
</table>

The results indicate that a definite relationship exists between the length of time the subject has been returned from his mission and how well he performs on a vocabulary test composed of words for common, everyday objects and ideas. The results also show that more attrition occurs in recall vocabulary than in recognition vocabulary (Tables 2 and 3). The drop from the 1984 group to the 1980 group in the recognition vocabulary is 13 percentage points, whereas there was a drop of 34 percentage points in recall vocabulary from the 1984 group to 1980 group. This supports the finding of Bahrick's (1984) study that attrition is more likely to occur in recall vocabulary than in recognition vocabulary.
Table 3
Average Scores in Recognition Portion of Vocabulary Test
(Out of 66 Questions)

<table>
<thead>
<tr>
<th>Year</th>
<th>Score</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1984</td>
<td>59</td>
<td>89%</td>
</tr>
<tr>
<td>1983</td>
<td>59</td>
<td>89%</td>
</tr>
<tr>
<td>1982</td>
<td>59</td>
<td>89%</td>
</tr>
<tr>
<td>1981</td>
<td>57</td>
<td>86%</td>
</tr>
<tr>
<td>1980</td>
<td>50</td>
<td>76%</td>
</tr>
</tbody>
</table>

According to Goodglass et al. (1966), the first area of language that is lost by aphasics is vocabulary. Although it cannot be assumed that second language attrition in a healthy individual parallels that of language loss in a brain-damaged individual, it is interesting to compare the similarities and differences between aphasic loss and the losses of the subjects of this study reflected the vocabulary test. Nouns are more susceptible than verbs and infrequent words more susceptible than frequent words in vocabulary loss of aphasics. Words with concrete referents are said to be less susceptible to loss than words with abstract referents. In order to determine whether or not the attrition of these subjects followed the tendencies of aphasics as discussed above, the correct responses of each group were converted into percentages (Table 4). As
seen in each group, nouns, verbs, concrete and abstract referents, there is a steady downward progression from year to year. The entire vocabulary test utilized words frequently heard and used on a daily basis, so these words should not be as susceptible to loss as less frequent words which were not included in the test.

Table 4
Types of Errors on Vocabulary Test

<table>
<thead>
<tr>
<th></th>
<th>Noun</th>
<th>Verb</th>
<th>Concrete</th>
<th>Abstract</th>
</tr>
</thead>
<tbody>
<tr>
<td>1984</td>
<td>84%</td>
<td>78%</td>
<td>85%</td>
<td>84%</td>
</tr>
<tr>
<td>1983</td>
<td>80%</td>
<td>75%</td>
<td>85%</td>
<td>82%</td>
</tr>
<tr>
<td>1982</td>
<td>69%</td>
<td>66%</td>
<td>82%</td>
<td>73%</td>
</tr>
<tr>
<td>1981</td>
<td>69%</td>
<td>66%</td>
<td>82%</td>
<td>69%</td>
</tr>
<tr>
<td>1980</td>
<td>62%</td>
<td>55%</td>
<td>69%</td>
<td>59%</td>
</tr>
</tbody>
</table>

As previously stated, nouns are more susceptible to loss in aphasics than are verbs. It is interesting to compare the noun and the verb categories in the table: the results of this study indicate that the change in percentage of verbs lost, from 78% in 1984 to 55% in 1980, was one percentage point higher than the change in percentage of nouns lost in each group, from 84% in 1984 to 62% in 1980, which shows that both are lost at about the same rate, thus not
following the pattern of loss in aphasics.

More definitive results are found when considering the concept of abstract versus concrete referents. Aphasics do not lose as readily words with concrete referents, however the subjects in this study seemed to lose concrete referents more readily than abstract referents. The 1984 group started with a figure of 85% correct in abstract referents and dropped to 69% correct in the 1980 group. This is a 16 percentage point difference. The 1984 group started with a figure of 84% correct with regard to concrete referents and it dropped to a low of 59% in the 1980 group. This represents a 25 percentage point difference. The results show that in this study, the subjects lost fewer words with abstract referents than words with concrete referents which is the opposite of the pattern found in aphasics. These findings must be interpreted with caution since no tests for significance were performed due to the small number of subjects involved. A possible explanation for the retention of abstract referents could be based upon the fact that the subjects participating in this study were missionaries. The reason they learned French was in order to teach religion. Most of the teaching these subjects did was in abstract terms whereas most other language learners have a greater emphasis on concrete referents. Or, a more plausible explanation for this difference is that in the French language, there are many more cognates
for abstract words than there are for concrete words. Thus, it would be easier for the subjects to recall abstract terms in French because there is a relationship between the French word and the corresponding word in English. These differences could, in brief, be due to the manner in which the language was learned and used and thus only applicable to returned missionaries, or they could be due to the influence of cognates and thus only applicable to the French language or, lastly, they could be due to intrinsic differences in the processes of loss in aphasics and in healthy language learners. Whatever the cause, these differences represent an area that merits further exploration.

General Analyses

The assistance of two native French speakers was enlisted to judge the subjects' pronunciation and grammar. The individuals selected were French instructors at Brigham Young University. Both had been trained by the French Department to grade oral tests by the same criteria. Neither of the judges had any background in linguistics so the judgments were based on general impressions rather than a formal linguistic analysis. The judges listened to each tape for two minutes and then gave a score from a scale from 1 to 5, 5 being native speech and 1 being unintelligible speech (Table 5). A brief explanation of the study was
given to the judges, informing them of the five different groups involved. The judges were not told the name or the year of the return of the speaker. The tapes were indiscriminately placed in a bag and the playing order of these tapes was determined only by the order in which they were removed from the bag. The labels of the tapes had no information that would give the judges an idea of the subject's proficiency.

There appears to be no clear pattern in either the pronunciation averages or the grammar averages.

Table 5
Average of Native Judgements of Language Proficiency

<table>
<thead>
<tr>
<th></th>
<th>Pronunciation</th>
<th>Grammar</th>
</tr>
</thead>
<tbody>
<tr>
<td>1984</td>
<td>3.3</td>
<td>3.0</td>
</tr>
<tr>
<td>1983</td>
<td>2.6</td>
<td>2.6</td>
</tr>
<tr>
<td>1982</td>
<td>3.0</td>
<td>2.7</td>
</tr>
<tr>
<td>1981</td>
<td>2.4</td>
<td>2.9</td>
</tr>
<tr>
<td>1980</td>
<td>3.0</td>
<td>2.0</td>
</tr>
</tbody>
</table>

The judges were in 92% agreement on the pronunciation scoring and 96% agreement on the scoring of grammar. The differences between the two judges' scores only exceeded 0.5 one time. In this particular case, one judge assigned a 5 on pronunciation indicating that the subject's pronun-
The pronunciation was comparable to that of a native speaker. The second judge did not feel that a nonnative speaker could attain native pronunciation and scored the speaker as a 4, while indicating that the subject's pronunciation was outstanding for a nonnative speaker.

The judges were then asked to determine a global score for each of the subjects. The judges, in this case, were in 88% agreement on the scores. The averages of the judges' scores are found in Table 6. Surprisingly, despite the lack of patterns in scores in pronunciation and grammar, a very definite pattern was found in these global scores.

The 1984 group scored by far the highest, with its average score of 3.45. It was .65 points higher than the 1983 group. The other years followed a downward progression, but the differences in scores were not nearly as remarkable. The differences between the other four groups range from .15 to .20. There are at least two possible conclusions that can be drawn from these results. First, with regard to the greater decline in score from the 1984 group to the 1983 group, it could be said that the loss which took place in the first year of the missionaries' return was not so much a loss in grammar concepts, or even vocabulary, as much as a loss in idioms and in the ability to express thoughts in the manner in which a French person would express them. This would account for the larger difference between the two groups.

The second conclusion that could be drawn from these results is that the loss which took place from the 1983 group to the 1984 group was not nearly as great as it might appear from the disparity in scores. The judges, in this case, were in 88% agreement on the scores.
from this set of data concerns the reasons why the natives' judgment of pronunciation and grammar indicate no pattern of attrition but yet the global judgement indicates that a very strong pattern of attrition exists. The greatest loss could be occurring in the area of sentence complexity which was not examined at all in this study. If this were the case, it would explain why many of the subjects did well in the analyses of specific language forms, showing little or no attrition but were judged to be far less proficient in the language by the native judges than the results of the analyses indicated.

Table 6

Average of Native Judgments of Global Proficiency

<table>
<thead>
<tr>
<th>Year</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1984</td>
<td>3.45</td>
</tr>
<tr>
<td>1983</td>
<td>2.80</td>
</tr>
<tr>
<td>1982</td>
<td>2.65</td>
</tr>
<tr>
<td>1981</td>
<td>2.45</td>
</tr>
<tr>
<td>1980</td>
<td>2.30</td>
</tr>
</tbody>
</table>

The average number of words per minute by group did not show a pattern either, although the 1984 group had the highest number of words per minute and the 1980 group had the lowest (Table 7). Speed of speech can vary due to knowledge of the language, but it can also vary according to the personality of the speaker. This study included
subjects who had a tendency to choose their words carefully in both English and French and subjects who had very engaging personalities whose grammar was very poor, but drew attention away from their grammar by adding color to the things they were recounting. Each group seemed to have a mix of personalities and speech styles that would balance when the speaking scores were averaged.

Table 7
Average Speaking Speed
Words per Minute

<table>
<thead>
<tr>
<th>Year</th>
<th>Speed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1984</td>
<td>111.4</td>
</tr>
<tr>
<td>1983</td>
<td>83.0</td>
</tr>
<tr>
<td>1982</td>
<td>96.6</td>
</tr>
<tr>
<td>1981</td>
<td>99.0</td>
</tr>
<tr>
<td>1980</td>
<td>73.8</td>
</tr>
</tbody>
</table>

The number of words used by each subject to complete the required tasks varied widely from individual to individual due to their individual personalities. However, when these numbers were averaged by years, another definite pattern appeared. As the number of years passed since their return, the subjects' verbosity decreased markedly (Table 8).
Table 8
Total Words in Interview

<table>
<thead>
<tr>
<th></th>
<th># Words</th>
<th># Unique</th>
<th># Repetitions</th>
<th># Errors</th>
</tr>
</thead>
<tbody>
<tr>
<td>1984</td>
<td>3110</td>
<td>636</td>
<td>395</td>
<td>188</td>
</tr>
<tr>
<td>1983</td>
<td>2774</td>
<td>583</td>
<td>276</td>
<td>152</td>
</tr>
<tr>
<td>1982</td>
<td>2454</td>
<td>558</td>
<td>215</td>
<td>150</td>
</tr>
<tr>
<td>1981</td>
<td>2245</td>
<td>500</td>
<td>252</td>
<td>124</td>
</tr>
<tr>
<td>1980</td>
<td>2109</td>
<td>507</td>
<td>239</td>
<td>202</td>
</tr>
</tbody>
</table>

The number of unique words also decreased by year with the exception of the 1980 group where it rose very slightly over the 1981 figure. As also indicated in the table, a pattern does not seem to exist with regard to the number of words repeated, or the total number of errors perceived. Another interesting pattern that exists was found when determining the number of words per error. Again, the subjects' performance has worsened with the passage of time and lack of stimulation in the language (Table 9). The 1981 subjects did exceptionally well and do not follow the pattern of a decreasing number of words per error as the years pass. In this study, the errors that were counted were only those that were left uncorrected by the subjects. Errors that were corrected were counted as correct usages even if a number of other incorrect forms were produced.
in the process.

Table 9
Average Number of Words per Error

<table>
<thead>
<tr>
<th>Year</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>1984</td>
<td>18.52</td>
</tr>
<tr>
<td>1983</td>
<td>18.41</td>
</tr>
<tr>
<td>1982</td>
<td>17.66</td>
</tr>
<tr>
<td>1981</td>
<td>24.00</td>
</tr>
<tr>
<td>1980</td>
<td>11.08</td>
</tr>
</tbody>
</table>

Therefore, the 1981 group could either be less error prone than the other groups, or they could simply be more adept at self-correction.

Specific Language Forms

After the analyses of the general aspects of the data, specific language forms were analyzed. When feasible, each form received two types of analysis. The first was the comparison of the number of correct usages to the number of incorrect usages. This analysis will be reported in terms of percentage of correct usages. The second type of analysis deals only with errors and the results of this analysis will be reported as the percentage that each type of error represents as compared with other errors in the same specific language form.

A simple average of the number of verbs used by each
group shows a decrease in this amount as the number of years without language stimulation increases (Table 10).

Table 10
Average Number of Verbs

<table>
<thead>
<tr>
<th>Year</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1984</td>
<td>579</td>
</tr>
<tr>
<td>1983</td>
<td>515</td>
</tr>
<tr>
<td>1982</td>
<td>469</td>
</tr>
<tr>
<td>1981</td>
<td>457</td>
</tr>
<tr>
<td>1980</td>
<td>370</td>
</tr>
</tbody>
</table>

The difference in number of verbs between the 1984 group and the 1980 group is a decrease of a little over two hundred verbs. At first glance, this seems to be an interesting finding, but as the total number of verbs decrease with each year, so does the total number of words for each group as has been previously mentioned. The percentage of verbs per total number of words remains constant at 20% for the years 1984-1980. Although the subjects spoke less as the years pass, the same percentage of verbs was retained in their utterances. Perhaps this indicates that the percentage of verbs used is not affected early on by attrition. The analysis of correct usages vs. incorrect usages and the analysis of percentages of errors did not yield any definitive pattern (Table 11).
There seems to be great variation among individuals as to the tenses that were used. It was expected that, as the years progressed, the more difficult tenses (imperfect, conditional, future and subjunctive) would show a decrease in usage. The only tense that followed this pattern was the subjunctive. In 1984, 1983 and 1982, the subjunctive accounted for 0.3% of the verb usage but this usage decreased in the 1981 group to 0.17% and completely disappeared by 1980. The usage of the rest of the aforementioned tenses varied widely, increasing one year, decreasing the next and then increasing again the following year. Perhaps the use of the subjunctive decreases more than the other tenses mentioned because it is not as widely used and understood in the English language.

Table 11
Average Percentage of Correct Verb Usage

<table>
<thead>
<tr>
<th>Year</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1984</td>
<td>94%</td>
</tr>
<tr>
<td>1983</td>
<td>94%</td>
</tr>
<tr>
<td>1982</td>
<td>93%</td>
</tr>
<tr>
<td>1981</td>
<td>95%</td>
</tr>
<tr>
<td>1980</td>
<td>89%</td>
</tr>
</tbody>
</table>
Table 11
Percentage of Correct Verb Usage by Tense

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1984</td>
<td>97%</td>
<td>97%</td>
<td>93%</td>
<td>54%</td>
<td>86%</td>
<td>70%</td>
<td>83%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>1983</td>
<td>97%</td>
<td>97%</td>
<td>95%</td>
<td>45%</td>
<td>89%</td>
<td>88%</td>
<td>88%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>1982</td>
<td>97%</td>
<td>98%</td>
<td>92%</td>
<td>97%</td>
<td>82%</td>
<td>84%</td>
<td>90%</td>
<td>100%</td>
<td></td>
</tr>
<tr>
<td>1981</td>
<td>99%</td>
<td>96%</td>
<td>96%</td>
<td>38%</td>
<td>93%</td>
<td>50%</td>
<td>73%</td>
<td>67%</td>
<td></td>
</tr>
<tr>
<td>1980</td>
<td>95%</td>
<td>94%</td>
<td>81%</td>
<td>80%</td>
<td>79%</td>
<td>44%</td>
<td>0</td>
<td>75%</td>
<td></td>
</tr>
</tbody>
</table>

Percentage of Errors in Verb Usage

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1984</td>
<td>14%</td>
<td>45%</td>
<td>21%</td>
<td>0.9%</td>
<td>17%</td>
<td>0.5%</td>
<td>0.3%</td>
<td>1.1%</td>
<td></td>
</tr>
<tr>
<td>1983</td>
<td>15%</td>
<td>45%</td>
<td>21%</td>
<td>0.9%</td>
<td>17%</td>
<td>0.9%</td>
<td>0.3%</td>
<td>0.5%</td>
<td></td>
</tr>
<tr>
<td>1982</td>
<td>16%</td>
<td>44%</td>
<td>17%</td>
<td>1.0%</td>
<td>19%</td>
<td>1.5%</td>
<td>0.3%</td>
<td>1.8%</td>
<td></td>
</tr>
<tr>
<td>1981</td>
<td>14%</td>
<td>47%</td>
<td>19%</td>
<td>0.6%</td>
<td>18%</td>
<td>0.5%</td>
<td>0.17%</td>
<td>0.9%</td>
<td></td>
</tr>
<tr>
<td>1980</td>
<td>14%</td>
<td>48%</td>
<td>17%</td>
<td>0.8%</td>
<td>19%</td>
<td>0.9%</td>
<td>0</td>
<td>0.6%</td>
<td></td>
</tr>
</tbody>
</table>

As seen in Table 12, the analysis of correct usages of gender produced percentages without a particular pattern, but the percentage of errors brought to light some very interesting results. In the 1984 group, the majority of
the errors are errors in which the subjects used the masculine gender when the feminine should have been used: masculine = 74%, feminine = 26%. In the years 1981 and 1980 however, the percentage of errors had leveled off to approximately 50% errors in the masculine gender and 50% in the feminine gender. This shows that the subjects initially generalize those genders they do not know as masculine, but as they lose their confidence in the language, they no longer generalized so the errors in both genders are nearly equal.

Although no formal study can be cited here, several native French speakers were asked how they would determine the gender of a word if the word was unknown to them and if the word had no markers that indicated its gender. All of those questioned responded that in those circumstances they would assign the masculine gender to the word until they found the correct gender. If this occurs with all native French speakers, this theory can be applied to the results of this study. The 1984 group, having just returned from the French-speaking environment would be more likely to react as native French speakers when faced with a word and attempting to assign the gender. As the years widen the distance between the returned missionary and his French language experiences, the tendency to react as a native speaker is lost and the speaker indiscriminately assigns masculine and feminine according to his ear, which, at this point, is sadly inaccurate.
Table 12
Correct Gender Usage

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1984</td>
<td>87%</td>
<td>63%</td>
</tr>
<tr>
<td>1983</td>
<td>92%</td>
<td>70%</td>
</tr>
<tr>
<td>1982</td>
<td>84%</td>
<td>63%</td>
</tr>
<tr>
<td>1981</td>
<td>68%</td>
<td>80%</td>
</tr>
<tr>
<td>1980</td>
<td>79%</td>
<td>71%</td>
</tr>
</tbody>
</table>

Percentage of Errors in Gender Usage

<table>
<thead>
<tr>
<th></th>
<th>M</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>1984</td>
<td>74%</td>
<td>26%</td>
</tr>
<tr>
<td>1983</td>
<td>80%</td>
<td>20%</td>
</tr>
<tr>
<td>1982</td>
<td>71%</td>
<td>29%</td>
</tr>
<tr>
<td>1981</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td>1980</td>
<td>58%</td>
<td>42%</td>
</tr>
</tbody>
</table>

This practice of the older returned missionaries would lead to the even distribution between masculine and feminine in 1981 and 1980.

Again, in the category of articles, the analysis of correct usages rendered percentages without a definitive
pattern. The percentages of errors were also without interesting results (Table 13).

Table 13
Correct Article Usage

<table>
<thead>
<tr>
<th></th>
<th>Definite</th>
<th>Indefinite</th>
<th>Partitive</th>
</tr>
</thead>
<tbody>
<tr>
<td>1984</td>
<td>98%</td>
<td>96%</td>
<td>84%</td>
</tr>
<tr>
<td>1983</td>
<td>98%</td>
<td>97%</td>
<td>78%</td>
</tr>
<tr>
<td>1982</td>
<td>97%</td>
<td>96%</td>
<td>79%</td>
</tr>
<tr>
<td>1981</td>
<td>98%</td>
<td>98%</td>
<td>61%</td>
</tr>
<tr>
<td>1980</td>
<td>98%</td>
<td>96%</td>
<td>85%</td>
</tr>
</tbody>
</table>

Percentage of Errors in Article Usage

<table>
<thead>
<tr>
<th></th>
<th>Def.</th>
<th>Indef.</th>
<th>Part.</th>
<th>Not Permitted</th>
<th>Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>1984</td>
<td>26%</td>
<td>23%</td>
<td>38%</td>
<td>1%</td>
<td>12%</td>
</tr>
<tr>
<td>1983</td>
<td>25%</td>
<td>16%</td>
<td>48%</td>
<td>5%</td>
<td>6%</td>
</tr>
<tr>
<td>1982</td>
<td>28%</td>
<td>16%</td>
<td>42%</td>
<td>0</td>
<td>14%</td>
</tr>
<tr>
<td>1981</td>
<td>25%</td>
<td>10%</td>
<td>39%</td>
<td>14%</td>
<td>16%</td>
</tr>
<tr>
<td>1980</td>
<td>21%</td>
<td>20%</td>
<td>29%</td>
<td>16%</td>
<td>16%</td>
</tr>
</tbody>
</table>

In one category of articles however, there exists an interesting
progression of percentages. In French, as in other Romance languages, when speaking of a general characteristic, one uses an article. In English the idea would be expressed "Patience is a virtue," but in the corresponding French expression, a definite article is used: "La patience est une vertue." It becomes confusing at times for a native English speaker to determine when to use the article and when not to use the article. It was found that the subjects returned in 1980 had a higher percentage of usage of articles (16%) when they were not permitted than did the 1984 subjects (1%), thus showing an increase in their uncertainty.

When teaching native English speakers French, the direct object does not seem to pose much of a problem, but the indirect object seems to baffle many students. According to Bautier-Castaing (1977), pronominal direct objects are acquired before pronominal indirect objects in the acquisition of French as a first language. In the same study, she explored the acquisition of French as a second language. This study showed that after nine months, children aged 4-6 years were using the pronominal direct object, not always correctly, but they were using it nonetheless. The pronominal indirect object had not yet made an appearance. For children aged 7-8, command of the pronominal direct object had improved, but there were still no instances of the pronominal indirect object being used. In the results of the error analysis, this difficulty was manifested in
the subjects who had returned in 1984 (Table 14). The subjects made many more errors in the usage of indirect objects. As the results of the other years are perused, it will be noticed that the percentage of indirect object errors start to balance out and settle near the 50% mark, showing that the subjects are beginning to have more difficulty with direct objects than they had initially.

Although there is only one definite downward trend to be found among the percentages of correct usages of direct and indirect objects, it is found that the 1980 group scored lower than the 1984 group with the exception of only one category: *les*. The percentages of the 1984 and 1980 groups within this category were very close. After examining the results of the Bautier-Castaing study, a possible explanation for the data collected would be that the 1984 group, or any of the groups at their best, were still acquiring indirect objects as illustrated by the table. The percentage correct of those objects which have different forms in indirect and direct objects, *lui* and *leur*, are 76% and 100% respectively. The 1983 group, one year away, shows percentages of 68% and 67% showing that their mastery of this language form has lessened considerably. The percentages of *leur*, the less commonly used of the two, continue to decrease while *lui* stabilizes at 74%. Inasmuch as the subjects were still acquiring the usage of indirect objects when they left the language
environment, it could be that the knowledge they did have about indirect objects was lost before that of the more completely acquired direct objects.

Table 14
Correct Object Usage

<table>
<thead>
<tr>
<th></th>
<th>me</th>
<th>te</th>
<th>le</th>
<th>la</th>
<th>nous</th>
<th>vous</th>
<th>les</th>
</tr>
</thead>
<tbody>
<tr>
<td>1984</td>
<td>100%</td>
<td>100%</td>
<td>94%</td>
<td>78%</td>
<td>100%</td>
<td>100%</td>
<td>73%</td>
</tr>
<tr>
<td>1983</td>
<td>100%</td>
<td>0</td>
<td>94%</td>
<td>81%</td>
<td>100%</td>
<td>0</td>
<td>77%</td>
</tr>
<tr>
<td>1982</td>
<td>0</td>
<td>100%</td>
<td>25%</td>
<td>79%</td>
<td>100%</td>
<td>0</td>
<td>80%</td>
</tr>
<tr>
<td>1981</td>
<td>0</td>
<td>0</td>
<td>60%</td>
<td>86%</td>
<td>100%</td>
<td>0</td>
<td>80%</td>
</tr>
<tr>
<td>1980</td>
<td>0</td>
<td>0</td>
<td>69%</td>
<td>60%</td>
<td>100%</td>
<td>0</td>
<td>75%</td>
</tr>
</tbody>
</table>

Pronominal Indirect Objects

<table>
<thead>
<tr>
<th></th>
<th>me</th>
<th>te</th>
<th>lui</th>
<th>nous</th>
<th>vous</th>
<th>leur</th>
</tr>
</thead>
<tbody>
<tr>
<td>1984</td>
<td>100%</td>
<td>100%</td>
<td>76%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>1983</td>
<td>0</td>
<td>0</td>
<td>68%</td>
<td>100%</td>
<td>0</td>
<td>67%</td>
</tr>
<tr>
<td>1982</td>
<td>0%</td>
<td>100%</td>
<td>79%</td>
<td>89%</td>
<td>100%</td>
<td>80%</td>
</tr>
<tr>
<td>1981</td>
<td>100%</td>
<td>100%</td>
<td>74%</td>
<td>100%</td>
<td>100%</td>
<td>50%</td>
</tr>
<tr>
<td>1980</td>
<td>83%</td>
<td>0%</td>
<td>74%</td>
<td>80%</td>
<td>100%</td>
<td>33%</td>
</tr>
</tbody>
</table>
Prepositions are traditionally difficult for speakers of French as a second language and as seen in Table 15, the subjects of this study were no exception. There were no patterns of loss in the subjects' difficulties; prepositions were simply a difficult form for the subjects to grasp and it appears that none of the groups had really mastered this language form. In Bautier-Castaing's study, she found that many errors were made in the area of prepositions by both the 4-6 year olds and the 7-8 year olds.

Table 15
Correct Prepositional Usage

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1984</td>
<td>87%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1983</td>
<td>89%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1982</td>
<td>8/6%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1981</td>
<td>8/6%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1980</td>
<td>64%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Percentage of Errors in Prepositions
Missing Not Needed Wrong Prep. Wrong Form

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1984</td>
<td>34%</td>
<td>5%</td>
<td>56%</td>
<td>5%</td>
</tr>
<tr>
<td>1983</td>
<td>31%</td>
<td>9%</td>
<td>48%</td>
<td>2%</td>
</tr>
<tr>
<td>1982</td>
<td>37%</td>
<td>12%</td>
<td>46%</td>
<td>5%</td>
</tr>
<tr>
<td>1981</td>
<td>42%</td>
<td>7%</td>
<td>49%</td>
<td>2%</td>
</tr>
<tr>
<td>1980</td>
<td>23%</td>
<td>11%</td>
<td>59%</td>
<td>7%</td>
</tr>
</tbody>
</table>
Another area that was analyzed was that of contractions. Again, there was no definite pattern emerging from the analysis of correct usages, nor was there any pattern in the error percentages as seen in table 16. All groups seem to have performed quite well in the area of contractions.

Table 16
Correct Formation of Contractions

<table>
<thead>
<tr>
<th></th>
<th>à</th>
<th>de</th>
<th>que</th>
<th>si</th>
<th>l'</th>
</tr>
</thead>
<tbody>
<tr>
<td>1984</td>
<td>94%</td>
<td>99%</td>
<td>93%</td>
<td>50%</td>
<td>100%</td>
</tr>
<tr>
<td>1983</td>
<td>100%</td>
<td>99%</td>
<td>95%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>1982</td>
<td>98%</td>
<td>98%</td>
<td>88%</td>
<td>91%</td>
<td>100%</td>
</tr>
<tr>
<td>1981</td>
<td>95%</td>
<td>100%</td>
<td>86%</td>
<td>75%</td>
<td>99%</td>
</tr>
<tr>
<td>1980</td>
<td>89%</td>
<td>95%</td>
<td>88%</td>
<td>83%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Percentage of Errors in Contractions

<table>
<thead>
<tr>
<th></th>
<th>à</th>
<th>de</th>
<th>que</th>
<th>si</th>
<th>l'</th>
</tr>
</thead>
<tbody>
<tr>
<td>1984</td>
<td>22%</td>
<td>17%</td>
<td>57%</td>
<td>4%</td>
<td>0</td>
</tr>
<tr>
<td>1983</td>
<td>0</td>
<td>22%</td>
<td>78%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1982</td>
<td>8%</td>
<td>25%</td>
<td>63%</td>
<td>4%</td>
<td>0</td>
</tr>
<tr>
<td>1981</td>
<td>12%</td>
<td>0</td>
<td>76%</td>
<td>6%</td>
<td>6%</td>
</tr>
<tr>
<td>1980</td>
<td>19%</td>
<td>29%</td>
<td>48%</td>
<td>4%</td>
<td>0</td>
</tr>
</tbody>
</table>
In the analyses of negations, there were no progressions evident, but the difference in usage of the various negations deserve mention (Table 17).

Table 17
Correct Usage of Negations

<table>
<thead>
<tr>
<th></th>
<th>jamais</th>
<th>que personne</th>
<th>rien</th>
<th>plus</th>
<th>aucun</th>
<th>pas</th>
<th>guere</th>
</tr>
</thead>
<tbody>
<tr>
<td>1984</td>
<td>55%</td>
<td>44%</td>
<td>67%</td>
<td>100%</td>
<td>0</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>1983</td>
<td>83%</td>
<td>50%</td>
<td>100%</td>
<td>75%</td>
<td>83%</td>
<td>83%</td>
<td>98%</td>
</tr>
<tr>
<td>1982</td>
<td>75%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>99%</td>
</tr>
<tr>
<td>1981</td>
<td>100%</td>
<td>100%</td>
<td>33%</td>
<td>75%</td>
<td>100%</td>
<td>0</td>
<td>100%</td>
</tr>
<tr>
<td>1980</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>50%</td>
<td>0</td>
<td>50%</td>
</tr>
</tbody>
</table>

Percentage of Errors in Negations

<table>
<thead>
<tr>
<th></th>
<th>jamais</th>
<th>que</th>
<th>personne</th>
<th>rien</th>
<th>plus</th>
<th>aucun</th>
<th>pas</th>
</tr>
</thead>
<tbody>
<tr>
<td>1984</td>
<td>45%</td>
<td>45%</td>
<td>10%</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1983</td>
<td>11%</td>
<td>11%</td>
<td>0</td>
<td>11%</td>
<td>22%</td>
<td>11%</td>
<td>33%</td>
</tr>
<tr>
<td>1982</td>
<td>50%</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>50%</td>
<td>0</td>
</tr>
<tr>
<td>1981</td>
<td>0</td>
<td>0</td>
<td>33%</td>
<td>67%</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1980</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>25%</td>
<td>0</td>
<td>75%</td>
</tr>
</tbody>
</table>
In the 1984 group, as in the 1981 group, six of the eight types of negation were represented. In 1983 and 1982, seven of the eight types of negation were represented but in 1980, only two types of negation were represented. The use of only two types of negation limits the speaker in expressing exactly that which he wishes to and thus reduces the complexity of ideas he can express.

The area of agreement provides an interesting pattern, similar to that found in gender:

Table 18
Percentage of Errors in Agreement

<table>
<thead>
<tr>
<th></th>
<th>Masculine</th>
<th>Feminine</th>
<th>Singular</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>1984</td>
<td>75%</td>
<td>19%</td>
<td>5%</td>
<td>2%</td>
</tr>
<tr>
<td>1983</td>
<td>89%</td>
<td>3%</td>
<td>5%</td>
<td>3%</td>
</tr>
<tr>
<td>1982</td>
<td>75%</td>
<td>15%</td>
<td>9%</td>
<td>2%</td>
</tr>
<tr>
<td>1981</td>
<td>81%</td>
<td>10%</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td>1980</td>
<td>54%</td>
<td>30%</td>
<td>13%</td>
<td>3%</td>
</tr>
</tbody>
</table>

In Table 18, the percentages under masculine indicate that percentage of times that the subject supplied masculine when feminine was required. The same pattern holds true for the rest of the table. The error percentages show a tendency to generalize the masculine gender when in doubt
for the first four years. Suddenly, in the results of the 1980 groups, there appear to be many more errors with feminine agreement. Although conclusions cannot be drawn from this sudden increase in agreement errors with the feminine gender, there is a possibility that agreement is following the pattern of gender, only at a slower rate. Perhaps if the results of a 1979 and 1978 group were available, a balancing progression would be obvious as it was in gender. The subject would start out generalizing masculine and then as the years pass, the number of masculine and feminine usages would balance out.

The next two areas, word choice and English words were analyzed only with respect to percentages of errors as there was no way to determine the correct number of usages. With word choice, there seems to be no clear pattern in the percentages of errors made. All groups seemed to stay within a certain range for each of the error types. The errors were categorized as to the word type: noun, verb, adjective, etc. (Table 19).
Table 19

Percentage of Errors in Word Choice

<table>
<thead>
<tr>
<th>Year</th>
<th>Noun</th>
<th>Verb</th>
<th>Adjective</th>
<th>Adverb</th>
<th>Pronoun</th>
</tr>
</thead>
<tbody>
<tr>
<td>1984</td>
<td>35%</td>
<td>31%</td>
<td>10%</td>
<td>0</td>
<td>24%</td>
</tr>
<tr>
<td>1983</td>
<td>36%</td>
<td>43%</td>
<td>7%</td>
<td>1%</td>
<td>13%</td>
</tr>
<tr>
<td>1982</td>
<td>38%</td>
<td>36%</td>
<td>8%</td>
<td>0</td>
<td>18%</td>
</tr>
<tr>
<td>1981</td>
<td>39%</td>
<td>31%</td>
<td>8%</td>
<td>2%</td>
<td>20%</td>
</tr>
<tr>
<td>1980</td>
<td>49%</td>
<td>36%</td>
<td>6%</td>
<td>1%</td>
<td>8%</td>
</tr>
</tbody>
</table>

The errors made in the category of English words fit into one of three groups (Table 20). The first group is called "Frenchifying," signifying those words that are actually English words but which the subject has in some way altered to make them sound French, in hopes that he will find the correct word. The second group is entitled "English" words. The words included in this group are those that the subject inserted into a French context while making no attempt to hide the fact that it was an English word. "Translation" is the heading for the third group. The English words uttered in a questioning tone of voice or a direct request for a translation were included in this group. While no progression was found in the first group, the translation portion of the table manifests an interesting pattern, especially when compared with the
English portion. As the subjects have been back from their missions a longer period of time, they have a tendency to stop using English words quite as often and to start asking for more translations.

Table 20
Percentage of Errors: English Words

<table>
<thead>
<tr>
<th>Year</th>
<th>Frenchifying</th>
<th>English</th>
<th>Translation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1984</td>
<td>21%</td>
<td>62%</td>
<td>17%</td>
</tr>
<tr>
<td>1983</td>
<td>29%</td>
<td>60%</td>
<td>11%</td>
</tr>
<tr>
<td>1982</td>
<td>43%</td>
<td>39%</td>
<td>17%</td>
</tr>
<tr>
<td>1981</td>
<td>30%</td>
<td>46%</td>
<td>24%</td>
</tr>
<tr>
<td>1980</td>
<td>20%</td>
<td>44%</td>
<td>39%</td>
</tr>
</tbody>
</table>

Perhaps this is an indication that the older subjects have less confidence in their ability to speak or perhaps it denotes a realization of the fact that their language ability is decreasing and a desire to learn from the interview.
Chapter V

CONCLUSIONS AND RECOMMENDATIONS

The purpose of this study was to determine whether or not there was a pattern or loss in the language skills of returned missionaries from French speaking countries in vocabulary and also in the following language forms:

1. Gender
2. Prepositions
3. Contractions
4. Agreement
5. Negations
6. Direct and Indirect Objects
7. Articles
8. Verb Tenses

The results of the vocabulary test showed that there are several definite patterns of loss in this area. The first pattern was a downward progression in the average vocabulary test score. The 1984 group scored the highest and each consecutive group scored lower. The results of the productive portion of the test also showed a very steady downward progression. While comparing attrition in recall and recognition vocabulary, it was found that the results support one of Bahrick's (1984) findings: namely that attrition is more likely to occur in recall vocabulary than in recognition vocabulary. The subjects in this study also lost a greater percentage of words with concrete referents than words with abstract referents. This is opposite of
the tendency in aphasics to lose more readily words with abstract referents.

In the examination of gender, only one pattern existed. In the analysis of errors, it was found that masculine gender was used far more frequently in the recently returned missionaries' speech. The longer the missionary had been home, the less masculine generalization occurred.

In prepositions, as in contractions and agreement, no definite pattern emerged from the analysis of correct usages, nor was there any apparent pattern in the percentages of error. With respect to prepositions, the best possible explanation for the absence of a pattern of attrition was that prepositions were probably not acquired in the first place. With each of the subjects still experimenting with the uses and forms of prepositions, it is not too surprising that a pattern is not in evidence. With contractions, the inverse is very likely true. Contractions are learned at an early stage in French grammar and are practiced frequently. The data show that the contractions are for the most part acquired. Inasmuch as the contractions are so well known, it is quite possible that they will be one of the later forms to suffer attrition. As mentioned in the last chapter, the data for agreement did not show a pattern but it is possible that agreement will eventually follow the pattern that gender manifested. The 1980 group provided interesting results in the area of negations.
The four other groups (1984, 1983, 1982 and 1981) used six or seven of the eight negations, but the 1980 group used only two forms of negation. This limited their communicative ability to a certain extent. These subjects were still able to express what they wished, however it was expressed in a less native-like fashion.

The only pattern found in the category of direct/indirect objects was that the indirect object leur showed a steady downward trend. This suggests that leur, which is used less commonly than lui among the indirect objects, "attrits" the most rapidly of the direct or indirect objects. A frequency count was not compiled, but it was clear that the 1984 group was the only group to use direct and indirect object pronouns in the same sentence correctly. Perhaps the actual form that is suffering attrition at this point in the missionaries' second language is the placement of the object pronouns rather than the pronouns themselves. It would be interesting to see if missionaries returned in earlier years were now showing attrition in the direct and indirect object pronouns.

The percentage of error in use of articles when they were not permitted increased from 1984 to 1980. This pattern could mean that the subjects become more confused as to when to use the article and when not to use the article as their skills in the French language decrease. The determination of the correct situations to use the article or
to leave it out is a difficult aspect of article usage to grasp. Since it is difficult, perhaps this is the first aspect of article usage to be lost and the other usages will follow its path of attrition in the near future.

Only one verb form showed any kind of pattern in any of the analyses done. The subjunctive showed a slight decrease from 0.3% of errors in verb usage to no usage at all. The subjects from the 1980 group avoided using the subjunctive tense at all. There could be several reasons for the lack of patterns in verb usage. The first is that the missionaries could have limited themselves to the tenses and conjugations with which they were familiar. The second is that the missionaries were more familiar with the conditional, future and imperfect tenses than was expected and the loss of these tenses has not yet begun.

The third area that was analyzed was the general characteristics of the language samples of each group. Two patterns appeared when the general characteristics were examined. The first was that the groups' average total words in interview decreased by one thousand words from 1984 to 1980. The other was that with the exception of the 1981 group, the average number of words per error dropped every year.

The vocabulary test was much more successful than the interview in indicating the areas that had suffered attrition. A possible reason for this is that the choices were forced in the vocabulary test whereas in the interview,
the subject could avoid a certain language form if he was not comfortable with it. A recommendation for further research, then, would be to design an instrument to test oral proficiency by forcing the subject to use the language form that is being tested. This would provide the researcher with concrete evidence that the form was either correctly used, incorrectly used, or avoided. In an interview situation, the subject has more freedom to use the structures with which he is comfortable and avoid those of which he is uncertain without these circumstances always being obvious to the interviewer.

Another recommendation for further research would be to analyze not only the language forms, vocabulary and general characteristics of the speech samples, but also to analyze sentence complexity. This too could prove to be valuable in determining the degree or attrition in individuals. This area could be disintegrating rapidly and thus causing the subject to sound less and less proficient in the language without ever showing an indication in the analysis of individual language forms.

The results of this study have been successful in indicating other directions in which further research needs to be conducted. One major area is in aphasia. A determination of whether or not the patterns of loss in aphasia and attrition are comparable remains to be made. From the limited comparison that was made in this study, it would appear that the patterns
are indeed different but a more specific study would need to be conducted before making such a conclusion. Another major area of further research interest would be the general characteristics of a speaker whose language is attriting. Some of the tests discussed above could be included in such a study. Finally, a wider cross-sectional study could be done to determine whether or not the patterns indicated in this study continue as a progression in later years, or whether there are level periods which exist within the process of attrition.

The results of this study have been particularly successful in showing that the analysis of most of the individual language norms do not indicate a pattern of loss. Despite this fact, native speakers judged that the subjects were losing more language each year that they were removed from the environment. This leads to the conclusion that language proficiency cannot be determined by error analyses alone. Language proficiency consists of more than the usage of correct forms. In view of this conclusion, perhaps it will be necessary to redefine language proficiency before true language proficiency can be measured.
APPENDIX A

French Vocabulary

Part 1: Four-choice questions: Select the appropriate word.

1. Prenez _____ pour votre cigare.
   A. un âne  B. une aile  C. une allumette  D. un atelier

2. Trois _____ de sa main gauche étaient blessés.
   A. figures  B. dents  C. os  D. doigts

3. Nous n'avons pas encore fini de ________ la cuisine.
   A. compter  B. gêner  C. nettoyer  D. tailler

4. Tu n'as pas ________ pour ton nez.
   A. de mouton  B. de mouchoir  C. de mouche  D. de montre

5. Il tait noir, je ne vois ____.
   A. aucun  B. même  C. rien  D. quelque chose

6. Hier soir, Michel a été _____ par une voiture.
   A. bouché  B. craché  C. plié  D. écrasé

7. Mettez ________ autour du petit pacquet.
   A. cette ficelle  B. cette feuille  C. ce fils  D. ce fer

8. Le deurre devient _____. Mets le dans le réfrigérateur.
   A. mûr  B. mort  C. mou  D. mêlé

   A. fourchettes  B. gouttes  C. draps  D. plumes

10. Michelle n'est pas allée à l'école parce qu'elle _____.
    A. cuisait  B. toussait  C. frottait  D. serrait
11. _____ dit-il?
   A. que          B. qui          C. quoi          D. quel

12. Tout le monde fait _____ devant le cinéma.
   A. la queue     B. le quartier C. la course     D. le coup

   A. un marteau   B. un mensonge C. un marchand D. un matelas

14. Luc a été _____ d'une balle à la main.
   A. blessé       B. roulé        C. grondé       D. trompé

15. Paul est tres fort. Il travaille _____ que Jean.
   A. mal          B. mieux        C. moyen        D. meilleur

16. Avez-vous mis la soupe dans _____?
   A. l'échelle    B. la pelle     C. la casserole D. la roue

17. C'est à _____ que tu parles?
   A. il           B. se          C. le           D. lui

18. Nous termons les _____ pendant la nuit.
   A. virages      B. voiles       C. volets       D. votes

19. J'ai beaucoup de disques, mais mon frère en a _____.
   A. au-dessus    B. davantage   C. parfaitement D. à travers

20. Claire a attaché les pages du livre avec _____.
   A. de la colonne B. du collier C. du colis D. de la colle

21. _____ sur ce bouton!
   A. Aboutissez   B. Appuyez     C. Attirez      D. Ajoutez

22. Devenir riche est le seul _____ de sa vie.
   A. but          B. bord        C. bout         D. billet

23. Marcel est très triste à cause ________ de son chien.
   A. de la perte  B. du passant  C. de la part     D. de la pente
24. Mon mari est malade, ____ nous ne pourrons pas venir.
A. à cause de  B. afin de  C. voici  D. c'est pourquoi

25. Marie a les yeux ____ et elle rit toujours.
A. vites  B. ivres  C. vifs  D. précis

26. Il a ____ un verre d'eau dans un trait.
A. agité  B. avoué  C. approuvé  D. avalé

27. ____ fait partie du bras.
A. la cheville  B. le genou  C. le coude  D. la jambe

28. Je voudrais ____ votre livre si vous n'en avez pas besoin.
A. emprunter  B. exprimer  C. éclater  D. enfermer

29. ____ de la gare indique 10 heures.
A. Le réveille-matin  B. L'horloge  C. La montre  D. La pendulette

30. Vous commencerez à travailler ____ demain.
A. depuis  B. dès  C. jusqu'à  D. environ

31. Elle a ____ pour son voisin.
A. de la haie  B. de l'habit  C. de la haine  D. de l'horaire

32. Son manteau est tombé dans ____
A. la boue  B. la bourse  C. la boule  D. la bonté

33. On ne travaille pas aujourd'hui ____ c'est un jour de congé.
A. car  B. avant que  C. mais  D. quand

Part 2: Four-choice questions
Select the correct translation for the underlined word.

34. Quel orage! Le tonnerre est incroyable.
A. lightning  B. flooding  C. thunder  D. damage
35. Ton livre n'est pas sur la table. Regardez dessous.  
A. under it  B. beside it  C. above it  D. around it

36. Prenez une couverture. Il va faire froid ce soir.  
A. blanket  B. heater  C. coat  D. cap

37. Elle m'empêche de faire mes devoirs.  
A. encourages me  B. hinders me  C. forces me  D. begs me

38. Vous trouverez les ciseaux dans mon bureau.  
A. calculators  B. files  C. scissors  D. checks

39. Il n'a pas pu porter la lourde boîte sous le bras.  
A. long  B. heavy  C. flimsy  D. broken

40. La voiture a dépassé le camion.  
A. scooter  B. intersection  C. crosswalk  D. truck

41. Je préfère les cours de conversation à ceux de grammaire.  
A. that  B. those  C. them  D. they

42. Le racteur a toujours quelque chose pour moi.  
A. postman  B. paper boy  C. doorman  D. neighbor

43. Le voilà, donc nous pouvons commencer.  
A. carefully  B. quickly  C. consequently  D. happily

44. Je te demande d'éteindre la lampe!  
A. turn off  B. move  C. buy  D. replace

45. Pendant la guerre, il s'est marié.  
A. after  B. because of  C. before  D. during

46. Les gants se trouve au rez-de-chaussée du magasin.  
A. basement  B. ground floor  C. second floor  D. annex

48. Il a dépensé beaucoup en deux jours.  
A. relaxed  B. drew  C. accomplished  D. spent
49. Le chauffage est toujours cher en Europe.
A. heating  B. telephone services  C. gas  D. food

50. Attrapez cet insecte! Il me gêne.
A. catch  B. kill  C. let out  D. step on

51. L'enfant abîme tous ses jouets.
A. loves  B. ruins  C. lends  D. puts away

52. Quelle est la durée de ce film?
A. subject  B. length  C. review  D. rating

53. Ce garçon raconte n'importe quoi.
A. important things  B. impossible things
C. just about anything  D. annoying things

54. Elle parle français comme une Française.
A. for  B. like  C. after  D. to

55. Les freins ne marche plus dans ma voiture.
A. brakes  B. windshield wipers  C. headlights  D. seatbelts

56. Nous allons déménager samedi prochain.
A. clean house  B. paint  C. do repairs  D. move

57. Qui a gagné la lutte?
A. game  B. struggle  C. race  D. lottery

58. Le pneu de voiture est gonflé.
A. inflated  B. gone  C. flat  D. torn

59. Il y a environ trente-cinq étudiants dans la classe.
A. less than  B. exactly  C. more than  D. approximately

60. Jacques prétend qu'il sait tout.
A. pretends  B. wishes  C. claims  D. dreams

61. Le chômage dans le monde est épouvantable.
A. unemployment  B. overpopulation  C. illiteracy  
D. malnutrition

62. C'est une femme très bavarde.  
A. talkative  B. beautiful  C. resourceful  D. well-raised

63. Je rencontre la même gosse tous les jours.  
A. dog  B. service man  C. kid  D. passer-by

64. C'est un homme egoïste.  
A. conceited  B. greedy  C. selfish  D. lazy

65. Il y avait un incendie tout près d'ici hier soir.  
A. accident  B. flood  C. earthquake  D. fire

66. Elle a laissé son carnet à l'école.  
A. wallet  B. notebook  C. homework  D. backpack

Part 3: Write the correct French word as required by context

67. Avez-vous _____ par ici?  
an nurse

68. Cette maison coute _______ que l'autre.  
as much as

69. Tu veux fermer _______?  
the faucet

70. Nous attendons nos amis sur _______ de la gare.  
the platform

71. Mets _______ sur la table pour lui.  
a plate

72. Voulez-vous _______ mon déjeuner avec moi?  
share

73. Je ne peux pas trouver _______. L'as-tu vu?  
the broom

74. Voilà un outil très _______.  
practical

75. _______ de mon nouveau manteau sont trop longues
The sleeves pour moi.

76. Tous les matins, je prends _______.
   a bath

77. Il m'a donné _______ examen.
   another

78. Murielle va étudier _______ pour devenir avocat.
    law

79. Attention! Le lait va _______ partout.
    flow

80. Elle est arrivée _______ son amie.
    before

81. ______ enfant a besoin d'amour.
    Each

82. En allant au Mexique, on s'est arrêté à _______.
    customs

83. Pouvez-vous _______ le tableau pour le professeur?
    erase

84. Madame Dubois cherche _______ toujours à midi.
    the mail

85. Ils ne veulent pas _______ de son erreur
    recognize

86. Marc a pris _______ d'aspirine.
    a pill

87. Il a tout l'argent _____ il a besoin.
    of which

88. David a quitté la ville et habite maintenant _______.
    elsewhere

89. Nous sommes allés à la banque _______ partir en vacances.
    before

90. Je dois aller en ville pour faire _______.
    a purchase

91. Ce médicament est _______ contre la grippe.
    effective

92. Le feu passe au rouge, le voitures vont _______.
93. Elle a tourné la clé dans _______.
   the lock

94. Fais un______ dans mes rubans s'il te plaît.
   knot

95. Paul aime _______ en travaillant.
   whistle

96. Je n'ai pas pu l'________ à son travail.
   tear away

97. Voici deux livres. _______ préfères-tu?
   Which one

98. Le chien cherche toujours _______ de mon père.
   the slippers

99. _______ a traversé la rue.
   The pedestrian

100. Il va au casino pour _______ tout son argent.
    waste
APPENDIX B
Questionnaire

Name________________________________________________________

Country in which you served your mission________________________

Dates you began and ended your mission__________________________

How much experience in French did you have before you entered
the MTC?____________________________________________________

Did you study any languages besides French before entering
the MTC? If so, which languages and for what length of
time? ______________________________________________________

Have you learned any languages since your mission? Which
one(s)? ______________________________________________________

Is your native language English?________________________________

On a scale of 1-5, rate your ability to speak French as
compared to other missionaries at the end of your mission.
1 = very poor compared to others, 5 = superior to other
missionaries.

______________________________________________________________

Are you comfortable speaking French at this point in time
or would you prefer to speak English to a French person?

______________________________________________________________

How do you feel about the country and the people you served
on your mission? (Like, indifferent, dislike)

______________________________________________________________

Did you enjoy learning French?__________________________________

Which French classes have you taken since your mission?

______________________________________________________________

What other contact have you had with the French language
since your mission?__________________________________________
______________________________________________________________
### APPENDIX C

Subject's responses to questionnaire

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LANGUAGE ATTRITION IN FRENCH-SPEAKING MISSIONARIES

Peggy S. Mauerman

College of Humanities
M.A. Degree, August 1985

ABSTRACT

Patterns of language loss were analyzed in twenty-five returned French-speaking missionaries who had spent from one-and-a-half to two years in a French-speaking environment and who had returned to the United States from four months to five years ago. The subjects were given a written vocabulary test and an oral interview to determine their proficiency in the language. The results of this study showed that the patterns of change in particular language forms varied according to each language form. Some categories showed an obvious pattern of loss while some varied from year to year, with no pattern of any kind in evidence. There was a definite pattern of loss found in vocabulary. There was more loss in the productive portion of vocabulary than in the recognition portion. There was also a decrease in overall proficiency in the language.

COMMITTEE APPROVAL: ____________________________
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