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**Massed Versus Distributed Instruction in an Introductory
German-Language Course for Adults.**

Mary Andress

A Thesis

in

The TESL Centre

**Presented in Partial Fulfilment of the Requirements
for the Degree of Master of Arts at
Concordia University
Montreal, Quebec, Canada**

February 1991

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ISBN 0-315-64636-5

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ABSTRACT

Massed Versus Distributed Instruction in an Introductory German-Language Course for Adults.

Mary Andress

This study examines the effects of massed (intensive) and distributed (non-intensive) instruction on attainment and retention in German-language comprehension. Two groups of adult subjects were pre-tested for knowledge of German and language learning aptitude. They then took part in the same 30-hour German course, but under differing time distribution conditions: Group D (distributed) over 11 weeks, and Group M (massed) over one week. In order to ensure complete consistency in instructional methods and materials a multi-media language package was used for both groups, with no additional instruction given.

At the end of their course, each group was tested for achievement in listening and reading comprehension of basic German. Retention was tested for both groups approximately one and three months after the end of the course.

Scores from the first two post-tests were analysed using an analysis of covariance procedure. For the first post-test, scores were adjusted on the basis of statistically significant initial differences between the two groups. In the analysis of scores from the second post-test, score on post-test one was used as the covariate to determine whether one group had retained more than the other since the end of the course. Scores from the third post-test were not subjected to significance testing, as the number of subjects available for the test was very low.

The results of the analyses revealed that given the same total amount of instructional time, and the same instructional methods, subjects in the distributed group had attained a significantly higher level of German comprehension than had those in the massed group. No significant difference was found to exist between the two groups in terms of retention of learning.

ACKNOWLEDGEMENTS

First of all, I would like to thank my thesis director, Palmer Acheson: for sharing the fruits of the pilot study which inspired this thesis; for his help above and beyond the call of duty in planning and carrying out this study; and for his endless encouragement during the writing process. I should also like to express my gratitude to my readers, Jack Upshur, Patsy Lightbown and Maria Fröhlich, for their extremely helpful comments on the first drafts of this document. An additional "thank-you" goes to Jack for hours of patient tutoring in the intricacies of statistical analysis. Many thanks, too, to Ashley Saldanha and Randall Halter, for sharing so generously their superior knowledge of the computer world, and to Maria Kovacs for all her help over the past three years. Last, but far from least, I would like to express my gratitude to Gilles Wendling, for supporting me in everything I undertake. Thank you all very much!

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CHAPTER 1

INTRODUCTION

1.1 Area of Investigation

The time factor in foreign language learning (FLL) is an issue that has generated much discussion and some very important questions but only a relatively small amount of empirical research. What is the relationship between time and achievement in FLL? To arrive at an answer to this question, we would need to consider two aspects of the relationship: the amount of time required to learn a language and the distribution of learning time. Some have suggested that the first (amount) may be dependent on the second (distribution); in other words, that certain time distribution patterns may be more efficient than others. The present study was undertaken in an attempt to provide insight into this second aspect of the time-learning relationship: distribution of time in language learning. Does a difference in time distribution correlate with a difference in FLL attainment, or not? Is it more effective to study language intensively, or non-intensively, or are the two roughly equivalent in effectiveness?

1.2 Historical Perspective

Until World War II, foreign languages were regarded, for the most part, as subjects for academic study only. Relatively few languages were taught, and the widely-accepted time distribution was the 40-50 minute lesson given three to five times a week over a period of two, three or more years (Stern, 1985). This pattern is

still very much a standard one in Canadian secondary school systems today.

World War II brought with it the need to produce as rapidly as possible, for diplomatic and military purposes, fluent foreign language speakers. This need prompted the testing of various time allocations, among them the well-known Army Specialised Training Program (ASTP) intensive approach in which four to six or more hours per day were dedicated to language study. Since the concept was highly successful in a military setting, educators soon began to consider using it in civilian learning situations. These attempts to transfer the approach from military to civilian settings were the subject of much controversy. Some authors such as Morgan (1943) urged educators to be cautious about jumping on the intensive "bandwagon," concluding that:

Extravagant claims for the intensive language course should be discounted. No new principle of language learning is involved, and the results attained will be found on close scrutiny to maintain a constant ratio to the amount of time spent on teaching and learning. (p. 200)

Unfortunately, I can find no evidence that this close scrutiny was ever carried out. Enthusiastic efforts to adapt the ASTP intensive approach to traditional academic programs continued in the fifties.

At the same time (1950s-1960s), another time allocation trend was developing in a somewhat opposite direction. In attempts to increase total hours of language study, many educators were advocating the spread of languages to the primary schools. More time and an earlier start were seen as a possible remedy for the

general weakness in language proficiency of students leaving the school system.

Recommendations were made for very brief daily periods of exposure to the language (e.g., 15-30 minutes a day), stretching over a number of years. This type of pattern has remained typical in many current school systems (e.g., core French programs in some Canadian primary schools).

It would seem, then, that as Stern (1985) puts it, "language teaching, over a period of 40 years or so, has tried almost anything between the extremes of what in Britain is known as 'dripfeed' and 'full flow' without ever settling the time issue in a completely satisfactory way" (p. 18).

1.3 The Present Situation: context of the research

Benseler and Schulz (1979) point out that while the major goal of the original ASTP intensive approach was oral command of a language by adult learners, it has since been applied to a wide variety of purposes and audiences. They list eleven categories of existing intensive courses ranging from courses that stress a specific, isolated skill (listening, speaking, reading, writing), to weekend language retreats, to intensive study of language, literature, culture and civilization during a regular semester. They go on to say that a 1977 national survey of colleges in the United States, "revealed that approximately 50 percent of responding four-year institutions and 13 percent of responding two-year colleges make available some form of intensive instruction" (p.8).

Although these data refer to the United States, the situation in Canada today

seems to be very similar. In Montreal, at least, intensive language courses are springing up everywhere: in public and private schools, in colleges, in universities. Private language centres offer intensive courses for adults in a myriad of languages. It is not at all uncommon to hear, coming from the mouths of students and teachers alike, statements such as "Everyone knows that intensive courses are better..." All of this seems to reflect an existing widespread belief that intensive language courses are somehow inherently more effective than their more traditional, non-intensive counterparts.

1.4 Purpose and Overview of Thesis

Prompted by the observation of this apparent belief in the superiority of intensive language teaching, I undertook this thesis with two objectives in mind. First, I wished to determine, through an examination of currently available evidence relating to the effect of time distribution on learning in general, and on language learning in particular, whether or not this belief has any empirical basis. This is done in the literature review, chapter two of this document. Second, taking the literature review as a point of departure, I hoped, by carrying out my own study, to provide further empirical data which would increase the existing body of evidence regarding the role of time distribution in FLL. Chapter three describes the experimental study done to this end, which was designed to isolate time distribution as a factor in FLL, and to examine its effect on achievement. The results of the study are presented in chapter four. Finally, in chapter 5, these results are discussed and related to existing

evidence. Some tentative conclusions are reached regarding the role of time distribution in FLL, and suggestions are made for further research.

CHAPTER 2

REVIEW OF THE LITERATURE

2.1 Introduction

Language teaching literature abounds in claims for the superiority of intensive language teaching (ILT). Deveny and Bookout (1976) maintain that students of intensive courses are "better prepared than their counterparts who go through the normal two-semester elementary language sequence..." (p.33). Strevens (1980) writes of a widespread belief among teachers who have tried it that an increase in the intensity of teaching leads to a more than proportionate increase in the rate of learning per unit time, going so far as to say that "within the 'normal' range of 5-20 hours per week it is widely accepted that the learning yield per hour increases directly with intensity" (pp. 26-27). Benseler and Schulz (1979) also speak of a consensus among educators who have successfully implemented intensive courses, that such courses accelerate language learning. They assert that "the most important advantage of intensive instruction lies in the evidence that such courses can develop superior language proficiency" (p. 12).

The most common arguments given *for* intensive language teaching are a) that intensive courses reduce the "forgetting" time that is so abundant in non-intensive courses, and therefore, the amount of time that needs to be spent on review, and b) that intensive courses increase student motivation by giving fast results and by promoting group cohesion and a positive classroom atmosphere. On the other hand, a possible argument *against* intensive courses is that with their short-term concentration

of content, they may not allow for sufficient absorption or "digestion" time, especially for those students who learn less quickly (Benseler & Schulz, 1979). Thus, level of retention might be lower for students who have studied a language in an intensive setting.

Conjecture aside, however, a review of the literature reveals that we actually *know* very little about the relative merits of intensive and non-intensive language courses. This is not to imply that nothing has been written about intensive language teaching. Indeed, one review of publications on the subject (Benseler and Schulz, 1979) yielded over three hundred citations. The fact remains, however, that very little empirical evidence exists to support or disprove claims such as those cited above.

Existing literature on ILT can be generally divided into three categories. The first, and perhaps largest, category to be considered is that of anecdotal evidence: descriptions written by educators of their attempts to implement intensive courses in classroom settings. A second body of literature relating to ILT consists of studies of massed and distributed practice from the field of psychology. The third category comprises classroom studies from the field of foreign language learning and teaching, which attempt to bridge the gap between the highly controlled laboratory work of psychology and the subjective descriptions of ILT teachers, examining the effects of ILT in real language learning situations. The evidence from all three of these areas will be reviewed below.

2.2 The Voice of Experience: anecdotal evidence

Descriptions of experimental intensive language courses are abundant in the language learning literature. Courses have been carried out in a multitude of language learning situations, with a wide variety of students. Abbott (1971), for example, describes an intensive course in French in which adult students from a variety of backgrounds, with little or no knowledge of French, were offered four sessions per week during one term, for a total time of 80 hours. The course was led by two regular schoolteachers, teaching on separate evenings using the established college French course for beginners (Crédif: Voix et Images de France) and language laboratory. Abbot gives no quantitative data, but reports that the course was highly successful.

Garcia-Lucas (1988) reports on the success of two intensive courses in Spanish for sixteen-year olds wanting to qualify for British university matriculation ("A levels"). The courses lasted two weeks, with classes being held from 9:00 am to 4:30 pm each day. By the end of the course the students, who had started as complete beginners, had acquired a working knowledge of the language at school leaving ("O level") standard, and were able to join "A" level classes. Apparently, they were able to successfully complete in only two weeks, an amount of work which is normally spread over a period of several years. Unfortunately, Garcia-Lucas gives few details regarding the students or the course itself.

Howson (1988) reports on a five-day, twenty-five-hour-long course for secondary school "underachievers" in French resulting in gains in confidence on the

part of the students and a great deal of satisfaction for both students and teachers. Many, many more such examples exist (see, for example: Hawkins & Perren, 1978 and Hawkins, 1988, for collections of similar descriptions) all concluding with positive statements about ILT. However, it must be noted that in none of these cases was any comparison made with a non-intensive control group, and no results are given, except, perhaps, impressionistic statements regarding the success of the course in terms of student achievement and teacher satisfaction. Thus, while certainly indicating that ILT can be effective, such anecdotal evidence provides no basis for drawing firm conclusions regarding the superiority (or inferiority) of ILT.

2.3 Psychological Research: massed and distributed practice

Psychologists have long been interested in the question of the effects of massed (intensive) practice and distributed (non-intensive) practice on learning in general. Vast numbers of studies have been done, far too many to be considered in detail here, especially since very few of them deal specifically with second or foreign language learning. However, a review of this literature reveals that the majority of researchers have found distributed practice (DP) to be superior to massed practice (MP).

Early studies showed that when DP is introduced in the acquisition of various motor tasks and skills, enormous facilitative effects on performance are observed (e.g., Kientzle, 1946; Kimble & Bilodeau, 1949). However, the effects of DP on verbal learning were found to be of a much smaller magnitude, occurring only under certain conditions (Underwood, 1961). Some authors (e.g., Bloom and Shuell, 1981)

feel that this is due to the fact that very short distribution intervals (DP= 1-4 minutes, MP= 2-8 seconds) were used in these early studies of verbal learning. More recent studies have used relatively long distribution intervals (e.g., 24 hours) and observed large and impressive differences between the effects of DP and MP.

For example, Keppel (1964) looked at the conditions of learning under which the retention of verbal material may be increased, and found DP to be more effective than MP. Subjects were tested for retention one day after the learning of paired associate word lists, and again eight days later. Retention after one day was 89% and 31%, and after eight days, 72% and 7% for the DP and MP groups respectively. In addition, the DP group was retested after 29 days and showed a retention level of 34% (higher than the MP group after only one day).

Underwood and Ekstrand (1967) provide further evidence that distribution of practice can have important effects on verbal learning and retention, especially when relatively long distribution intervals are used.

Izawa (1971) points out that the relatively small differences between the effects of massed and distributed practice found in early experiments may be a function of the experimental design and the methods used. Using an innovative design, he conducted a series of nine experiments on massed and distributed practice in verbal paired-associate learning and found that while no DP advantages were observed under the method used in earlier experiments, significantly superior performances were produced under conditions of DP in all three sets of experiments using his modified design. He concludes that "this investigation unequivocally demonstrated significant

advantages of spaced over massed practice" (p. 21).

Schwarz and Terrell (1983) studied the acquisition of contrived lexical concepts by twelve children (six males, six females) ranging in age from 1;0 to 3;15 years. They found that, given an equal number of presentations, the children were more likely to acquire words for objects and actions if the presentations occurred over a longer period of time than if they were presented in a limited time period. That is, distributed presentations led to greater and more rapid acquisition of vocabulary in a new language than massed presentations.

It must, however, be noted that all of the above-mentioned experiments were carried out under laboratory conditions, where even the relatively long distribution intervals were no more than 24 hours, and short intervals consisted of several seconds or perhaps minutes. Further, the learning done in each case was relatively trivial (e.g., word lists or individual vocabulary items). Finally, only the last study mentioned (Schwarz & Terrell, 1983) deals with learning in a language other than the subjects' L1. Therefore, results may not be applicable to situations of classroom foreign language instruction.

Some researchers have made attempts to investigate whether or not this DP effect does transfer to more applied situations. In these cases, results are not as clearly in favour of distributed practice. Berah (1981) experimented with massed and distributed practice in group assertion-training for women. Sixty-six college students were assigned to one of nine training groups under four conditions: no treatment; massed practice (six hours of assertion training on two consecutive days); distributed

practice (eight twice-weekly 90 minute sessions); and combined massed and distributed practice (an initial six-hour session followed by four weekly 90-minute sessions). Results of the study showed no significant difference in either initial learning or retention for any of the treatment conditions.

Bloom and Shuell (1981), in one of the very few studies of massed and distributed practice carried out in a classroom setting using a foreign language, tested subjects for their recall of 20 French vocabulary items. They found no difference in initial learning between those subjects who had studied under conditions of MP (30 consecutive minutes of study on a single day) and DP (10 minutes of study on three consecutive days). However, the DP group performed 35% better than the MP group on a retest given four days later. The authors caution that "differences must be looked for only after some period of time has elapsed, it is not reasonable to expect differences favoring distributed practice to appear during learning" (p.248). While this study has the advantage, for our purposes, of having been carried out in the classroom, it is still not clear to what extent these findings can be generalized to the learning and retention of anything more than vocabulary lists.

On the whole, the advantageous "DP effect" seems to be a well-entrenched, and widely-accepted principle of learning psychology (Azbadafari, 1983). In an attempt to explain the reasons for this effect, Glass and Holyoak (1986) state that "distributed repetitions produce greater recall because they produce more discriminable memory representations" (p. 270). Schwartz and Terrell (1983) posit that one underlying cause of the DP effect may be the opportunity provided by

distributed practice to consolidate learning. Both of these explanations would seem to accord with the earlier mentioned intuitions of some educators (e.g., Benseler & Schulz, 1979) regarding the possible disadvantages of intensive approaches to language teaching.

In summary, the view one gets from psychological research is that if indeed there is any difference between the effects of MP and DP on learning, it is DP that is the more effective. It would appear, then, that there is a basic conflict between the intuition and experience of large numbers of language teachers, and the laboratory research findings of psychology.

2.4 Research in Language Teaching and Learning

Until fairly recently, research from the field of second language learning and teaching seemed to indicate that the most important determiner of attainment in learning was the amount of time spent on the learning process. This was the view expressed by Burstall et al. in 1975, and later confirmed by Carroll (1975) in his international study on French in eight countries. In 1976, this finding was reiterated by Stern, who, in his report on the Ottawa-Carleton French Project, says "It has become clear that, generally speaking, any increase in daily time leads to an average increase in the measured amount of learning" (p. 222). This view, that time is time, and that it makes no difference to learning whether it is massed or distributed, seems to make a good deal of common sense. If this is true, then intensive language teaching, which allows for a quick accumulation of learning-hours, is only *faster* than

non-intensive, and not inherently *more effective*.

On the other hand, as Swain (1981b) points out, "There is increasing evidence that contradicts these findings, and puts this common-sense view in jeopardy" (p. 1). Stern (1982) too, talks about a shift in viewpoint reflected in recent studies which attempt to understand the interaction between total time and other factors (eg. learner age, aptitude, distribution of time) which may play a role in language learning.

Is distribution of time one of the more important factors? In order to determine this, we would need to look at empirical evidence from studies comparing massed to distributed practice within the contexts of language learning and the language classroom. Studies such as these, which bridge the gap between the highly controlled laboratory work of psychology and the subjective descriptions of ILT teachers, comprise this third and smallest category of literature relating to ILT.

A number of such studies have investigated different time distributions in Canadian public-school language programs. Swain (1981a), for example, reports on the effect of intensity in some data collected in Ontario schools. She compared two groups of children who had accumulated a similar number of hours (1400) of French as a second language (FSL) instruction, but in very different intensities. One group (DP) had had 75 minutes of French a day from grade one through grade four, followed by a core French program (approximately 20 minutes a day) from grade five through nine. The other group (MP) studied French in a core program in grade 7, and then in an immersion program for grades 8, 9, and 10. The average scores on proficiency tests administered were found to be far superior for the MP group.

However, Swain notes that such differences have also been found among groups where intensities were similar. Clearly, then, distribution of time is not the only factor that contributes to achievement in FLL, and unless other variables (e.g., learner age, teaching methods, etc.) can be weeded out, it is difficult to determine to what degree an observed effect, in this or other studies, is due only to a difference in time distribution. Unfortunately, circumstances involved in classroom research often make it impossible to control these other possible variables.

Lightbown and Spada (1987), and Spada and Lightbown (1989), report on the effects of distribution of time in public school English Second Language (ESL) programs in Quebec. They looked at 33 groups of grade 5 and 6 students (intact classes of 26-30 students each) who had participated in the special intensive English courses which are offered by a number of school boards in Quebec. The students had received full-time ESL instruction over five months, for a total of 350-400 hours. These intensive groups were compared on a number of measures to comparison groups consisting of: a) grade 5 and 6 learners who were in regular ESL programs and b) groups of older grade 9 and 10 students who had accumulated approximately the same number of hours of instruction, but over a much longer period of time (5-6 years). Results showed highly significant differences between the intensive and regular grade 5/6 ESL groups on post-tests of listening and reading comprehension. Furthermore, the intensive program learners were found to be more fluent, and to produce a wider variety of vocabulary items. This is not really surprising, given that the intensive groups had had a far greater number of hours of instruction than the

others. However, the intensive groups *also* tended to outperform, on tests of listening comprehension and oral production, the grade 9/10 comparison groups, who had received a *comparable* amount of ESL instruction.

Here again, though, results must be interpreted with caution. As the authors point out, the two groups of students differed in a number of ways, only one of which was intensity of instruction. In addition to the obvious difference in age (10 to 11-year-olds versus 14 to 15-year-olds), the older and younger students were exposed to very different language-teaching programs and materials. Finally, the authors point out that both the students and teachers involved in the intensive courses were volunteers, and thus likely to differ from the comparison groups in motivation and enthusiasm.

Lightbown and Spada (1989), in a follow-up to the study mentioned above, report on an investigation into the long-term effects of these five-month intensive ESL courses. They studied the ESL proficiency of 60 students at the secondary V level. Thirty of their subjects had received the regular ESL instructional program of 60-120 minutes per week in grades 4 to 6 and a maximum of 150 minutes per week in secondary I to V. The remaining 30 had participated in an intensive course at the primary level, later returning to a regular ESL program ("post-intensive group"). The post-intensive subjects performed better than the others, in terms of fluency, accuracy, and variety of vocabulary, on all measures of oral production. This suggests that the post-intensive subjects had maintained whatever initial advantage they had over the non-intensive subjects.

However, it must again be noted that the intensive subjects had accumulated more hours of ESL instruction than the non-intensive comparison group to begin with. Furthermore, the results of this study indicated that the post-intensive group had more contact with English outside of ESL classes. Thus, the gap between the two groups in terms of hours of exposure to English would have increased over their years of secondary study. Finally, the authors acknowledge as a limitation of the study the fact that it was not possible to compare these two groups of students to each other before the initial intensive course took place. The question remains as to whether these two groups did not differ at the outset in terms of variables such as attitude, motivation, language learning aptitude, or academic ability.

Stern (1985) has suggested that intensive courses, being academically demanding, are likely to be most beneficial to older and more experienced learners. Studies of time distribution done with adults, therefore, may attenuate the age variable problems inherent in some of the previously mentioned studies.

Williamsen (1968) describes one such study, in which 19 male college students studied Spanish intensively, at a rate of about seven hours a day, five days a week, for eight weeks. At the end of this course of study, their scores on MLA Spanish achievement tests were compared to those of a control group consisting of the 192 men who had completed first and second year classes in the college's regular Spanish program in the two preceding school years. All 19 of the participating students achieved results equal to those reached by the students of the control group at the end of the first year of college study in Spanish. Twelve of the experimental students,

about 60% of the total, showed results equal to or better than those shown by the control group at the end of four semesters of college study.

Wallace (1972), in a paper entitled "Three Weeks Equals Thirty Weeks?," reports on a set of three-week intensive courses offered to college and university students in French, German, Spanish and Russian. Forty-seven students took part in the experimental courses, studying at a rate of six to seven hours per day, six days per week. At the end of the three weeks, the students were given the MLA Cooperative Foreign Language Test for their chosen language. As a group, they scored above the 50th percentile in all areas for college norms based on one year of previous study. Wallace concludes that, in this case at least, three weeks (of intensive study) is indeed equal to thirty weeks (of normal study).

Similarly positive results are reported by Frank (1973), and Schneider (1977) who also compare achievement scores for intensive groups to college norms for students in regular (non-intensive) language programs. In none of these studies, however, is it clear that the "control" and experimental groups have had the same number of hours of instruction, or the same *type* of instruction. Thus, it is difficult to say how valid the comparison really is.

In an unpublished doctoral thesis, Ainslie (1985) reports on a major classroom study in which both of these factors (amount and type of instruction) were at least partially controlled across intensive and non-intensive treatment groups. One hundred and forty-three adult learners took part in one of nine beginning-level French courses held in a variety of institutions, choosing (rather than being randomly assigned to)

either massed or distributed time conditions. Total language learning time was approximately the same for all groups: 60 hours (42 hours of formal tuition plus an estimated average of 18 hours of private study), with the MP groups working six hours per day for two five-day weeks, and the DP groups two and one half hours per week over 24 weeks. Core materials for all classes consisted of a BBC audio-visual package. In addition though, individual teachers gave complementary exercises and activities such as role play, pair work and group discussion, adapting the program to their particular group of students. Global achievement was evaluated on the basis of taped tests done before the course, and after the sixth and twelfth (final) units.

Results showed that there was a tendency for learners to be more successful in the distributed time groups, especially those learners who were complete beginners. The differences, however, proved not to be statistically significant. It must be remembered, though, that while total accumulated time and instructional materials were basically the same for all groups, neither was rigidly controlled. The use of different teachers introduces some doubt as to the uniformity of the instructional treatment for the various groups. In addition, due to problems encountered in some of the DP groups, the DP program was modified halfway through the course. Any or all of these factors may have influenced the results of the experiment.

Acheson (1989, 1990) reports on a pilot study in which the time variable was more effectively isolated than in any of the previously mentioned studies. Two groups of subjects received the same amount of instruction in German (20 hours), the MP group over one week and the DP group over ten weeks. Instructional variables

of teacher, method, and materials were held constant across the two groups through the sole use of a BBC multimedia language program. In addition, this study attempted to address the question of retention of learning under the two conditions, something which none of the other ILL studies described above had successfully done. Preliminary results showed no meaningful difference between the two groups in either initial learning or retention (one and three months later). Unfortunately, however, the small number of subjects involved made statistical analysis difficult, and these results can only be seen as tentative.

2.5 Conclusion: rationale for the present research

It is clear, by now, that the role of the time factor in language learning is far from well understood. We have no conclusive evidence showing that distribution of time is a variable in language learning, much less that one type of distribution is more effective than another in promoting learning. Is it the distribution of time per se that accounts for the (sometimes) perceived superiority of intensive language teaching? Or is it some other variable? The important question of the effect of time distribution on *retention* of learning has hardly even been addressed. If we are to develop a comprehensive model of language learning, which takes into consideration the effect of learning conditions on FLL, we need to find out more about the role of time distribution in FLL.

In addition to their theoretical importance, answers to the above questions would provide necessary input for ministries, school boards, teachers and prospective

students who are trying to make rational decisions about time allocations for language learning, decisions which, up to now, have been most often based on factors such as cost and time-table convenience.

And yet, as is made clear by the conflicting results reported in the literature, these questions will not be easy ones to answer. Problems in the study of time distribution can be attributed to at least two factors: the difficulty of examining time distribution uncontaminated by other variables involved in classroom research, and the very complexity of the time distribution variable itself. Distribution of time must be seen as a continuum, characterisable only in terms of degrees and not in terms of a dichotomy. We might *expect* results to differ depending upon which two points on the continuum are examined. Clearly, then, no single study can provide definitive answers to the complex question of the time distribution factor. If we are to arrive at answers to these questions with any reasonable amount of certainty, we need to amass evidence from many more studies which examine different degrees of intensity uncontaminated by other variables. The present study, which constitutes a replication of the pilot study done by Acheson (1989, 1990) on a larger scale, was undertaken in an attempt to begin to provide such evidence.

CHAPTER 3

RESEARCH DESIGN AND METHOD

3.1 Specific Research Question

The specific research question which the present study sets out to explore is: where non-intensive (distributed) instruction is defined as three hours per week, and intensive (massed) instruction is defined as 30 hours per week, do the two result in differences in either a) level of attainment or b) retention of learning in German comprehension?

3.2 General Experimental Design

The overall design of the experiment was as follows: Two groups of subjects were pre-tested for knowledge of German and language learning aptitude. Each group then followed the same 30-hour German course under differing time distribution conditions: Group D (distributed) over 11 weeks, and Group M (massed) over one week. These two time distribution patterns were chosen as being extreme enough to maximize possible differences in effect, while remaining within the range of realistic time distributions for classroom FLL. Instructional variables of teacher, method, and materials were the same for both groups. At the end of their course, each group was tested for achievement in listening and reading comprehension of basic German. Retention was tested for both groups one and three months after the end of the course.

Individual aspects of the experimental design (subjects, materials, and procedures) are discussed in detail below.

3.3 Subjects

The total number of subjects taking part in the study was 65: 29 males and 36 females. All were adult residents of Quebec, ranging in age from 19 to 65 years. Fifty-three were Anglophones, seven were Francophones, and five spoke another language as their native tongue. All of the non-Anglophones were judged in a screening interview to be fairly fluent in English, certainly more than capable of following test instructions, etc. given in English.

The subjects were recruited by means of advertisements (placed in the Montreal Gazette, and in the internal newspapers of Montreal's two Anglophone universities, Concordia and McGill), and also by word-of-mouth. They came mainly from the Concordia and McGill university communities. Thus, 43 of the subjects were full or part-time university students. Seven subjects were professors or instructors from one of the above-named universities, and four were teachers from other institutions. The rest were either employed in white-collar positions outside of the university, or retired.

The subjects were a fairly well-educated group: 19 had completed studies at the secondary school level only. Thirty-four had completed university studies at the bachelor's level, seven at the master's level and five at the doctoral level. Further, it seems likely that they were fairly experienced language learners. Only one subject

was a monolingual speaker of English. The rest reported some familiarity with at least one language other than their native language. The maximum number of languages reported was nine, and the mean for the whole group was three. (For information on individual subjects, see appendix I.)

3.4 Instructional Materials.

The instructional materials used in the study are the same as those used in Acheson's pilot study: a multi-media German language program called **Deutsch Direkt!**. The program, produced by the British Broadcasting Corporation (BBC), was originally meant for use in independent home study, with lessons being delivered via television and radio broadcast. It is now available as a complete instructional package consisting of video tapes, audio tapes, and a corresponding textbook, each of which is divided into twenty units. In content, the package appears to be geared towards prospective visitors to Germany and Austria. The topics covered range from the practical (ordering in restaurants and buying gasoline) to the cultural (restoration of cathedrals and traditional festivals).

The video tapes were filmed in different parts of Germany and Austria, and are completely in German. The 20 programs depict interviews and conversations between native speakers of German, speaking at a normal rate and with a variety of accents, on topics such as those mentioned above. Especially at the beginning of each video, the conversations are interspersed with very brief "mini-lessons" in which

certain phrases or grammatical structures are highlighted. The video for each unit lasts approximately 25 minutes.

The audio-taped section for each unit is about 15 minutes long. The tapes repeat some of the conversations introduced in the videos, as well as introducing some new ones taken from BBC radio broadcasts. For the first 15 units, the tapes also contain pronunciation exercises in which the students repeat key words and phrases, and question/answer-type exercises in which students may try to use what they have learned. The last five units are considered to be review, and no exercises are given.

The textbook ties together the other two parts of the course. It sets the scene by giving background information (in both English and German) about the conversations on the video and audio tapes, and contains written transcripts of most of these conversations, along with a glossary of key vocabulary used. Each unit ends with a culturally-oriented "Magazine" section written in English and German. Additional exercises are given for each unit, as well as brief grammatical explanations of key points. English is always used in the textbook for metalinguistic explanations.

3.5 Data Collection Instruments

3.5.1 Registration & biographical data forms (appendices A & B)

The registration and biographical data forms were designed to collect basic personal information on the subjects as well as information regarding factors which were felt to have a possible influence on achievement in language learning: previous language learning experience (amount and type), number of languages known,

motivation for learning German, beliefs about intensive versus non-intensive language learning, and contact with native speakers of the target language.

3.5.2 Tests of language learning aptitude (appendix C)

Two aptitude tests were used in the study. The first was a German-based test developed by the University of Oxford Educational Research Group (OERG) as a tool for selecting British secondary-school pupils who should be offered an opportunity to study German as a second foreign language in school (usually after French). The test, which is administered over two sessions, is designed to measure three factors relating to language learning aptitude: 1) short-term memory, 2) long-term memory, and 3) ability to make grammatical inferences based on auditory material.

At the first session, the subjects are taught the sixteen German words corresponding to the pictures on pupil's sheet (i), given two minutes to memorize them, and then tested for immediate recall of the words (pupil's sheet ii). Next, they are taught the different singular and plural forms corresponding to pictures 1 to 6 (on test 2). Items 7 to 9 test their learning of the forms, and items 10 to 16, their ability to generalize these forms to new words, by asking them to choose the picture which corresponds to the word they hear. The same process is carried out in items 17 to 32, for plural verb forms in whole sentences. They learn the sentences for pictures 17 to 22, are tested on those sentences (items 23 to 25), and then are asked to make inferences about new sentences (items 26 to 32). At the second session (one week later), they are tested for long-term retention of the first 16 words learned in test one.

Full reports on the pre-testing and development of the OERG test are given by Miller (1980 & 1982).

Because the German course used in the study requires students to do a fair amount of work with written text, the OERG test was supplemented with a simple Esperanto-based aptitude test taken from a book of tests assembled by educational technologist Michael Nathenson (1984). This test is designed to measure ability for inductive grammatical analysis of written text. (It must be noted, however, that no data are given concerning the development of the test or its validity.) Subjects are given an Esperanto paragraph together with a translation of the paragraph into English. They are then asked to make inferences regarding the meanings of 30 words from the Esperanto paragraph by comparing the two versions.

3.5.3 Pre-test of German comprehension (appendix D)

The test used to measure entry-level proficiency in German was the "Basic German-Language Comprehension Test" developed by Acheson (in progress). The test is divided into two sections: listening comprehension and translation. The listening comprehension section is based on an exercise from unit one of the *Deutsch Direkt!* text book. It involves listening to eight sentences spoken in German, and locating the place referred to in each sentence on a map on the answer sheet. The translation part of the test consists of 25 brief sentences or sequences of sentences (i.e., question and answer) taken from units 1 to 20 of the textbook. The sentences are presented on the test in the order in which they appeared in the textbook. Thus

the sentences become progressively more difficult. The subjects are asked to give the English equivalent for each sentence or, if they are unable to translate the complete sentence, for any familiar words within the sentence.

3.5.4 RSA achievement test (appendix E)

One of the tests used as a post-test to measure achievement in German comprehension was the "RSA/BBC Achievement Test for **Deutsch Direkt!**". This test was developed by the Royal Society of Arts Examinations Board (in conjunction with the BBC) for use with the **Deutsch Direkt!** program. It does, however, contain a certain amount of vocabulary which is not included in the course. The test consists of three sections: listening, reading, and writing. It was decided that only the first two sections (listening and reading) should be used, as the focus of the experiment is comprehension, with little or no production being required of the students.

The listening comprehension section of the test consists of 17 questions based on eight brief monologues in spoken German, representing a variety of situations that might be encountered by a tourist in Germany. The passages were tape-recorded by one native and one near-native speaker of German (one female, one male) using the script provided by the RSA. Each passage is repeated on the tape three times.

The reading section of the test consists of a set of reading materials related to tourism (eg. a hotel brochure, a restaurant menu, tourist information), and a test paper containing two to five questions on each of the four reading passages. All answers to both sections of the test are to be written in English.

3.5.5 Basic German-Language Achievement Tests 1-3 (appendix F)

The RSA post-test was supplemented with three further achievement tests, called simply "Basic German-Language Achievement Tests 1-3" (BGLAT 1-3). Two of these tests had been developed for the pilot study (Acheson, 1989, 1990). The third was developed for the present study. These additional tests were included for two reasons. First, it was not clear what level of achievement the subjects could realistically be expected to reach. It was thought that because the RSA test contained vocabulary outside the scope of the course, it might simply be too difficult. Second, the RSA test was available in only one form. The question arose as to what effect repetition of the same form over three post-tests might have on the results. The BGLAT tests, which were designed strictly on the basis of course content in three different but parallel forms, were included in the experimental design as a safeguard against such possible complications.

All three of these post-tests had the same format as the pre-test, but on an expanded scale: a listening comprehension section consisting of questions based on five or six listening passages from the course audio tapes, and a translation section containing 30 sentences chosen from throughout the course text. While the form of the three tests was parallel, they differed in specific content. For these tests as well, all answers are to be given in English.

3.5.6 Language learning diary form (appendix G)

It would have been unrealistic to try to prohibit the subjects from studying outside of class time. Therefore, it was necessary to have complete information regarding the amount of time subjects spent practicing German, and the type of practice activities they engaged in. Language learning diary forms were designed to provide an ongoing, quantitative and qualitative daily record of such out-of-class practice. In addition, space is allowed on the form for the recording of feelings and comments about the course.

3.6 Procedure

3.6.1 Subject selection and assignment

All potential subjects who responded to the advertisement were briefly interviewed by telephone. Personal information was taken down, as well as information pertaining to the number of languages spoken by the subject, and their assessment of their level of competence in each of these languages (see registration form, appendix A). Those who reported more than a minimal familiarity with German were rejected.

A brief description of the course to be offered was given, and subjects were questioned as to their availability for the two time distribution groups. Initially, the intention of the researcher was to accept only those who were available for both groups and assign them randomly to the intensive and non-intensive treatment groups. This, however, proved impossible. The number of potential subjects available for

assignment to both groups was negligible. In the end, the subjects had to be allowed to sign up for the group of their choice. Furthermore, many subjects only became aware of the experiment after the non-intensive class had already started (1990-01-12). Thus, they were put into the intensive group which began at a later date (1990-5-7).

A total of 32 subjects went into the non-intensive course (group D) and 33 into the intensive course (group M).

3.6.2 Pre-test session

An information and pre-test session was held for each group one week before the beginning of the course. The procedure for both sessions was the same. First, the nature and format of the course were explained in detail and handouts were passed out giving schedules of dates and times and suggestions for practice activities during the personal study periods (see appendix H). The biographical data forms were then handed out, and subjects were allowed as much time as they needed to complete them.

This was followed by the administration of the two aptitude tests. The first part of the OERG test was administered using the tape-recording provided, in accordance with the instructions provided by the developers of the test. All instructions to students and answer pauses were included on the tape. The second part of the OERG test (long-term memory) was administered in the same manner one week later, at the beginning of the first class session.

When the first part of the OERG test had been completed, the Esperanto aptitude test was administered. This was done as follows: The test sheets were distributed, and a tape recording of the test instructions was played. Subjects were then given one minute to read the English passage. At the end of one minute, the subjects were asked to listen to a tape-recording of the Esperanto passage read aloud, following the text before them as they listened. They were then given 10 minutes to complete the 30 test questions.

The final test given at this session was the pre-test of basic German comprehension. A tape-recording was used to administer the listening comprehension section of the test. Instructions to the students were played first, and any questions answered. The test sentences were then played, each one repeated twice on the tape and followed by a pause in which subjects could write their answers. Finally, the instructions for the reading comprehension section were read aloud by the researcher, and the subjects were given 15 minutes to translate as many of the 25 sentences as possible.

At the end of the testing session, the textbook for the course was distributed, and a brief explanation given of its format. Language learning diary sheets were given out, along with a handout explaining their use (appendix G). The subjects were asked to use them from this point on (until the third post-test) to record any contact they had with German.

3.6.3 Classroom instruction

Both the non-intensive (D) and the intensive (M) groups spent a total of 30 hours in the classroom, completing the 20-unit **Deutsch Direkt** course. Five classroom hours were taken up by administrative details, breaks, and completion of language learning diaries. The other 25 hours were devoted to language study.

For each unit of the course the following cycle of activities was carried out by both groups:

1. Personal study period #1 (preview of video tape material in textbook):
15 minutes.
2. Presentation of video tape for the unit: 25 minutes.
3. Personal study period #2 (preview of audio tape material in textbook):
20 minutes.
4. Presentation of audio tape for the unit: 15 minutes.

The two groups differed only in the rate at which the units were covered. Group D met once a week for three hours over 11 weeks (a one-week break was given halfway through the course to coincide with Concordia University's spring break). Two units were completed in each of the ten three-hour sessions, following the steps outlined above, with a 15-minute break given between units.

Group M met daily for six hours per day over five consecutive days. Thus, they completed four units per day: two in the morning, and two in the afternoon. Again, a 15-minute break was given between units. A one hour break was taken between the morning and afternoon sessions (see appendix H for an exact timetable of dates and times for each group).

The researcher's role was limited to presenting the video and audio tapes, controlling the timing of each class session, and taking care of administrative details (attendance, etc.). Suggestions were given as to how the subjects should make use of their personal study time (e.g., practicing conversations in pairs or working on exercises in the text), but no classroom instruction was provided by the researcher.

3.6.4 Post-test sessions 1-3

Both groups were post-tested for achievement at the end of their last class session, and for retention one and three months after the end of the course.

At the first post-test session the first of the three "Basic German-Language Achievement Tests" designed for the study was administered. Instructions for the listening comprehension section were read aloud and explained. Then the taped conversations were played. Each conversation was recorded twice, with a pause after each repetition. Lengthy passages were broken down into sections of two to three sentences (allowing for natural breaks) on the second repetition. Subjects were given a few minutes to check their answers before going on to the translation part of the test. The instructions for this portion were again read aloud, and the subjects were given 15 minutes to translate as much as they could of the thirty sentences on the test.

Following this, the RSA achievement test was administered. The listening comprehension section was again given first. Subjects were asked to read the "situation" information given on the front of the test booklet. Before each taped passage was played, they were instructed to read over the questions relating to the

passage. The passage was then played twice, followed by a 1 to 2 1/2 minute pause (according to RSA instructions) for writing answers. Due to the level of difficulty of the test, each passage was repeated a third time after the pause, so that the subjects could check their answers. Finally, the subjects did the reading comprehension portion of the RSA test. They were instructed to read each passage in the reading materials booklet, and to answer the corresponding questions on the test paper. A maximum time of 45 minutes was allowed.

For the second post-test session (28 days later), the second form of the BGLAT was administered, followed again by the RSA test, always using the procedures outlined above.

Procedures were modified for the third post-test, which was given three months (84 days) after the end of the course. Very few subjects were available for this session, and those who were available had expressed an unwillingness to repeat the difficult and lengthy RSA test a third time. Given the small numbers involved, and in deference to the subjects, the RSA test was not administered at this time. Only the third form of the BGLAT was given. The same procedures were followed for this test as at previous post-test sessions.

CHAPTER 4

DATA ANALYSIS

4.1 Pre-instruction Data

As previously explained, all subjects were required, before beginning their German course, to complete a biographical data form, two aptitude tests, and a pre-test of German comprehension. These measures were administered at the pre-test sessions to a total of 65 subjects: 32 in Group D, and 33 in Group M. Unfortunately, however, the dropout rate for Group D was very high, and only 15 of the original subjects completed the course to the first post-test session. The rate of loss in Group M was much lower. Twenty-eight of the 33 Group M subjects completed the course. The total number of subjects post-tested, then, was 43.

Most of the data from the pre-instruction measures (biographical data form, aptitude tests, and pre-test) have been analyzed in two forms for each of Groups D and M: first, for all subjects who began the course (all subjects pre-tested); and second, for those subjects who completed the course (all subjects post-tested).

4.1.1 Biographical data: sex, age, education and language background

A great deal of information was gathered on the biographical data forms, and a complete analysis of it goes beyond the scope of this thesis. For the purposes of this study, the following variables were chosen for initial analysis: sex, age, education level, and number of languages known. Data pertaining to these four variables are presented below for: all subjects pre-tested (Table 1) and for those subjects reaching

the first post-test (Table 2). Data for individual subjects, on which these statistics are based, are available in Appendix I.

Education level is expressed in terms of the level at which studies have been *completed*, where: 1 = secondary school only, 2 = university studies at the bachelor's level, 3 = master's level and 4 = doctoral level. The number of languages known by a subject includes any language for which the subject reported even basic ability, in any or all of the four skills (reading, writing, listening speaking).

TABLE 1

Descriptive statistics for sex, age, education level, and number of languages known for all subjects pre-tested.

Variable		Group D (n=32)	Group M (n=33)
Sex	% male	44	45
	% female	56	55
Age	mean	29.00	35.00
	sd	10.06	12.37
	range	19-65	20-61
Education level	mean	1.66	2.27
	sd	0.55	0.98
	range	1-3	1-4
Languages known	mean	3.00	3.00
	sd	0.92	1.50
	range	2-6	1-9

TABLE 2

Descriptive statistics for sex, age, education level, and number of languages known for those subjects reaching post-testing.

Variable		Group D (n=15)	Group M (n=28)
Sex	% male	47	46
	% female	53	54
Age	mean	31.00	37.00
	sd	12.48	12.52
	range	20-65	20-61
Education level	mean	1.80	2.39
	sd	0.56	0.96
	range	1-3	1-4
Languages known	mean	3.00	3.00
	sd	0.66	1.57
	range	2-4	1-9

As these tables show the proportions of male and female subjects in the two groups were very similar at the outset, and remained so throughout the course. While the age range within each group was much the same, the mean age of the subjects in Group M was higher by six years than that of Group D. The two groups differed as well, in both their initial and final forms, in terms of educational level. Only one subject in Group D had completed studies at the master's level. The rest had either completed, or were currently engaged in, university studies at the bachelor's level. By contrast, in Group M, five of the subjects held doctoral degrees, and six had

completed studies at the master's level, making the overall educational level of Group M somewhat higher than that of Group D. The mean number of languages known is the same for both groups: three. The difference in range can be accounted for by the fact that one of the Group M subjects was a monolingual English speaker and another reported some familiarity with nine different languages. The rest, however, fall into the same 2-6 range as is reported for Group D.

4.1.2 Test scores: German comprehension, and language learning aptitude

As previously stated, the "Basic German Language Comprehension Test" used as the pre-test in this study was the same as that used in the pilot study done in 1988. It should be noted, however, that for the present study changes were made in the scoring system of this test. While the listening section was straightforward enough to be marked objectively on a right/wrong basis, the original scoring system for the translation section, which simply awarded two points for each sentence translated, proved difficult to employ with any degree of objectivity or consistency when partial translations were made. Under the system developed for the current study, a specified number of points (or partial points) was given for each *word* translated, rather than each *sentence*. In those few cases where idiomatic expressions were used that could not be translated word for word (e.g., *Es tut mir leid* = I'm sorry), points were awarded for any appropriate English translations. Under this new marking scheme, a total of 75 points was allotted to the translation part of the test and 25 to the listening test.

However, the instructional timetable for this study gave more or less equal classroom time to listening and reading activity, and it was felt that the tests used should reflect this division of time. For this reason, an additional change was made: the original weighting of the listening and translation sections of the pre-test (25% and 75% respectively) was modified to make the two parts more equivalent in importance. (This change also made the pre-test more consistent with the RSA achievement test used as a post-test, in which equal points were given to listening comprehension and reading.) Scores out of 75 on the translation section were converted to scores out of 25, and the listening and translation scores were added together generating a total pre-test score with a maximum of 50.

In addition to their pre-test score for comprehension of German, subjects were given a score on each of the two language learning aptitude tests: out of a maximum of 52 for the OERG test, and out of 30 for the Esperanto test. Descriptive statistics for each of these three tests are presented below. Once again, data are given for all subjects pre-tested (Table 3), and all subjects post-tested (Table 4). Scores for individual subjects, as well as each subject's post-test status, are available in Appendix J.

TABLE 3

Descriptive statistics for German comprehension pre-test, and OERG and Esperanto aptitude tests for all subjects pre-tested.

Group		Pre-Test	OERG	Esperanto
D n=32	mean	5.06	45.20	22.56
	sd	3.86	5.20	4.58
	range	0-15	34-52	14-30
M n=33	mean	7.18	45.07	26.15
	sd	6.12	4.02	3.99
	range	1-24	35-51	14-30

TABLE 4

Descriptive statistics for German comprehension pre-test, and OERG and Esperanto aptitude tests for all subjects who reached post-testing.

Group		Pre-Test	OERG	Esperanto
D n=15	mean	4.19	45.00	21.00
	sd	2.60	5.52	4.28
	range	0-9.5	34-52	14-30
M n=28	mean	7.05	45.12	25.82
	sd	5.60	4.25	4.16
	range	1-18	35-51	14-30

As Table 3 shows, in terms of mean test scores, Group M performed slightly better than Group D on both the German comprehension pre-test, and the Esperanto

aptitude test. There is very little difference in the mean scores of the two groups for the OERG aptitude test. From Table 4, one can see that these same differences existed between the two groups in their final, reduced forms (at the time of post-testing).

4.1.3 Variables relating to subject interest/motivation

Given the important difference in the dropout rate between Groups D and M (53% versus 15%), it seemed appropriate and interesting to add to the initial analysis some of the data from questions on the biographical data form which were intended to probe the subjects' motivation for, and interest in learning German. The following items were chosen as possible indicators of the subjects' motivation for the course at the outset:

- a) Item 10b on the biographical data form, which asks subjects to rate on a scale of 1 to 10 their interest in learning German.
- b) Item 10c, in which subjects rate on a scale of 1 to 10 the likelihood of their visiting a German-speaking country within the next year.
- c) Item 12, past visits by the subjects to German-speaking countries.
- d) Items 13-15 (combined) whether or not the subjects have any German-speaking relations or friends.

These variables were analyzed for all subjects beginning the course in each group, and data pertaining to them is presented in Table 5, below. The first row of the table simply provides the mean value for each group of the subjects' self-rated interest in learning German. The second row ("probable visit...") gives the percentage of subjects in each group who rated at more than 50% their chances of visiting a German-speaking country

within the next year. Row three shows the percentage of subjects in each group who had visited a German-speaking country in the past, and row four shows the percentage of subjects having German-speaking relatives or friends. Values for individual subjects are presented in Appendix K.

TABLE 5

Data for questions related to interest/motivation

Variable	Group D (n=32)	Group M (n=33)
Mean interest rating (1-10)	7.75	8.25
Probable visit within one year	36%	44%
Past visit(s)	56%	55%
German-speaking relatives/friends	75%	76%

4.2 Analysis of Post-test Scores

As previously explained, the "Basic German-Language Achievement Tests" which were used as post-tests in the study, had the same form as the pre-test of German comprehension, and the same changes had to be made to the marking system (see 4.1.2, above). In the case of these tests, which were slightly longer than the pre-test, subjects were initially given a mark out of 120 for the translation section of each test. This score was then converted to a score out of 40. The listening section was also given a mark out

of 40, for a total score out of 80. For the first two post-test sessions, each subject was also given a score out of 80 on the RSA achievement test. These two post-test scores were added together, generating a grand total post-test score out of 160 for post-tests one and two. Note that as only the BGLAT was administered at the third post-test session, the total score for post-test three is out of a maximum 80 points. Table 6, below, shows descriptive statistics for each group at each post-test session. Scores for individual subjects on each of the post-tests are presented in Appendix L.

TABLE 6

Descriptive statistics for post-test sessions 1 to 3

Group		Post-Test 1 (max = 160)	Post-Test 2 (max = 160)	Post-Test 3 (max = 80)
D	mean	107.28	105.06	54.85
	sd	22.40	25.31	13.8
	range	58-139	58-146	27-70
	n=	15	11	8
M	mean	109.05	102.51	47.69
	sd	24.38	27.97	16.27
	range	44-150	49-145	13-73
	n=	28	21	18

In terms of mean raw test scores, then, Group M performed only slightly better than Group D on the first post-test (by a difference of 1.77 points out of 160). On the second post-test there is again only a small difference between group means (2.55 points), this time in favour of Group D. On the third post-test, Group D again

performed better than Group M with the gap between the mean scores for the two groups widened to 7.16 points (out of 80).

4.3 Tests of Significance

The following tests were carried out in order to determine whether the observed differences between the groups were statistically significant:

1. a t-test of the difference between mean scores for the two groups on the German comprehension pre-test.
2. multivariate analyses of variance (MANOVA) for differences between the two groups on other pre-instructional variables (aptitude scores, age, education level, number of languages known, and reported interest level).
3. analyses of covariance (ANCOVA) for differences in scores on the first and second post-tests.

Tests for all pre-instruction variables were done twice: first, using scores for all subjects pre-tested, and second, using only the scores for those subjects who reached post-testing. No analysis of covariance was done for the third post-test, due to the small number of subjects involved.

4.3.1 T-test data for pre-test of German comprehension

Results of the t-tests carried out showed no significant difference between Groups D and M in scores on the German comprehension pre-test, either for: all subjects pre-tested ($t=-1.669$; $df=63$; $p=.1001$), or for those subjects in each group

reaching post-testing ($t=-1.867$; $df=41$; $p=.0691$).

4.3.2 MANOVA data for other pre-instruction variables

Multivariate analyses of variance were carried out to test for significant differences between the groups on the following six variables: the OERG aptitude test, the Esperanto aptitude test, age, education level, number of languages spoken, and self-rated interest level for learning German. Once again, two analyses were done: first, using data for all subjects who were pre-tested, and second, only for those subjects who reached post-testing.

Multivariate test statistics indicated that there were, in fact, significant differences between Groups D and M, both at the time of pre-testing ($F=6.327$; $df=6,50$; $p=0.0$), and at the time of the first post-test ($F=5.497$; $df=6,31$; $p=.001$). The results of univariate F tests, indicating from which of the six variables the significant differences stem, are presented in Tables 7 and 8 below.

TABLE 7

Univariate F-test results for all subjects pre-tested: OERG and Esperanto aptitude tests, age, education level, number of languages known, and self-reported level of interest in learning German.

Variable	SS	DF	MS	F
OERG	1.113	1	1.113	0.051
Error	1210.817	55	22.015	
Esperanto	241.458	1	241.458	13.354**
Error	994.472	55	18.081	
Age	599.371	1	599.371	4.575*
Error	7205.506	55	131.009	
Education level	7.752	1	7.752	12.831**
Error	33.230	55	0.604	
Languages known	0.306	1	0.306	0.187
Error	89.940	55	1.635	
Interest level	2.103	1	2.103	0.654
Error	176.739	55	3.213	

**p < .01

*p < .05

From Table 7 we can see that Groups D and M differed significantly at the outset (all subjects pre-tested) in terms of scores on the Esperanto aptitude test, level of education, and to a slightly lesser degree, age. When only those subjects who reached post-testing are considered (Table 8, below), the age difference between the two groups is no longer statistically significant. The differences in Esperanto test score and education, however, remain at a significant level.

TABLE 8

Univariate F-test results for those subjects reaching post-testing: OERG and Esperanto aptitude tests, age, education level, number of languages known and self-reported level of interest in learning German

Variable	SS	DF	MS	F
OERG	0.061	1	0.061	0.003
Error	803.833	36	22.329	
Esperanto	281.549	1	281.549	18.659**
Error	543.214	36	15.089	
Age	237.669	1	237.669	1.441
Error	5936.673	36	164.908	
Education level	4.511	1	4.511	6.668*
Error	24.357	36	0.677	
Languages known	1.449	1	1.449	0.787
Error	66.262	36	1.841	
Interest level	0.061	1	0.061	0.023
Error	95.833	36	2.662	

**p < .01

*p < .05

4.3.3 ANCOVA data for post-test scores

Analyses of covariance were performed on scores from the first and second post-tests to determine whether Groups D and M differed significantly in terms of either initial achievement (post-test 1) or retention (post-test 2). This procedure was chosen as that most likely to be sensitive to the relatively small observed differences in post-test scores, as well as to control for initial differences among subjects.

4.3.3.1 Post-test one

As shown in table 6, in terms of mean raw scores, Group M performed slightly better than group D on the first post-test. It was considered, however, that achievement in the course would be dependent, at least in part, on entry-level knowledge of German: an area in which there was a fair amount of variation among individual subjects. For that reason, pre-test score was chosen for use as a covariate in the analysis of scores from the first post-test. Preliminary analyses indicated that a significant positive correlation did indeed exist between pre-test score and score on the first post-test ($r = .605$; $df = 41$; $p < .01$), and that homogeneity of slope could be assumed between the two variables ($F = .015$; $p = .904$). The results of this first ANCOVA, presented in Table 9, below, show that post-test score was, in fact, significantly dependent on pre-test score. However, there is no significant difference between the two treatment groups in terms of post-test score, even when pre-test scores are considered in the analysis.

TABLE 9

Results of ANCOVA for post-test one, with pre-test as covariate

Source	SS	DF	MS	F
Treatment	442.332	1	442.332	1.245
Pre-test	8857.939	1	8857.939	24.931*
Error	14212.039	40	335.301	

* $p < .01$

However, in addition to differences among subjects on pre-test score, there were

also initial differences between the two groups in terms of Esperanto test score and education level (Table 8). The group M subjects scored significantly higher than those in Group D on the Esperanto aptitude test, and they also had a significantly higher mean level of education. Correlation coefficients were calculated, and confirmed that both of these variables were significantly related to performance on the first post-test (for Esperanto test, $r=.605$; $df=41$; $p<.01$, and for education level $r=.361$; $df=41$; $p<.05$). That Group D began with lower scores on these pre-instructional variables, and finished with a comparable post-test score, suggests that, in a sense, they actually achieved *more* than Group M. One can therefore hypothesise that had the two groups been equivalent on these variables at the outset, Group D would have achieved *higher* post-test scores than Group M.

In order to test this hypothesis, a second analysis of covariance was carried out for the first post-test, with Esperanto and education level scores added to the analysis as covariates. Once again, preliminary tests indicated that homogeneity of slopes could be assumed for both variables: Esperanto test ($F=.358$; $p=.553$), and education level ($F=.997$; $p=.324$). The results of this second ANCOVA are presented in Table 10.

TABLE 10

ANCOVA results for the first post-test with pre-test, Esperanto aptitude test, and education level as covariates

Source	SS	DF	MS	F
Treatment	3382.980	1	3382.980	15.740**
Pre-test	6433.493	1	6433.493	29.934**
Esperanto	5274.361	1	5274.361	24.541**
Education	913.942	1	913.942	4.252*
Error	8167.132	38	214.925	

**p < .01

*p < .05

From Table 10, we can see that all three covariates did, in fact, have a significant effect on post-test score. More importantly, we now see a significant effect of treatment on post-test score. These results, then, provide support for the hypothesis stated above. They indicate that when post-test scores are adjusted to take into account differences in Esperanto and education scores, as well as pre-test score, there is a highly significant difference between the mean post-test scores of the two groups, in favour of Group D.

4.3.3.2 Post-test two

The analysis of variance technique was also used in the analysis of scores from the second post-test. In this case, score on post-test one was used as the covariate, to determine whether one of the groups had retained more than the other since the first post-test. Once again, correlation coefficients were computed, and confirmed that

there was a significant positive relationship between the two scores ($r=.909$; $df=30$; $p<.01$). Preliminary tests for homogeneity of slopes indicated that a common slope could also be assumed ($F=.672$; $p=.419$). The results of the analysis are presented in Table 11, below.

TABLE 11

ANCOVA results for the second post-test with post-test one as covariate

Source	SS	DF	MS	F
Treatment	0.838	1	0.838	0.006
Post-test 1	18197.265	1	18197.265	136.825*
Error	3856.898	29	132.996	

* $p<.01$

As table 11 shows, score on the second post-test was significantly related to score on post-test one, but not to treatment group. In other words, there was no significant difference between the two groups in terms of scores on the second post-test, when their respective scores on the first post-test were taken into account.

CHAPTER 5

DISCUSSION & CONCLUSIONS

5.1 Main Findings

The purpose of the present study was to determine whether or not intensive and non-intensive instruction (as previously defined) resulted in differences in either a) level of attainment or b) retention of learning in German comprehension. Let us now consider the results of the study as they relate to each part of this question.

5.1.1 Time distribution and attainment in FLL

Taken together, the various results of this study relating to attainment suggest that distributed instruction was more effective than massed instruction in promoting achievement in German language comprehension.

No significant difference was found between the *actual* mean scores obtained by Groups D and M on the first post-test. However, the results of tests involving pre-instructional variables showed that Group M had begun the course with significantly higher scores on two measures which were positively related to achievement: the Esperanto aptitude test, and education level. In light of these results, the hypothesis was put forward that had the two groups been equivalent on these variables at the outset, Group D would have achieved *higher* post-test scores than Group M. Results of the analysis of covariance in which Esperanto test score and education level were included as covariates provided support for this hypothesis, showing that when post-test scores were adjusted on the basis of these pre-

instructional differences, there was, in fact, a significant difference between the *estimated* post-test scores of the two groups.

5.1.2 Time distribution and retention

The subjects of this study were first tested for retention of German comprehension four weeks after completing the course (post-test 2). Although there was a tendency for Group D subjects to achieve slightly higher scores than Group M subjects on the second post-test, the magnitude of the difference did not prove to be statistically significant when these scores were considered in relation to scores on the first post-test. The results of the analysis of covariance performed showed no significant difference between the two groups in the amount of learning that they had retained since the first post-test. Up to this point then, neither distributed nor massed instruction was clearly more effective in promoting retention of learning.

At the third post-test (12 weeks after the end of the course) Group D again achieved a higher mean score than did Group M, and this time the difference between the scores for the two groups was of a larger magnitude. This suggests that more important differences might be found between the effects of intensive and non-intensive instruction when longer-term retention is examined. Unfortunately, data from the third post-test are available for only a small number of subjects, and no significance testing was done. Thus, while these data give rise to questions regarding the effects of different time distributions on more long-term retention of learning, they can not be used to draw any firm conclusions.

5.1.3 Total exposure time

An important point to keep in mind in evaluating the results of this study is that although the two groups had exactly the same amount of *instructional* time, no attempt was made by the researcher to prevent the subjects from studying outside of class time. It was felt that to do so would not only be unrealistic, but would also produce an unnatural language learning situation, bearing little resemblance to "real" language courses in which more time is naturally available for outside study under non-intensive conditions. As pointed out in chapter two, this increased consolidation or "digestion" time has, in fact, been cited as one of the major advantages of non-intensive courses. Thus it was simply accepted from the outset that students in the distributed group, who had so much more time available (11 weeks), may have more out-of-class exposure time than those in the massed group, whose course lasted only one week.

In order to determine whether or not this was true, and if so, to what degree, all subjects were asked to keep a diary recording any exposure to German outside of class. The information provided by these diaries shows that, over the duration of their respective courses, Group D did, on the whole, spend more time working on or using their German than did Group M. Average out-of-class exposure time for Group D subjects amounted to just over 15 hours, while for Group M, it was only slightly more than 4 hours. In both groups there was a great deal of variation: some subjects did absolutely no extra work, while others did a great deal.

The possibility of attempting to use extra study time as a variable in the

analysis of post-test scores was considered, but was rejected for a number of reasons. First, there was a great deal of variety in the types of practice activities recorded by subjects. These ranged, for example, from watching German movies, to practicing conversations with German-speaking friends, to doing written exercises in the text, to listening to music in German. Attempting to determine the relative importance of these various activities in terms of their effect (if any) on achievement, would have been, if not impossible, certainly beyond the scope of this thesis. Second, no significant correlation was found between extra exposure time and post-test score either for the individual groups, or overall. Thus while the superior performance of group D on the first post-test may be partly due to the fact that they had more time available, and thus, more total hours of exposure to German, it seems likely that this is not the only factor involved.

In any study of retention, one must consider the possibility that the results have been influenced by events occurring between measurement times. In this study, the potential problem was that one group would seek out or encounter more exposure to German than the other between either the first and second, or the second and third, post-tests. Once again, the language-learning diaries revealed that this was, in fact, the case. None of the Group D subjects reported any study of, or exposure to, the German language in the month that passed between the first and second post-tests. The Group M subjects reported an average of just under three hours of study over the same time period. For the two months between the second and third post-tests none of the Group D subjects reported any exposure to German, except for one person who

spent a week travelling in Germany. As for Group M, five people reported an average of just over two hours of study during these two months. An additional three reported visits to German-speaking countries.

Given the small amounts of exposure time involved, and the long periods over which they were spread, it seems unlikely that they would have had any great influence on the scores from the second and third (retention) post-tests. Any effect they did have, would logically have been to the advantage of Group M. In other words, there is a possibility that had Group M not had this between-test exposure to German, their retention scores might have been lower than those of Group D by even more than the observed amount.

5.2 Subsidiary Findings

As yet, there has been no discussion of the results pertaining to pre-instructional variables for the subject groups in their initial forms (all subjects pre-tested) which are presented in tables 1, 3, 5 and 7 of chapter four. While these data are not relevant to the analysis of post-test scores (since many of these subjects did not complete the post-tests), they were included in this document because they may shed some light on an interesting problem which arose during the experimental course, and which is in itself worthy of further discussion.

Two very similar groups of subjects took the same course, using the same materials and instructional methods, but different time distributions. In the intensive group, 84% of the subjects completed the course. In the non-intensive group, only

46% completed the course. The question that needs to be raised, then, is: why?

Insofar as course completion (or non-completion) would naturally seem to be related to motivation, the first place to look for an answer to this question would be in the data pertaining to subject motivation and interest in learning German. Table 5 (p.43) presents a summary of the data gathered from those questions on the subject biographical data form which were designed to elicit such information. Looking at this table, we see that there was little or no difference between the subjects of groups D and M in terms of past visits to German-speaking countries, or possibility of contact with the German language through German-speaking relatives or friends. The two groups *did* differ in terms of how highly the subjects rated their interest in learning German on a scale of one to ten, with the mean rating for group M (8.25) being slightly higher than that of group D (7.75). However, the magnitude of this difference did not prove to be statistically significant. Finally, there was a difference between the two groups in the proportion of the subjects who felt there was more than a 50% probability of their visiting a German-speaking country within the next year (group D=36%, group M=44%). To the degree that this is accepted as an index of instrumental motivation for learning German, one might speculate that more of the group M subjects were motivated to complete the course. However, once again the absolute magnitude of the difference was very small, and in any case half of those subjects in group D who rated their chances of a visit at more than 50%, dropped out of the course nonetheless.

Tables 1, 3, and 7 together show that while there were differences between

groups D and M relating to other pre-instructional variables, only the differences in education level (group D mean = 1.66, group M mean = 2.27) and mean Esperanto test scores (22.56 vs. 26.15) were statistically significant. It seems unlikely that either of these differences could account for the increased dropout rate in group D. Although the data have not been analyzed extensively, a preliminary examination of mean and individual scores on these two variables revealed no apparent pattern linking either of these variables to non-completion of the course.

If the higher rate of attrition in group D cannot be explained by any differences inherent in either the characteristics of the subject groups, or the materials and instructional methods used in the language course, it seems reasonable to argue that it is, in some way, a function of the time distribution itself. It may be, for example, that students simply find it easier to maintain a commitment to a short-term course for which they have set aside a clearly-defined "chunk" of time, than to a long-term course with no clear end in sight, especially when outside obligations or problems arise. It may also be that a different learning or social dynamic operates in situations of intensive learning, making intensive courses more motivating to the students involved, and that one manifestation of this increased motivation is continued attendance in the course. A more in-depth study of the qualitative data gathered (i.e., subjects' comments and feelings about the courses, and their reasons for abandoning) is planned for the future, and may shed some light on these and other possible explanations for the differential dropout rate in the two courses.

5.3 Present Findings versus Previous Findings

So far, the results of this study have been considered only in isolation. In the following section we will look at how these results fit into and/or modify the picture of the time distribution factor created by evidence from previous studies and observations.

5.3.1 Time distribution and learning

As pointed out in chapter two of this thesis, there is a great deal of conflict in the literature regarding the effects of massed (intensive) and distributed (non-intensive) instruction. In general, a major contrast exists between the results of highly controlled studies, such as those which come from psychological research, and the findings of classroom research in foreign or second language learning. In the field of psychology, it is widely accepted that distributed instruction results in more learning than does massed. On the other hand, there is a strong conviction on the part of many educators that intensive instruction is more effective than non-intensive in promoting achievement in language learning. Most of the currently available findings from foreign language classroom research support this view. Only one researcher (Ainslie, 1985) reported different results. She found that there was a tendency for learners in distributed-time courses to perform better than those in massed-time courses.

Two possible explanations for the contradiction between these two bodies of evidence were alluded to in the literature review of this paper. The first is that the

"psychological" experiments, carried out, as they were, under laboratory conditions, bear so little resemblance to situations of classroom language teaching that their results are simply not applicable to foreign language learning (FLL). The second possible explanation is that in those classroom studies reviewed where intensive instruction was found to be more successful, the effects of time distribution were being confounded with the effects of other variables such as teaching method, or total instructional time. As has been pointed out, it was only in the previously-mentioned study by Ainslie (1985) that these variables were at least partially controlled.

In the present study, an attempt was made to reconcile the difference between these two bodies of evidence, by combining aspects of both types of studies: controlling possible confounding variables, such as instructional time and method, while working within the context of the language learning classroom. The results showed distributed instruction to be more effective than massed instruction in promoting achievement when instructional time and methods were held constant. Thus, the findings of this study accord with the findings of the many psychological studies of massed and distributed instruction. These results also corroborate the findings of Ainslie (1985) in which the same tendency was found, although to a lesser degree.

All of this taken together suggests that the second of the explanations proposed above may be the valid one: that the observed superiority of intensive language teaching in previous classroom studies was not the result of time distribution per se, but of some other instructional variable(s) on which the comparison groups differed.

In other words, I would suggest that the two types of studies are producing conflicting results because they are, in effect, investigating different issues.

5.3.2 Time distribution and retention

Regarding the effects of massed and distributed instruction on *retention*, very little evidence was found in the literature with which to compare the findings of the present study. Two psychological studies were reviewed (Keppel, 1964, and Bloom & Shuell, 1981) in which distributed instruction produced far better retention of verbal material learned, than did massed. In the present study, although there was a tendency for better retention on the part of non-intensive learners, the difference between the two groups was not statistically significant. However, as previously pointed out, the magnitude of the difference may have been decreased by the fact that the subjects of Group M sought, or received, more exposure to German between post-tests than the subjects of Group D.

5.3.3 Time distribution and attrition

A subsidiary finding of this study was that there was a much higher rate of subject dropout in the distributed time group than in the massed time group. Although, to my knowledge, the relationship between time distribution and attrition has never been specifically investigated, some pertinent results have been reported in the ILT literature. Ainslie (1985), for example, reports a 31% subject loss rate in her non-intensive courses, as compared to 19.5% in the intensive courses. In Ainslie's

study too, the instructional programs for the two groups were highly similar. In the same paper, she reports on a survey of institutions offering intensive courses: 92% of the institutions surveyed stated that they had observed virtually no dropout in intensive courses as compared to non-intensive courses. Thus, there is at least a small amount of existing evidence which corroborates the finding of the present study that students are more likely to complete an intensive course than a non-intensive course.

The earlier-mentioned possibility that this difference in attrition rate is the result of some superior "motivating force" associated with intensive learning situations would seem to be supported by the reports of educators who have been involved in ILT (see section 2.2 of this document). In almost every report reviewed, heightened motivation, student interest level and group cohesion are consistently cited as important advantages of the intensive approach. Clearly, though, much more evidence is needed to determine first of all, whether or not distributed instruction *is* consistently associated with higher attrition, and if so, why.

5.4 Limitations of Findings

There were certain problems that came up over the course of the experiment which constitute limitations of the study. First of all, although random assignment was the original goal for subject selection, it turned out not to be possible. Steps were taken to reduce the importance of this problem by gathering as much information as possible about the two groups, and using this information to adjust for

differences at the data-analysis stage. However, we can still not be entirely certain that the two groups did not, in some way, represent two different populations of learners.

Second, there was an extremely high rate of subject loss in Group D. While re-analysis of the pre-test data for those subjects remaining in both groups indicated that attrition did not have any major effect on the comparability of the two groups (if anything, it reduced the differences between them), the fact remains that the two subject groups were of unequal size at the time of post-testing, and the number in group D was relatively small.

There are also, of course, some limitations to the generalizability of the results of the present study. Probably the most important of these derives from the nature of the subjects involved. Despite the wide age range covered, and the diversity of the subjects' ethnic backgrounds, they were in a number of ways representative of a fairly specific and homogeneous group of learners: almost all of the subjects had completed, or were currently pursuing, university studies at at least the bachelor's level; many were involved in the field of language teaching, either as language teachers, or as students of TESL, and had an academic interest in the outcome of the study; all but one were to some degree multilingual; all had very limited initial proficiency in German. Thus, what is true of these learners may not apply, for example, to learners with less experience in formal education or language learning, to children, or to language learners at a more advanced level.

Other possible limitations to the validity of the study relate to the language

course offered. First, the course consisted solely of audio-visual presentations, and independent study: there was no language teacher present in the classroom. While this aspect of the experimental design was important in order to maintain uniformity of language instruction across groups, it does introduce some question as to the applicability of the results to more usual classroom settings. In addition, the course dealt only with listening and reading comprehension, and achievement was measured only in relation to these two skills. We can not assume that the same results would have been found had the other FL skills of speaking and writing been involved. Finally, it should be pointed out that different instructional materials may lend themselves better to distributed than to massed teaching (or vice-versa). Use of the **Deutsch Direkt!** instructional package, which was originally designed for distributed learning, may have introduced a bias in favour of Group D from the outset of the experiment.

5.5 Conclusions: implications for FLT and FLT research

The results of this study confirm that time distribution can, indeed, have an effect on learning in the FL classroom. Furthermore, they indicate that, given the same instructional materials and the same amount of instructional time, a distributed time pattern is more effective than a massed one in promoting achievement. The results of this study are corroborated by a large body of evidence from the field of psychology, and at least one similar FL classroom study. We can, therefore, be fairly confident in concluding that the effect observed in this study was not simply an

isolated occurrence, produced by some idiosyncrasy of experimental design.

Certainly, though, continued efforts should be made to investigate the effects of time distribution, apart from the effects of other classroom variables, to confirm (or refute) the validity of the present findings in other settings, with different subjects.

Results regarding the effects of time distribution on retention remain somewhat inconclusive. In this study, no significant differential effect was found. In the few other studies available, however, important differences have been found in favour of distributed time patterns. Here, then, is an area in which much further research is required before any firm conclusions can be drawn.

In considering the implications of these results for educational planning there are several important points to be made. First, as pointed out in chapter 2, it must be remembered that the time distribution variable is a continuous one. The present study investigated and compared only two points on this continuum. We can not necessarily assume that observations made about these two points would hold true if very different or more extreme time distribution patterns were used.

Second, even if distributed instruction does prove to be consistently more effective than massed in promoting attainment and retention of learning, this clearly would not mean that non-intensive courses are in all ways preferable to intensive ones. There may be other factors, apart from these two, which need to be considered. For example, in this study, although subjects in the non-intensive course were likely to be more successful than those in the intensive course in terms of achievement, they were also, for whatever reason, less likely to complete the course.

From a pedagogical point of view, this in itself may constitute a reason for offering an intensive course over a non-intensive one, at least in certain situations.

In short, we need to continue to investigate the effects of different time distributions, not only in terms of achievement and retention, but also in terms of affective and motivational aspects which may be equally as important. Only when a full picture is available will we be able to weigh the relative merits of the two instructional approaches and make informed choices about their appropriacy for different language learning situations.

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APPENDIX A
REGISTRATION FORM

Registration Form for German language video course

First Name _____ Family Name _____

Signature _____ Date _____

Address (Street) _____

City & Postal Code _____

Home Telephone(s) (_____) _____ - _____

Business Telephone(s) (_____) _____ - _____

On a scale of 0-10, where 10 = the competence of a native speaker, evaluate your ability in the four basic skills of the language(s) you know, mentioning whether these were learned informally (I), formally (F = by attending classes), or by a combination of both (I + F). Please put the initials MT beside your mother tongue(s). (Mother Tongue = first language(s) learned in childhood [ages 0 - 5].)

Language (MT?)	How Learned (I/F/I+F)	Understood (0 - 10)	Spoken (0 - 10)	Read (0 - 10)	Written (0 - 10)
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Reason(s) for wanting to learn German _____

APPENDIX B

BIOGRAPHICAL DATA FORM

Volunteers' BIOGRAPHICAL DATA

N.B. The data from this test will be reported in such a way as to protect the anonymity of each individual respondent. It will not be possible to identify any particular person while reading the results.

1. First Name _____ Family Name _____

2. Sex M ___ F ___ 3. Age _____ years 4. Occupation _____

5. University degrees _____

6. Were you assigned to this group by me? Yes ___ No ___

7. If you were not assigned, why did you choose this group? _____

8. If we define **intensive** formal language learning as **20 or more hours a week** of instruction, and **non-intensive** as **5 or fewer hours a week** of instruction, have you ever learned a language intensively? Please give details of which language, how intensive the program was, and how long it lasted

(You may include participation in an "Immersion" program, but not simply residence in a foreign country.)

9. Which kind of formal language learning do you believe is most effective [check one of the following in (a) and (b)]:

a) for most people?

- (i) intensive _____
- (ii) non-intensive _____
- (iii) no difference in effectiveness _____
- (iv) undecided _____

b) for you?

- (i) intensive _____
- (ii) non-intensive _____
- (iii) no difference in effectiveness _____
- (iv) undecided _____

10. On a scale of 0 (low) to 10 (high), how would you rate

a) your aptitude for learning foreign languages? _____

b) your interest in learning German? _____

c) your likelihood of visiting a Germanophone [=German-speaking] country

(i) during the next year? _____

(ii) during the next two years? _____

(iii) during the next five years? _____

11. What benefits do you hope to derive from learning some German?

12. Please list your visits to Germanophone countries in the past:

<u>Country(ies) visited</u>	<u>Year(s) visited</u>	<u>Total time spent (in days)</u>
-----------------------------	------------------------	-----------------------------------

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

13. Do you have any Germanophone blood relations ? Yes ____ No ____

14. Do you have any Germanophone relations by marriage?
Yes ____ No ____

15. Do you have any Germanophone friends? Yes ____ No ____

16. Do you have any questions about this experiment?

Thank you very much for your cooperation!

-Palmer Acheson and Mary Andress

APPENDIX C

TESTS OF LANGUAGE LEARNING APTITUDE

OERG test
Esperanto test

Oxford Educational Research Group
GERMAN APTITUDE TEST

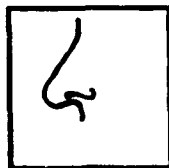
TEST 1 Pupil's sheet (i)

Name _____

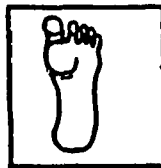
School _____

Class _____

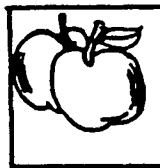
You are going to hear sixteen German words. As you hear each word, look at the picture which tells you what it means. You will hear each word twice and then you will have two minutes to look through all the words.



Nase



Fuss



Apfel



Paket



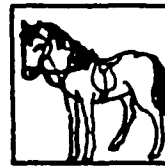
Hut



Knochen



Vogel



Pferd



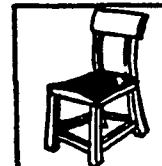
Schlüssel



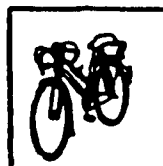
Ei



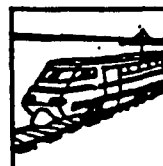
Löwe



Stuhl



Rad



Zug



Kirche

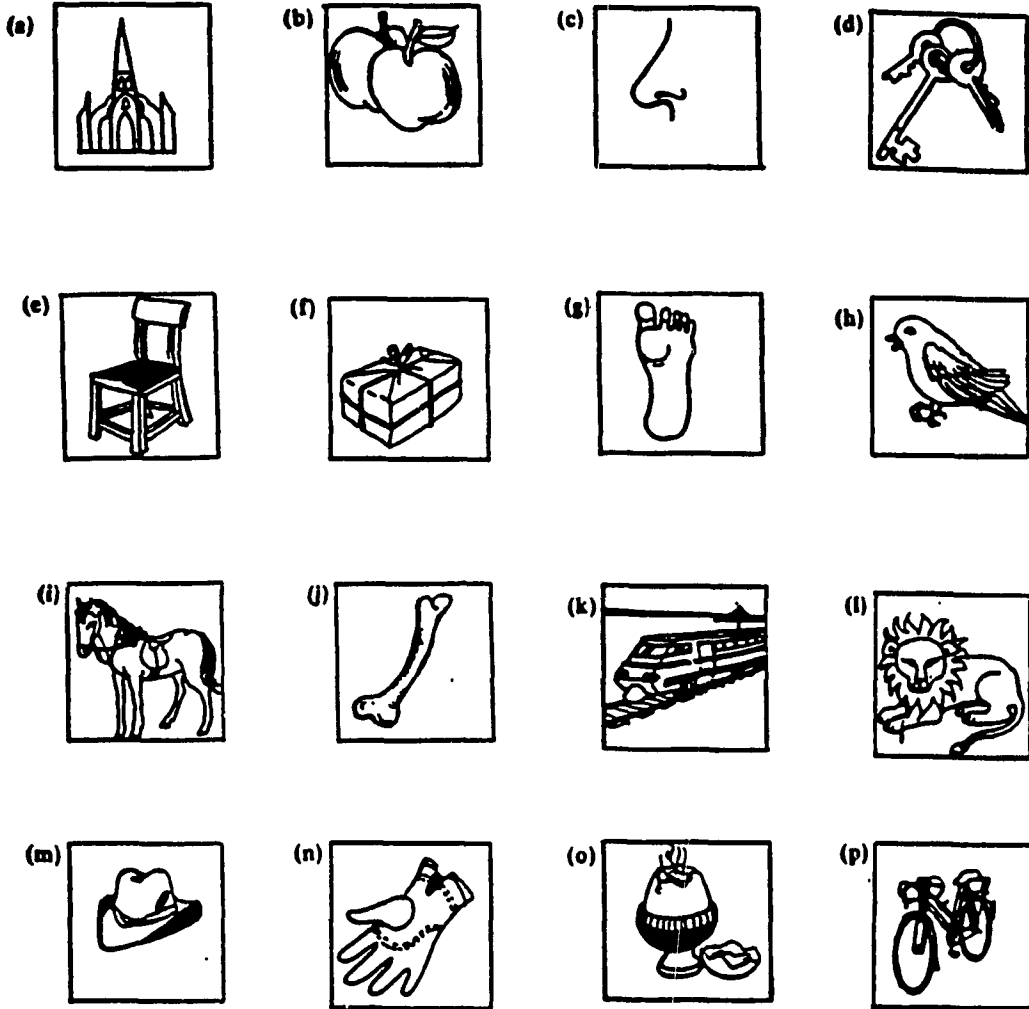


Handschuh

At the end of two minutes, you will be asked to turn over to look at the other side of this sheet.

TEST 1 Pupil's sheet (ii)

Now you will hear the words again, in a different order. When you hear word number one, write the letter of the picture you think goes with it beside number one. When you hear word number two, write the letter of the picture that goes with it beside number two, and so on.



Write your answers here

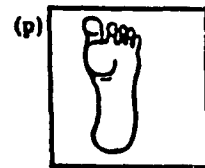
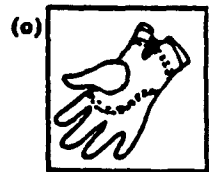
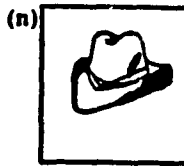
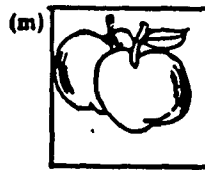
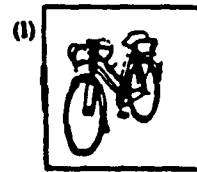
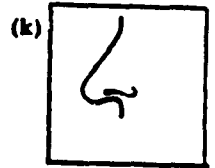
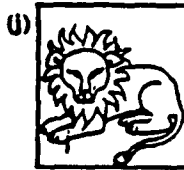
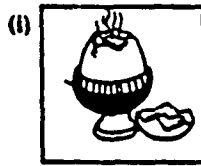
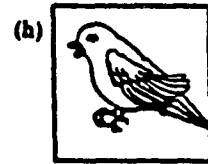
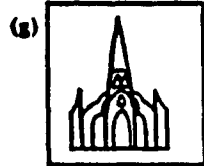
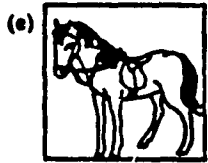
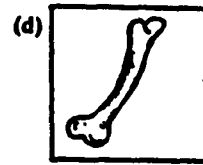
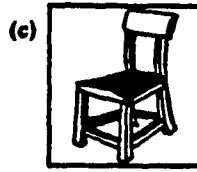
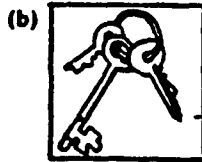
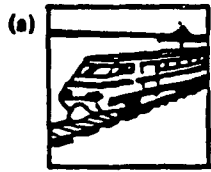
- | | | | |
|---------|---------|----------|----------|
| 1. | 5. | 9. | 13. |
| 2. | 6. | 10. | 14. |
| 3. | 7. | 11. | 15. |
| 4. | 8. | 12. | 16. |

TEST 1 Pupil's sheet (III)

Name

School

Class



1.

5.

9.

13.

2.

6.

10.

14.

3.

7.

11.

15.

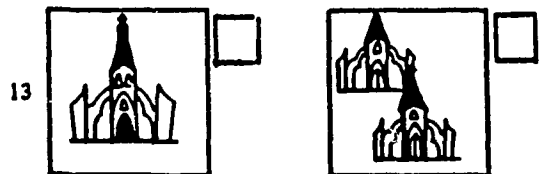
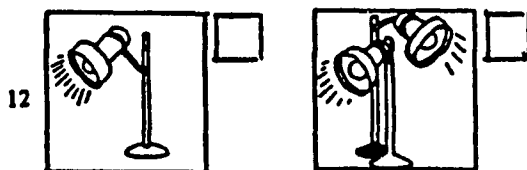
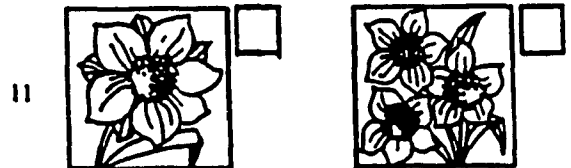
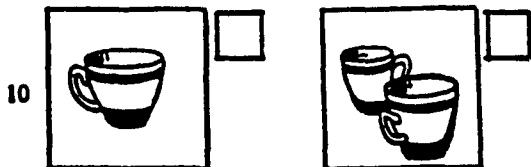
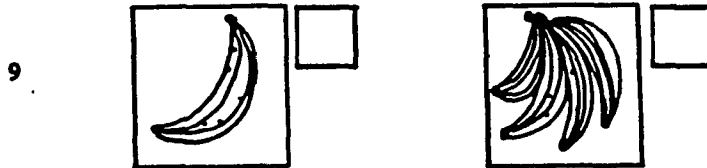
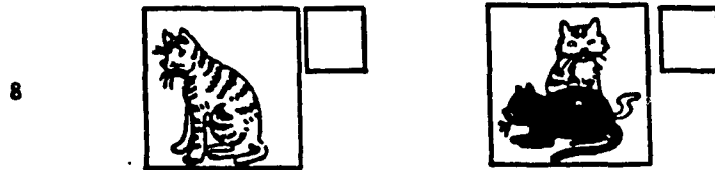
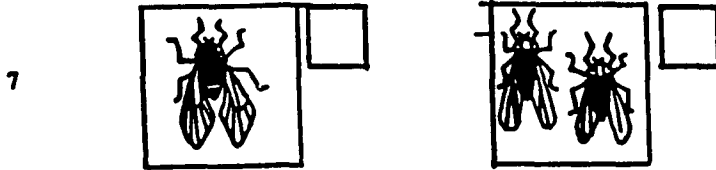
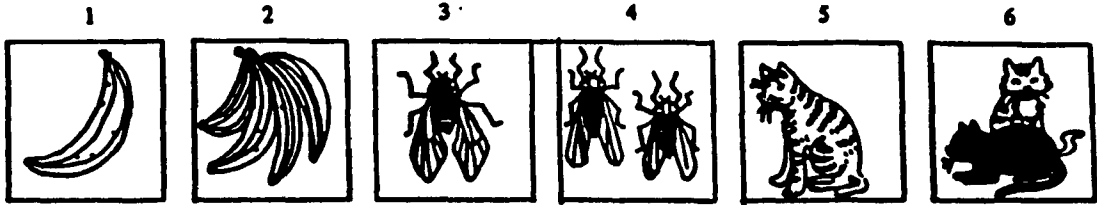
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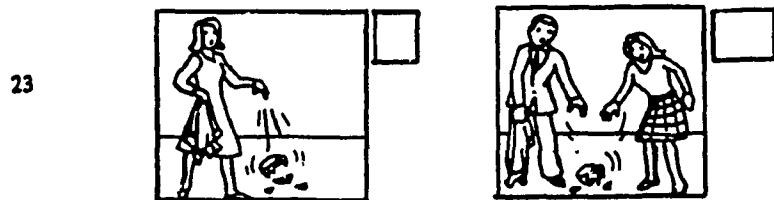
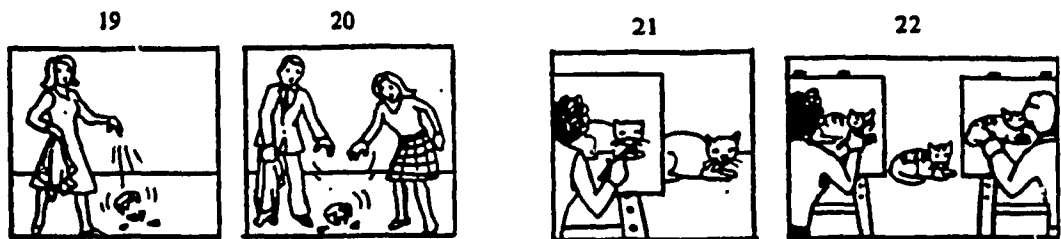
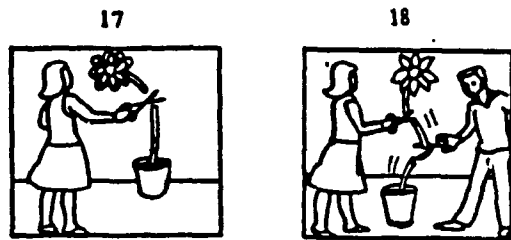
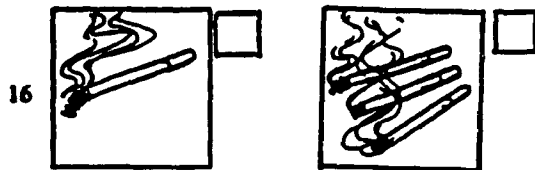
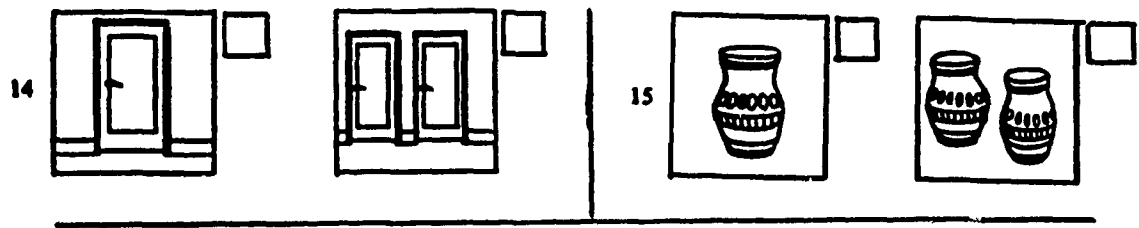
8.

12.

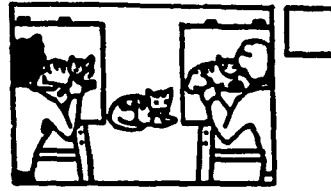
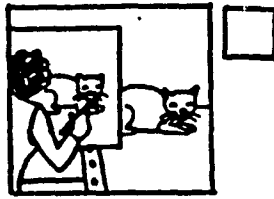
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TEST 2 Pupil's sheet

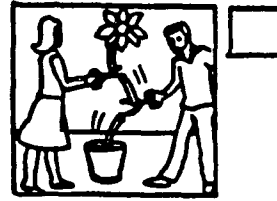
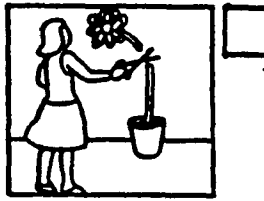




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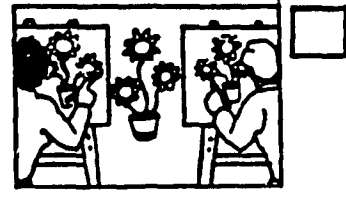
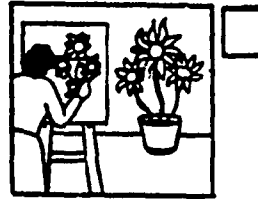
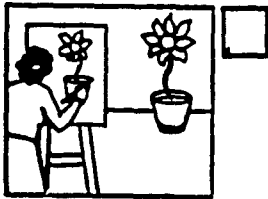
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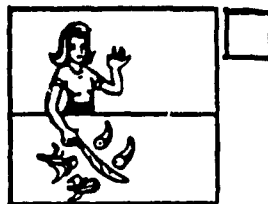
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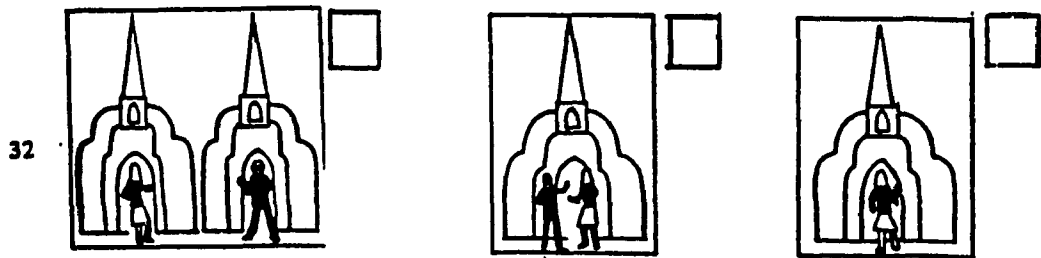
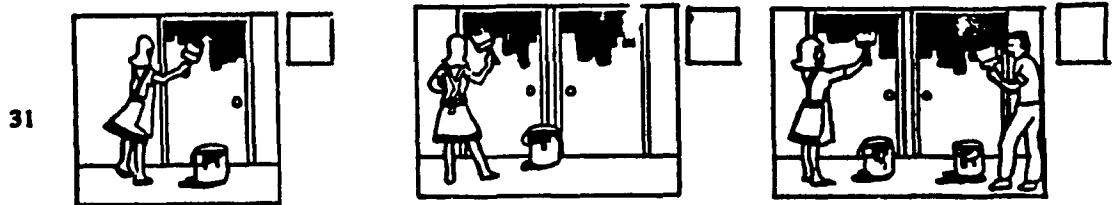
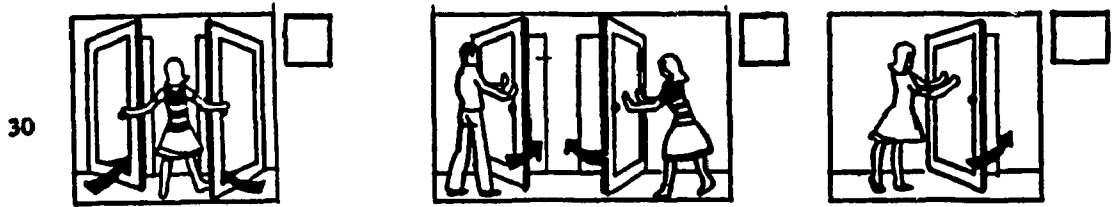


27



28





ESPERANTO APTITUDE TEST

This test not only measures your ability to learn a foreign language, but also relates to your verbal intelligence. It can give you a guide as to how successful you would be in learning a new language.

Below you will find two paragraphs. The first tells a story in English. The second is the English story translated into Esperanto. Esperanto was originally designed to be a universal language which would aid world peace by bestowing greater international governmental communication. Alas, it has certainly not

achieved its original aims, and it is a language nobody speaks.

Following the two paragraphs, you will find a series of English words. Indicate their Esperanto equivalent by using the information you have found in the paragraphs. Read both paragraphs before you begin. Give yourself 10 minutes for this test, and write your answers in the boxes alongside the questions.

A professor of zoology did not like it very much when his students were late at the beginning of his lecture, and at that time, interrupting his reading, he always expressed his annoyance to the tardy student. On one occasion, when the professor was reading about a horse, a certain tardy student entered the classroom. To the amazement of the students, contrary to his custom, the professor said nothing to the student and continued his reading. Finishing his reading about the horse, he said, 'Now, gentlemen, after the horse let us turn to the donkey,' and turning towards the latecomer, he said, 'I beg you sit down.' 'Do not get excited, Mr Professor,' replied the student. 'I can listen to a donkey standing, too.'

Profesoro de zoologio tre ne amis, kiam la studentoj malfruis al ka komenco de la lekcio, kaj tiam, interrompante sian legadon, li ĉiam esprimadis sian malplezuron al la malfruinta studento. Un fojon, kiam la profesoro legis pri ĉevalo, eniris en la legejon iu malfruinta studento. Al la ĉirpro de la studentoj, kontraŭ sia kutimo, la profesoro nenion diris al la studento kaj daurigis sian legadon. Fininte la legadon pri ĉevalo, li diris: - Nun, sinjoroj, post la 'ĉevalo' ni transiru al la 'azeno,' kaj, turninte sin al la malfruinta, li diris: Mi petas, sidiĝu - Ne maltrankviligu vin, sinjoro profesoro, respondis la studento, mi povas auskulti azenon ankaŭ starante.

Indicate the Esperanto equivalent for each of the following English words by writing the letter of the Esperanto in the space provided.

1. interrupting (a) legadon (b) esprimadis (c) daurigis
(d) interrompante (e) sian

2. student (a) miro (b) studentoj (c) studento (d) sinjoro
(e) malfruinta

- | | | |
|----------------|--|--------------------------|
| 3. reading | (a) legadon (b) miro (c) fininte (d) ĉevalo
(e) tre | <input type="checkbox"/> |
| 4. and | (a) al (b) la (c) sin (d) tiam (e) kaj | <input type="checkbox"/> |
| 5. were late | (a) komenco (b) malfruis (c) la (d) al (e) kiam | <input type="checkbox"/> |
| 6. was reading | (a) kiam (b) pri (c) eniris (d) legis (e) diris | <input type="checkbox"/> |
| 7. professor | (a) profesoro (b) post (c) legis (d) petas
(e) zoologio | <input type="checkbox"/> |
| 8. to | (a) la (b) sin (c) malfruinta (d) al (e) de | <input type="checkbox"/> |
| 9. nothing | (a) ne (b) nenion (c) mi (d) kutimo (e) diris | <input type="checkbox"/> |
| 10. gentlemen | (a) studentoj (b) post (c) sidigu (d) profesoro
(e) sinjoroj | <input type="checkbox"/> |
| 11. sit down | (a) petas (b) post la (c) sidigu (d) sin al
(e) maltrankviligu | <input type="checkbox"/> |
| 12. replied | (a) espirmadis (b) respondis (c) malplezuron
(d) sian (e) diris | <input type="checkbox"/> |
| 13. standing | (a) ankau (b) sian (c) starante (d) sinjoroj
(e) azenon | <input type="checkbox"/> |
| 14. his | (a) sian (b) sin (c) ĉiam (d) kaj (e) legadon | <input type="checkbox"/> |
| 15. the | (a) al (b) li (c) sin (d) in (e) la | <input type="checkbox"/> |
| 16. finishing | (a) legadon (b) kontrau (c) turninte
(d) fininte (e) nenion | <input type="checkbox"/> |
| 17. turning | (a) <u>fininte</u> (b) azenon (c) turninte (d) al (e) sin | <input type="checkbox"/> |
| 18. beginning | (a) komenco (b) malfruis (c) diris
(d) interrompante (e) auskulti | <input type="checkbox"/> |
| 19. about | (a) ĉevalo (b) kiam (c) pri (d) post (e) ankau | <input type="checkbox"/> |

- | | | |
|---------------|--|--------------------------|
| 20. of | (a) la (b) al (c) li (d) en (e) de | <input type="checkbox"/> |
| 21. tardy | (a) malfruis (b) malfruinta (c) malplezuron
(d) studento (e) turninte | <input type="checkbox"/> |
| 22. said | (a) nenion (b) studento (c) sian (d) sidigu
(e) diris | <input type="checkbox"/> |
| 23. after | (a) la (b) kiam (c) ĉevalo (d) post (e) azeno | <input type="checkbox"/> |
| 24. not | (a) ne (b) mi (c) non (d) in (e) nun | <input type="checkbox"/> |
| 25. I | (a) ne (b) ni (c) in (d) mi (e) li | <input type="checkbox"/> |
| 26. he | (a) mi (b) li (c) la (d) sia (e) ĉiam | <input type="checkbox"/> |
| 27. amazement | (a) al (b) azenon (c) miro (d) kutimo
(e) malplezuron | <input type="checkbox"/> |
| 28. horse | (a) diris (b) ĉevalo (c) azenon (d) legadon
(e) daurigis | <input type="checkbox"/> |
| 29. toward | (a) sin (b) tiam (c) la (d) al (e) nenion | <input type="checkbox"/> |
| 30. lecture | (a) lekcio (b) legadon (c) studento (d) kutimo
(e) komenco | <input type="checkbox"/> |

APPENDIX D

BASIC GERMAN LANGUAGE COMPREHENSION TEST

(Pre-test)

Basic German-Language Comprehension Test

1st Name _____ Family Name _____ Group _____

Part One: Listening Comprehension

(3 points x 8 + 1 = 25) _____ + Part Two = _____ TOTAL = _____

Listen to the eight sentences spoken by the experimenter. Each one instructs you how to get to somewhere shown on the map below. Circle the place indicated, and write the appropriate number beside its name in the box in the lower right-hand corner. One place is not mentioned. Which is it? (9) _____. Do not worry if your comprehension is quite limited. This test was designed to confirm that!

The map shows a town layout with the following features:

- Top:** BAHNHOF (Station) above Bahnhofplatz (Station Square).
- Left Side:** Rathaus (Town Hall) on Parkstraße. Below it is the Verkehrsverein (Traffic Club) near the STADTPARK (City Park).
- Right Side:** Hotel Parzival on Parzivalstraße. Below it is the STADTTHEATER (City Theater) on Goethestraße.
- Bottom:** Dom (Cathedral) on Domstraße. A Post (Post Office) is located near the Dom.
- Other Streets:** Nibelungenstraße runs horizontally between the Hotel Parzival and the Stadttheater.

Legend (bottom right):

- der Stadtpark
- der Bahnhof
- der Dom
- der Verkehrsverein
- das Rathaus
- das Stadttheater
- die Post
- die Nibelungenstraße
- das Hotel Parzival ...

An arrow points to the bottom right corner of the map with the text "Sie sind hier" (You are here).

Part Two: Reading Comprehension (3 points x 25 = 75)

Translate as many of the following sentences into English as you can. Note that there are three pages of sentences. Use the lines on the right of the page for your English translation. If you know only one or two words, translate them. Do NOT worry if many of them are too difficult for you. The letters between parentheses refer to the identity of the speakers, which you do not need to copy. A conversational exchange is represented by two letters in direct sequence (e.g. A followed by B, or M followed by N). There is no connection between sentence B and E, or N and Q.

1 (A) Entschuldigen Sie bitte, _____

2 wo ist das Rathaus? _____

3 (B) Das sehen Sie dort drüben. _____

4 (E) Haben Sie einen Stadtplan? _____

5 (F) Es tut mir leid, _____

wir sind ausverkauft. _____

6 (I) Was macht das zusammen, bitte? _____

7 (J) Das wären drei Mark achtzig. _____

8 (M) Haben Sie ein Einzelzimmer _____

mit Bad? _____

9 (N) Mit Bad habe ich leider _____

10 keine Einzelzimmer mehr. _____

11 (Q) Welchen Tee trinken Sie _____

am liebsten? _____

12 (R) Einen kräftigen Ostfriesentee. _____

13 (U) Wie kommen wir nach Bremen? _____

14 (V) Das ist ganz einfach! _____

Immer geradeaus! _____

15 (Y) Wann stehen Sie morgens auf? _____

16 (Z) Viertel nach vier ungefähr. _____

17 (A) Ich wohne zu Hause _____

bei meinen Eltern. _____

18 (D) Der Arzt bestimmt, _____

was man essen darf.

19 (G) Man kann

einen Spaziergang machen.

20 (J) Was für Trauben sind das hier?

21 (M) Was gefällt Ihnen

an dieser Arbeit?

22 (P) Ich lese gern Horrorgeschichten.

23 (S) Die Straßen wurden nicht

für Autos gebaut.

24 (V) Sie ist eine der wichtigsten

25 gotischen Kirchen

in Deutschland.

APPENDIX E

RSA/BBC ACHIEVEMENT TEST FOR DEUTSCH DIREKT!

**THE ROYAL SOCIETY OF ARTS
EXAMINATIONS BOARD
RSA/BBC ACHIEVEMENT TEST FOR DEUTSCH DIREKT!**

PART III: LISTENING

CANDIDATES QUESTION PAPER/ANSWER SHEET

Candidate to fill in:

Centre No. **Centre Name**

Candidate No. **Candidate Name**

Dictionaries may not be used

SITUATION

You are on holiday in the Würzburg area.

The passages that you are about to hear are examples of spoken German in a variety of situations. These situations are described in more detail overleaf.

You will hear each passage twice and may make notes during both readings. After hearing each passage you will be allowed time to answer the questions contained in your answer sheet.

All the instructions for this part are recorded on the tape.

Write your answers in English.

Passage A

During your stay in Würzburg you decide to spend a day in Bamberg and opt to go by train. You ask at the hotel reception which tram you take to get to the station.

- 1. Which number tram must you take?

.....

- 2. Where is the tram stop situated?

.....

Passage B

At the station you ask for two returns to Bamberg and also ask from which platform your train leaves.

- 3. How much do the train tickets cost you?

.....

- 4. Which platform must you go to?

.....

Passage C

In Bamberg you buy some postcards. Handing them to the shop assistant, you ask whether she sells stamps.

- 5. Why are two different prices (50/75 pfennigs) quoted?

.....

.....

- 6. How does she answer your query about stamps?

.....

Passage D

In the same stationers/bookshop you ask for a map of the town.

- 7. What does the assistant advise you to do?

.....

- 8. Why won't you be able to obtain a map immediately?

.....

Passage E

In Würzburg's tourist information office you ask about guided tours of the city. The assistant describes one such tour.

- 9. How many tours are there a day?

.....

- 10. Name three sights you see on the walk from the Residenz to the Festung Marienberg?

.....

.....

Passage F

11. In what way does she link the Residenz and the Festung Marienberg?

.....

12. Where is the Mainfränkische Museum situated?

.....

13. What will you find there of note?

.....

Passage G

Along with some other foreign and German visitors you go on a guided tour of the city. The young guide tells you something about himself.

14. What is he studying?

.....

15. Why precisely does he take on the job of guide?

.....

16. What does he particularly like about the job?

.....

Passage H

During the tour you chat with the guide and he tells you about his interests.

17. (a) Tick the boxes below which apply to him and add the one that isn't listed.
 (b) In the right-hand section add any further information that he gives you.

Theatre	<input type="checkbox"/>	
Bowling	<input type="checkbox"/>	
Reading	<input type="checkbox"/>	
Sport	<input type="checkbox"/>	
Music	<input type="checkbox"/>	
Photography	<input type="checkbox"/>	
	<input type="checkbox"/>	

**THE ROYAL SOCIETY OF ARTS
EXAMINATIONS BOARD**

RSA/BBC ACHIEVEMENT TEST FOR DEUTSCH DIREKT

MONDAY, 28TH APRIL, 1986

PART I READING

TEST:

CANDIDATES QUESTION PAPER/ANSWER SHEET

Candidate to fill in:

Centre No. **Centre Name**

Candidate No. **Candidate Name**

N.B. Candidates are advised to leave at least 15 minutes to complete the Writing Test, which appears at the end of this paper.

Part I. Reading

SITUATION

You and your partner go on holiday by car for two weeks to West Germany. Your destination is the "Romantische Straße". Amongst the towns that you visit during your stay are Rothenburg ob der Tauber, Würzburg, Regensburg and Bamberg.

The texts contained in the Candidates Reading Materials are examples of written German that you encounter during your stay. You must use them to answer the questions contained in this question/answer paper.

Write all your answers in ENGLISH.

TEXT A

At the end of your first day's journey to the "Romantische Straße" area of West Germany you find yourself in Düren near Cologne. You decide to stop for the night at a hotel and see an advertisement for the "Hotel Alte Post" (Text A).

- 1. List three of the advantages/facilities that the hotel offers each of the following:
 - (a) any one staying for just a night or two

.....

- (b) the local population

.....

TEXT B

You decide to stay the night at the "Hotel Alte Post" and are asked, by way of registration, to complete the form below.

- 2. Fill in your name etc in the appropriate places.

Name	
Vorname	
Geb.-Name	
Staatsangehörigkeit	
Postleitzahl/Wohnort	
Straße/Nr.	

TEXT C

You continue your journey and at lunch time stop for something to eat. From the menu (Text C) you choose between you the items listed below.

- 3. (a) How much did you pay for each item? Write the price in the box.

Chicken soup		Ham/Asparagus on Toast	
Veal		Pork chop	
Peas			

- (b) Had you really been hungry, you would have had "Fried egg and bacon" as well! How much does this dish cost?

.....

TEXT D

Later in your stay you'll be going to Regensburg. One of the things that you are looking forward to is a boat-trip on the Danube. You obtain some information (Text D).

4. Summarise the information about *prices* as regards children and any two other categories of passenger.

.....
.....
.....

5. What can visitors look forward to during the summer months—July to September?

.....

6. What does the boat company recommend?

.....

TEXT E

You arrive in Rothenburg ob der Tauber and, in order to plan in more detail what to see, you obtain a map of the town and some information on the attractions/historic buildings.

From the description contained in the brochure answer the questions below.

7. Where is the Old Grammar School situated?

.....

8. What two things do you learn about the White Tower?

.....

9. List five items from the description of the Town Hall.

.....
.....
.....

10. (a) What are you told about the age of the Burggasse?

.....

- (b) Why did it use to be known as "Hell"?

.....
.....

11. (a) How does one get into the "Historien-Gewölbe"?

.....

- (b) What will one find there?

.....

**THE ROYAL SOCIETY OF ARTS
EXAMINATIONS BOARD**

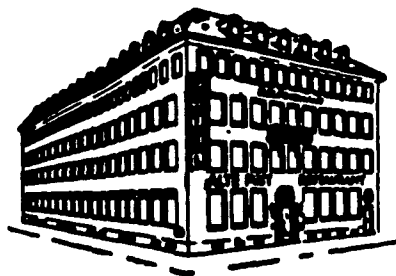
RSA/BBC ACHIEVEMENT TEST FOR DEUTSCH DIREKT

MONDAY, 28TH APRIL, 1986

PART I: READING

CANDIDATE READING MATERIALS

TEXT A



Hotel »Alte Post«

Josef-Schregel-Straße 36

516 DÜREN

Telefon 02421-15508

**45 Zimmer,
Dusche, Bad, WC**

—

Fernsehraum — Kegelbahn

—

**Gesellschaftsräume
für Festlichkeiten aller Art geeignet**

—

**Konferenzzimmer
bis zu 300 Personen**

—

Eigener großer Parkplatz am Haus

—

ca. 300 m vom Hauptbahnhof

Lieferung von kaltem Buffet auch außer Haus

TEXT C

Hotel Buchhornhof

Suppen

Hühnerbrühe mit Fleischeinlage	2.20
Ochsenschwanzsuppe gebunden	3.—
Gulaschuppe	3.—
Zuppa Pavese	3.—
Französische Zwiebelsuppe	3.—
Ochsenschwanzsuppe klar,	
Käsestange	3.60
Schildkrötensuppe „Lacroix“, Käsestange	4.—
Hamburger Hummersuppe	4.—
Schildkrötensuppe „Lady Curzon“,	
Käsestange	4.50

Eierspeisen

Spiegeleier mit Speck oder Schinken	4.50
Omelette au Parmesan	4.50
Rühreier „Agnes Sorel“	5.50
Eierpfannkuchen mit gemischtem Kompott	5.50
Kaiserschmarrn mit Rosinen,	
Mandeln und Preiselbeeren	6.—
Omelette mit Champignons	6.—

Käse

Camembert, Brot und Butter	3.40
Emmentaler, Brot und Butter	4.20
Gervais angemacht, Brot und Butter	4.20
Edamer, Brot und Butter	4.20
Boursin, Brot und Butter	4.60
Gemischte Käseplatte, Brot und Butter	6.50
Roquefort, Brot und Butter	6.—
Gorgonzola, Brot und Butter	6.—

Warme Vorspeisen

Blätterteigpastetchen „Königin Art“	5.30
½ Dtz. Weinbergschnecken „Maitre d'hotel“	6.80
Champignons à la creme auf Toast	6.80
Buchhorn-Schinkentost	6.80
Geflügeltoast à l'orange	7.—
Schinken-Spargel auf Toast,	
mit Sc. Hollandaise überbacken	8.—

Fleisch

Schweinekotelette	6.50
Rumpsteak	9.50
Kalbsteak	11.50
Filetsteak	13.—
Mixed Grill	12.—

Gemüse

Junge Erbsen	2.—
Pariser Karotten	2.—
Speckbohnen	2.—
Spargel Polonaise	5.50
Kleine Gemüseplatte	5.50
Gemüseplatte mit Spiegelei	6.50

Dessert

Gemischtes Eis	2.40
Ananas mit Kirsch oder Maraschino	2.70
Eisfrüchtebecher	4.—
Obstsalat mit Kirsch oder Maraschino	4.—
Pfirsich Melba	4.—
Coupe Danmark	4.—
Birne Helene	4.—
Palatschinken	4.—
Grand Marnier Halbgefrorenes	5.50
Vanille-Eis mit heißen Himbeeren	5.50



Tourist-Information



Bitte beachten:

- * Kinder von 6 bis 15 Jahren halber Fahrpreis · Kinder bis 6 Jahre – ohne besondere Platzbeanspruchung – frei · Hunde halber gewöhnlicher Fahrpreis · Fahrtunterbrechung nicht gestattet · Für Jugendgruppen gibt es eine ca. 20%ige Ermäßigung · Halbpriekarten für Familien und Senioren.
- * Vom 4. Juli bis 29. September musikalische Unterhaltung an Bord.
- * Es ist zu empfehlen, die Karten im Vorverkauf zu besorgen.

TEXT E

Rothenburg ob der Tauber



Sehenswürdigkeiten und Stadtrundgang

Rathaus (1). Das imposante Gebäude besteht aus zwei Teilen. Der vordere Renaissance-Bau wurde in den Jahren 1572—1578 errichtet. Die Arkaden am Marktplatz wurden 1681 hinzugefügt. Das gotische Rathaus mit dem Kaisersaal stammt aus der Zeit zwischen 1250 und 1400. Die beiden Gebäude sind durch einen Lichthof getrennt (sehenswertes Portal). Der Turm ist 60 m hoch.

Ehemaliges Gymnasium (4). Renaissance-Bau an der Nordseite des Kirchplatzes, erbaut 1589—1593.

Weißer Turm (5)

Errichtet im 12. Jh. als Teil der ältesten Stadtmauer.

Burggasse. Sie gilt als die älteste Gasse der Stadt; früher war sie teilweise vom Franziskanerkloster überbaut und daher dunkel und wurde deshalb auch „Höll“ genannt.

Historien-Gewölbe im Rathaus (11). Ausstellung von Gegenständen und Szenen aus der Zeit des Dreißigjährigen Krieges. Früher waren dort kleine Kremäden. Eingang im Rathaus-Lichthof.

Rothenburg ob der Tauber — zu jeder Jahreszeit
das besondere Erlebnis!

APPENDIX F

BASIC GERMAN LANGUAGE ACHIEVEMENT TESTS 1-3

Basic German Language Achievement Test # 1

1st Name _____ Family Name _____ Group _____

Part One (out of 40 points) _____ + Part Two - _____ TOTAL - _____

1 Listen to the four questions asked by Paul on the beach at Duhnen. They are repeated three times, but not necessarily in exactly the same order. **Write the questions in English in the spaces provided.**

a _____ ?

b _____ ?

c _____ ?

d _____ ?

2 What does Frau Hadrian want to know?
Write her two enquiries in English:

a _____ ?

b _____ ?

3 Joachim asks Frau Hadrian if she has eight different things. Beside each one given below, write "Yes" (oder "Ja") or "No" (oder "Nein"), according to whether she has one or not.

The pictures are not in the order of the questions.



- 4 What does the man want to buy _____
 How many? _____
 How much does he pay the woman? _____ DM
- 5 Where is the man going? _____
 How much is the ticket? _____ DM
 When does the train leave? _____
- 6 What does the man want? _____
 Has he been to this place before? _____
 What time is agreed upon? _____

Part Two (40 points)

Translate as many of the following thirty sentences into English as you can. (Use the lines on the right of the page.) The letters between parentheses refer to the identity of the speakers, which you do not need to copy. A conversational exchange is represented by two letters in direct sequence (e.g. A + B, or M + N). If you cannot translate all the sentence, translate as many individual words as you can.

- 1 (A) Entschuldigen Sie bitte, _____
- 2 wo ist der Dom? _____
- 3 (B) Den sehen Sie dort druben. _____
- 4 (E) Haben Sie einen Stadtplan? _____

5 (F) Es tut mir leid, _____

wir sind ausverkauft. _____

6 (I) Was macht das zusammen, bitte? _____

7 (J) Das wären drei Mark achtzig. _____

8 (M) Haben Sie ein Einzelzimmer _____

mit Bad? _____

9 (N) Mit Bad habe ich leider _____

10 keine Einzelzimmer mehr. _____

11 (Q) Welchen Tee trinken Sie _____

am liebsten? _____

12 (R) Einen kräftigen Ostfriesentee. _____

13 (U) Wie kommen wir nach Bremen? _____

14 (V) Das ist ganz einfach! _____

Immer geradeaus! _____

15 (Y) Wann stehen Sie morgens auf? _____

16 (Z) Viertel nach drei ungefähr. _____

17 (A) Ich wohne zu Hause _____

bei meinen Eltern. _____

18 (D) Der Arzt bestimmt, _____

was man essen darf. _____

19 (G) Man kann _____

einen Spaziergang machen. _____

20 (J) Was für Trauben sind das hier? _____

21 (K) Was gefällt Ihnen _____

an dieser Arbeit? _____

22 (N) Ich lese gern Horrorgeschichten. _____

23 (Q) Die Straßen wurden nicht _____

für Autos gebaut. _____

24 (T) Sie ist eine der wichtigsten _____

25 gotischen Kirchen in Deutschland. _____

26 (W) Wie lange sind Sie schon _____

verheiratet? _____

27 (A) Man hat einen sehr schönen _____

28 Blick über die Stadt. _____

29 (D) Wie alt ist die historische _____

Wurstküche? _____

30 (G) Gehört dieses Schiff _____

Ihrer Familie? _____

_____ Finis _____

Basic German Language Achievement Test #2

1st Name _____ Family Name _____ Group _____

Part One (cut of 40 points) _____ + Part Two = _____ TOTAL = _____

1 Listen to the four questions asked by Paul to Frau Spilker, from the puppet theatre. Write the questions in English in the spaces provided.

a _____ ?

b _____ ?

c _____ ?

d _____ ?

2 a) How much does **each** postcard cost?

a _____ DM

b) Does the woman have any postage stamps? (Yes or No)

b _____

c) If not, where can stamps be obtained?

c _____

3 Match the number of the sentence spoken on the tape with the following signs or symbols. They are not in the order of the statements















- 4 What is the name of the man interviewed? _____
- In which city does he live? _____
- How old is he? _____
- Where does he study? _____
- What does he study? _____
- Where does he live? _____
- With whom does he live? _____
- What is he in his spare time? _____
- Why does he do this activity? _____

Part Two (out of 40 points)

Translate as many of the following sentences into English as you can. (Use the lines on the right of the page.) The letters between parentheses refer to the identity of the speakers, which you do not need to copy. A conversational exchange is represented by two letters in direct sequence (e.g. A + B, or M + N). If you cannot translate all the sentence, translate as many individual words as you can.

- 1 (A) *Entschuldigung bitte.* _____
- 2 *wo ist hier ein Friseur?* _____
- 3 (B) *Hier gleich links rum.* _____
- 4 (E) *In Bremen gibt es viele Kunstgalerien.* _____
- 5 (G) *Hast du Geschwister?* _____

- 6 (I) Ich möchte gern nach München fahren. _____
- 7 (J) Haben Sie einen Fahrplan? _____
- 8 (M) Nehmen Sie ein Kannchen Tee? _____
- 9 (N) Ich hätte gern ein Glas Tee, _____
- 10 und ein Stück Torte mit Sahne dazu. _____
- 11 (Q) Wie schmeckt Ihnen Kaffee am besten? _____
- 12 (R) Schwarz, bitte, ohne Zucker. _____
- 13 (U) Wieviel Milch gibt eine Kuh pro Tag? _____
- 14 (V) Zwischen zwanzig und dreißig kg milch. _____
- 15 (Y) Wann öffnen Sie an Wochentagen? _____
- 16 (Z) Wir öffnen morgens um acht Uhr. _____
- 17 (A) Ist Ihre Arbeit oft frustrierend? _____
- 18 (D) "Morgens Fango und abends Tango." _____
- 19 (G) Der "S" Wein ist süßer als der "K" Wein. _____
- 20 (J) Kann jedes Mädchen Weinkönigin werden? _____
- 21 (K) Nein, man muß unverheiratet sein. _____
- 22 (N) Ist es leicht, ein Hotel zu bekommen? _____

23 (Q) Die Menschen sind sehr freundlich.

24 (T) Gott, jedes Brot spricht für sich,

25 viel mehr aber noch für Dich.

26 (W) Der Straßenverkehr ist ein Problem.

27 (A) Im Mittelalter war die Stadt

28 ein politisches Zentrum

29 (D) Wie viele Pralinen verkaufen Sie im
Jahr?

30 (G) Die Steinmetzen arbeiten an der

Restaurierung des Doms.

Basic German-Language Achievement Test #3

1st Name _____ Family Name _____ Group _____

Part 1 (40 points) _____ + Part 2 (40 points) - _____ TOTAL - _____

Part One: Listening Comprehension

Task #1 (9 points) Listen to the instructions on the tape. You will hear various sentences, instructing you how to get to somewhere shown on the map below. Circle the place indicated, and write the appropriate number beside its name in the box in the lower right-hand corner.

One place is not mentioned. Which is it? (9) _____

The map shows a city layout with the following features:

- BAHNHOF** (Station) at the top.
- Bahnhofplatz** (Station Square) below the station.
- Rathaus** (Town Hall) on the left side.
- Hotel Parzival** on the right side.
- STADTPARK** (City Park) in the lower-left quadrant, containing a **Verkehrsverein** (Traffic Club).
- STADT-THEATER** (City Theater) on the right side, below the hotel.
- Post** (Post Office) at the bottom right.
- Dom** (Cathedral) at the bottom center.
- Streets:** Parkstraße, Nibelungenstraße, Goethestraße, Domstraße, Tristanstraße, and Bahnhofstraße.

Legend (bottom right):

- der Stadtpark
- der Bahnhof
- der Dom
- der Verkehrsverein
- das Rathaus
- das Stadttheater
- die Post
- die Nibelungenstraße
- das Hotel Parzival ...

An arrow points to the legend with the text: **Sie sind hier** (You are here).

Task #2 (9 points) Read the first set of three questions below, then listen to the brief transaction on the tape. Answer the questions, and then listen to the conversation a second time, to check your answers. Follow these steps for the second and third set of questions.

Set #1

- 1 What does the man want to buy? _____
- 2 How many of them does he buy? _____
- 3 How much does he pay the woman? _____ DM

Set #2

- 1 Where is the man going? _____
- 2 How much is the ticket? _____ DM
- 3 When does the train leave? _____

Set #3

- 1 What does the man want? _____
- 2 Has he been to this place before? _____
- 3 What time is agreed upon? _____

Task #3 (10 points) Read the five questions below, then listen to the conversation between Michael and Herr Unger, which will be played twice. Answer the questions, and then listen to the conversation one last time, to check your answers.

1 Where was Herr Unger born? _____

2 How old is he? _____

3 Which of his children is the older? _____

4 What is his job? _____

5 Where does he work? _____

Task #4 (12 points) Read the six questions below, then listen to the conversation between Marcello and the tourist, which will be played twice. Answer the questions, and then listen to the conversation one last time, to check your answers.

1 Where is Frau Fiedler from? _____

2 What area is she visiting ? _____

3 After sightseeing, what will she do? _____

4 What does she think of Salzburg? _____

5 What has impressed her the most? _____

6 How many times has she been to
Salzburg? _____

Part Two: Reading Comprehension (60 points)

Translate as many of the following sentences into English as you can. Note that there are three pages of sentences. Make sure that you have all of them in your examination booklet. Use the lines on the right of the page for your English translation. If you know only one or two words, translate them. Do NOT worry if many of them are too difficult for you. The letters between parentheses refer to the identity of the speakers, which you do not need to copy. A conversational exchange is represented by two letters in direct sequence (e.g. A followed by B, or M followed by N). There is no connection between sentence B and E, or F and I.

- 1 (A) Machen Sie die Puppen selbst? _____
- 2 (B) Ja. Wir kaufen keine. _____
- 3 (E) Wo kann ich hier gut einkaufen? _____
- 4 (F) Am besten ist, _____
- 5 Sie gehen direkt in die Stadt. _____
- 6 (I) Was dürfen wir für die Dame _____
- 7 zu trinken bringen? _____

- 8 (J) Ein großes Bier, bitte. _____
- 9 (N) Das Zimmer kostet einhundert _____
- 10 Mark, inklusive Frühstück. _____
- 11 (Q) Möchten Sie einen süßen Apfel _____
- 12 oder einen sauren? _____
- 13 (U) Die Landschaft ist flach. _____
- 14 (X) Wie viele Kühe haben Sie? _____
- 15 (A) Was für eine Rasse ist das? _____
- 16 (D) Sind Sie gerne Landwirt? _____
- 17 (G) Das ist absolut mein größtes _____
- 18 und liebstes Hobby! _____
- 19 (J) Wie lange bleiben Sie in Bonn? _____
- 20 (I) Nur für ein paar Stunden. _____
- 21 (L) Gefällt Ihnen die Arbeit hier? _____
- 22 (M) Ja. Man ist an der frischen Luft, _____

23 sowohl bei Sonne wie bei Regen. _____

24 (P) Hast du auch samstags _____

Unterricht? _____

25 (Q) Nein, samstags haben wir _____

keine Schule. _____

26 (T) Morgens Fango _____

und abends Tango. _____

27 (W) Wie finden Sie persönlich _____

den Volkacher Wein? _____

28 (Z) Ist das Hotel das ganze Jahr _____

geöffnet? _____

29 (C) Sind Sie berufstätig? _____

30 (D) Ja, ich bin Lehrerin. _____

APPENDIX G

LANGUAGE LEARNING DIARY FORM AND EXPLANATORY HANDOUT

LANGUAGE-LEARNING DIARY OF _____ (name)

Date: 19__-__-__
Year Month Day

Today, I engaged in the following activities related to my language course:
(Distinguish between different activities such as reading the text book, completing exercises orally, completing exercises in writing, working in the language lab., etc. Use following page, if necessary.)

Nature of Activity

Time spent
(00:00 to 00:00 hrs)

_____	__-__-__
_____	__-__-__
_____	__-__-__
_____	__-__-__
_____	__-__-__
_____	__-__-__
_____	__-__-__
_____	__-__-__
_____	__-__-__
_____	__-__-__

These are my feelings & impressions about the course so far, and my progress in it:

(Mention what you are enjoying, and what you dislike; which of your activities you think are helpful, and which you think are not. Use following page, if necessary.)

Language Learning Diaries

We cannot stress enough how vital it is for the experiment that we know whether or not you are spending any extra time on learning German, and, if so, how you are spending it. We also need to know what you feel about the course so far: your achievements, difficulties, level of interest, etc. It is, therefore, very important that you regularly fill in the language learning diaries.

You should complete a diary form:

...when you come into contact with German outside of class for thirty or more minutes (eg. through books, tapes, films, conversation, lesson preparation, etc.). 'Contact' sessions of less than thirty minutes do not require a separate page, but we still need to know about them. They may be reported collectively (on one page) at the end of the week.

...when you complete a class session. In this case, it is not necessary to go into detail on the top half of the form. Simply label it as class time, and fill in the 'feelings' section at the bottom of the page.

...when you make up, on your own time, a class that you were absolutely unable to attend. Please specify on the diary form that this is what you are doing. Note, however, that you should make every effort to attend all classes. You may only continue to have access to the audio and video tapes in the lab if you are attending on a regular basis!

You do not need to be eloquent, but please be complete and clear. Don't forget - every minute counts!

APPENDIX H

SCHEDULES OF DATES AND TIMES FOR COURSES

SUGGESTIONS FOR PERSONAL STUDY PERIODS

Dates of Tests & Deutsch Direktl Episodes for Group D

N.B. All testing sessions *except the first posttest on March 30*
 (which will last from 16:45 until approx. 18:10,
 unless we begin an hour earlier, at 13:00)
 begin at 14:00, and should be over by 15:30

All classes begin at 14:00, and end at 17:00

<u>Date</u>	<u>Room #</u>	<u>Class #</u>	<u>DD Episodes **</u>
1990- January -12	H-415	Pretest & Sale of <u>DD</u>	--
1990- January -19	H-415	1st	1 & 2
1990- January -26	H-415	2nd	3 & 4
1990- February -2	H-415	3rd	5 & 6
1990- February -9	H-415	4th	7 & 8
1990- February -16	H-415	5th	9 & 10
1990- February -23		---- No Class (Concordia Univ. Reading Week)	
1990- March -2	H-415	6th	11 & 12
1990- March -9	H-415	7th	13 & 14
1990- March -16	H-415	8th	15 & 16
1990- March -23	H-415	9th	17 & 18
1990- March -30	H-415	10th (+ 1st Posttest)	19 & 20
1990- April -27	H-635-2	2nd Posttest	--
1990- June -22	H-420	3rd Posttest	--

The Learning Laboratories (Sir George Williams Campus)

Hall Bldg, Room 525, Mondays-Fridays: 09:00 - 22:00, Sats: 10:00 - 14:00

have 1 set of Beta tapes of DD (6 Beta VCRs available)

& 1 set of VHS tapes (2 VHS VCRs available)

They also have 3 sets of audio tapes for DD (many machines available)

N.B. Because of © restrictions, no further copies may be made of these materials. The audio tapes (3 in a set, \$29:50) may be purchased from

McClelland & Stewart Inc.,

380 Esna Park Drive

Markham, ON L3R 1H5

Tel. 1 (800) 268-5748 (Toll-free Orders) or (416) 940-8855

Proposed Timetable for the Experimental Language Course

(Group D : Non-Intensive)

THIS GROUP MEETS ONCE A WEEK FOR TEN WEEKS (On Fridays)

<u>Times</u>	<u>Total</u>	<u>Details</u>
14:00-14:05	0:05	Rollcall & administrative details (<u>Punctuality, SVP!</u>)
14:05-14:20	0:15	Personal study (PS) preview of VT #1 in books
14:20-14:45	0:25	#1 video tape (VT) of the week
14:45-15:05	0:20	PS preview of AT #1 in books
15:05-15:20	0:15	#1 audio tape (AT) of the week
15:20-15:35	0:15	BREAK
15:35-15:50	0:15	PS preview of VT #2
15:50-16:15	0:25	#2 VT of the week
16:15-16:35	0:20	PS preview of AT #2 in books
16:35-16:50	0:15	#2 AT of the week
16:50-17:00	0:10	Review and completion of language-learning diaries

<u>Total time</u>	3:00, of which 25 x 2	= 50 mins with video tapes
	& 15 x 2	= 30 mins with audio tapes
	& 15 + 20 + 15 + 20	= 70 mins in personal study
<u>Total instructional/learning time</u>		= 150 mins (2:30 hours)
<u>Other activities</u>		= 30 mins

N.B. Audio and cassette tapes will be available for additional personal study in the language laboratory at Concordia University, Room H-527. Identify yourself as a participant in this experiment.

Dates of Tests & Deutsch Direktl Episodes for Group M

N.B. All testing sessions *except the first posttest on May 18*
 (which will last from 16:50 until approx. 17:30)
 begin at 14:00, and should be over by 15:30

All classes begin at 09:00, and end at 16:00

<u>Date</u>	<u>Room #</u>	<u>Class #</u>	<u>Episodes ##</u>
1990- May -07	H-420	Pretest & Sale of <u>DD</u>	--
1990- May -14	H-520	1st	1, 2, 3 & 4
1990- May -15	H-520	2nd	5, 6, 7 & 8
1990- May -16	H-420	3rd	9, 10, 11, & 12
1990- May -17	H-420	4th	13, 14, 15, & 16
1990- May -18	H-520	5th (+ 1st Posttest)	17, 18, 19, & 20
1990- June -15	H-635-2	2nd Posttest	--
1990- Aug -10	H-520	3rd Posttest	--

The Learning Laboratories (Sir George Williams Campus)
 Hall Bldg, Room 525, Mondays-Fridays : 09:00 - 22:00, Sats: 10:00 - 14:00
 have 1 set of Beta tapes of DD (6 Beta VCRs available)
 & 1 set of VHS tapes (2 VHS VCRs available)

They also have 3 sets of audio tapes for DD (many machines available)

N.B. Because of © restrictions, no further copies may be made of these materials. The audio
 tapes (3 in a set, \$29:50) may be purchased from

McClelland & Stewart Inc.,
 380 Esna Park Drive
 Markham, ON L3R 1H5
Tel. 1 (800) 268-5748 (Toll-free Orders) or (416) 940-8855

Proposed Timetable for the Experimental Language Course

(Group M: Intensive)

THIS GROUP MEETS DAILY FOR ONE WEEK (Monday-Friday)

<u>Times</u>	<u>Total</u>	<u>Details</u>
09:00-09:05	0:05	Rollcall & administrative details (Punctuality!)
09:05-09:20	0:15	Personal study (PS) preview of VT #1 in books
09:20-09:45	0:25	#1 video tape (VT) of the day
09:45-10:05	0:20	PS preview of AT #1 in scripts & books
10:05-10:20	0:15	#1 audio tape (AT) of the day
10:20-10:35	0:15	BREAK
10:35-10:50	0:15	PS preview of VT #2 of the day
10:50-11:15	0:25	#2 VT of the day
11:15-11:35	0:20	PS preview of AT #2 in scripts & books
11:35-11:50	0:15	#2 AT of the day
11:50-12:00	0:10	Review & completion of language-learning diaries
12:00-13:00	0:60:00	LUNCH
13:00-13:05	0:05	Rollcall & administrative details
13:05-13:20	0:15	PS preview of VT #3 of the day
13:20-13:45	0:25	#3 VT of the day
13:45-14:05	0:20	PS preview of AT #3 in scripts & books
14:05-14:20	0:15	#3 AT of the day
14:20-14:35	0:15	BREAK
14:35-14:50	0:15	PS preview of VT #4 in books
14:50-15:15	0:25	#4 VT of the day
15:15-15:35	0:20	PS review of AT #4 in scripts & books
15:35-15:50	0:15	#4 AT of the day
15:50-16:00	0:15	Review & completion of language-learning diaries

<u>Total time</u>	6:00, of which 25 x 4
= 100 mins (1:40) with video tapes	
& 15 x 4	= 60 mins with audio tapes
& (15 + 20 + 15 + 20) x 2	= 140 mins (2:20) in personal study
<u>Total instructional/learning time</u>	= 300 mins (5:00 hours)
<u>Other activities</u>	= 60 mins

N.B. Audio and cassette tapes will be available for additional personal study in the language laboratory at Concordia University, Room H-527. Identify yourself as a participant in this experiment.

Personal Study Periods

You will notice on the class timetable that time is allowed for eight personal study periods, one before each audio or video tape presentation. It is obviously important for you to make effective use of these study periods in order to fully benefit from the course. Your priority in these periods should be to prepare yourself for the A/V presentation to follow. We would suggest you do the following:

Preview for video tapes

Read through the conversations in text sections marked "Fernsehen". Use the gloss (in red) to check the meaning of any words you don't understand, or look them up in the back of the book, but keep in mind that the aim is general understanding of content, **not** grammatical analysis!

Preview for audio tapes

Check the audio script to see which conversations you will hear. Read through these conversations in the text sections marked "Radio", again using the gloss as needed and reading for general meaning. Check the script to see which exercises (Ubungen) will be done in the "Probieren Sie Mal" section of the tape, and look them up in the same section of the text. Knowing what you are expected to do for these exercises will make it a lot easier for you to participate with the tape!

Practice/Review

Once you are familiar with the content of the conversations to be presented, use any **remaining** time for other practice or review activities (eg: practice the conversations with a partner, work through exercises or readings in the text, etc.). Don't worry if you don't have extra time as these exercises can easily be completed outside of class.

APPENDIX I

BIOGRAPHICAL DATA FOR INDIVIDUAL SUBJECTS

GROUP D

Subject	Sex	Age	Education level	Languages known
1	m	24	2	3
2	f	23	1	3
3	m	27	2	3
4	m	26	1	2
5	f	65	1	2
6	f	36	2	4
7	m	26	2	2
8	f	36	2	3
9	f	24	1	5
10	f	33	2	4
11	f	20	1	3
12	f	24	2	2
13	m	26	1	3
14	f	21	1	4
15	f	29	2	4
16	f	25	2	2
17	f	22	2	3
18	f	25	2	4
19	m	25	2	3
20	f	19	1	3
21	m	26	2	3
22	m	*	2	4

Subject	Sex	Age	Education level	Languages known
23	m	22	1	3
24	m	30	2	3
25	m	27	2	3
26	m	31	2	3
27	m	29	1	2
28	f	38	2	6
29	f	28	2	3
30	f	22	1	3
31	m	54	3	4
32	f	47	1	2

GROUP M

Subject	Sex	Age	Education level	Languages known
1	m	42	2	2
2	f	25	2	3
3	f	60	4	4
4	f	32	3	3
5	m	33	3	3
6	f	42	1	9
7	f	47	4	2
8	m	30	2	3
9	f	21	1	2
10	f	20	1	2

Subject	Sex	Age	Education level	Languages known
11	m	42	1	2
12	m	26	2	3
13	f	32	2	3
14	f	28	2	4
15	m	30	3	4
16	m	31	4	1
17	f	47	2	3
18	m	40	3	4
19	f	26	2	4
20	f	23	2	3
21	m	24	2	2
22	m	27	2	2
23	f	43	3	6
24	f	59	1	3
25	m	28	2	3
26	f	23	2	3
27	m	41	3	5
28	f	43	1	2
29	f	26	2	4
30	m	20	1	3
31	m	61	4	2
32	f	53	2	5
33	m	56	4	2

APPENDIX J

INDIVIDUAL SUBJECT SCORES ON PRE-TEST, OERG APTITUDE TEST, AND
ESPERANTO APTITUDE TEST, AND SUBJECT STATUS AT TIME OF FIRST
POST-TEST.

GROUP D

Subject	Pre-Test (max =50)	OERG (max=52)	Esperanto (max =30)	Post-Test Status
1	4.7	49	24	tested
2	4.0	46	21	lost
3	4.0	52	28	tested
4	4.5	42	16	lost
5	3.0	36	20	tested
6	7.5	45	18	"
7	6.7	39	15	"
8	1.0	41	20	"
9	1.4	36	28	lost
10	8.5	48	28	"
11	2.2	49	22	tested
12	1.0	37	28	lost
13	11.3	*	21	"
14	3.0	52	30	"
15	6.8	50	19	"
16	15.0	51	23	"
17	2.0	34	20	tested
18	4.0	*	30	"
19	7.0	50	29	lost

Subject	Pre-Test (max=50)	OERG (max=52)	Esperanto (max=30)	Post-Test Status
20	.5	47	24	"
21	3.7	47	22	tested
22	13.2	46	25	lost
23	2.5	48	27	"
24	1.8	39	15	"
25	2.8	40	21	"
26	7.3	46	14	tested
27	3.3	45	23	"
28	12.3	49	26	lost
29	9.5	51	22	tested
30	0.0	47	19	"
31	4.0	49	18	"
32	3.3	45	26	lost

GROUP M

Subject	Pre-Test (max=50)	OERG (max=52)	Esperanto (max=30)	Post-Test Status
1	13.5	43	14	tested
2	6.5	49	28	"
3	13.8	47	28	"
4	18.3	45	26	"
5	1.3	39	25	"
6	16.7	47	28	"
7	3.8	40	23	"

Subject	Pre-Test (max =50)	OERG (max =52)	Esperanto (max =30)	Post-Test Status
8	.7	35	19	"
9	6.3	45	29	lost
10	1.0	*	25	lost
11	4.0	*	23	tested
12	11.8	46	30	"
13	1.8	46	28	"
14	8.5	47	24	"
15	24.2	44	30	lost
16	17.5	50	26	tested
17	.7	*	18	"
18	14.0	49	27	"
19	1.8	44	28	"
20	2.0	43	30	"
21	1.5	45	29	"
22	7.8	51	28	"
23	5.3	45	29	"
24	2.2	46	22	"
25	2.8	42	26	lost
26	2.0	46	29	tested
27	9.8	50	30	"
28	5.2	48	30	lost
29	1.0	41	27	tested
30	9.0	*	28	"
31	9.2	36	19	"
32	4.8	49	30	"
33	8.2	49	27	"

APPENDIX K

INDIVIDUAL SUBJECT RESPONSES ON BIOGRAPHICAL DATA QUESTIONS
 RELATING TO INTEREST/MOTIVATION: self-rated interest in learning German,
 probability of visit to Germanophone country within one year, past visits to
 Germanophone countries, Germanophone friends and/or relatives.

GROUP D

Subject	Interest -rating (1-10)	Probability of future visit (1-10)	Past visits to Germ. country (Yes/No)	Germ. friends or relatives (Yes/No)
1	10	10	N	Y
2	10	0	N	Y
3	7	2	Y	Y
4	9	3	N	N
5	7	10	N	Y
6	6	0	Y	Y
7	9	8	Y	Y
8	6	0	Y	Y
9	9	10	N	N
10	5	0	Y	Y
11	9	0	N	Y
12	9	6	N	Y
13	7	7	Y	Y
14	6	0	Y	N
15	5	0	Y	Y
16	8	6	N	Y
17	10	0	Y	Y
18	8	6	N	Y
19	9	7	Y	N
20	9	0	N	N

Subject	Interest -rating (1-10)	Probability of future visit (1-10)	Past visits to Germ. country (Yes/No)	Germ. friends or relatives (Yes/No)
21	10	0	Y	N
22	8	1	Y	Y
23	9	9	N	Y
24	5	*	Y	Y
25	10	*	Y	Y
26	6	5	N	Y
27	7	8	Y	Y
28	3	0	Y	N
29	7	4	Y	Y
30	8	0	N	Y
31	10	7	Y	Y
32	7	*	N	Y

GROUP M

Subject	Interest -rating	Probability of future visit (1-10)	Past visits to Germ. country (Yes/No)	Germ. friends or relatives (Yes/No)
1	10	10	Y	Y
2	10	*	N	N
3	8	10	Y	Y
4	7	0	N	Y
5	5	*	Y	N
6	8	1	Y	Y
7	8	10	Y	Y
8	7	7	N	N
9	10	9	N	Y

Subject	Interest -rating	Probability of future visit (1-10)	Past visits to Germ. country (Yes/No)	Germ. friends or relatives (Yes/No)
10	8	0	N	Y
11	8	0	N	Y
12	8	0	N	Y
13	9	0	Y	N
14	8	6	Y	Y
15	8	0	Y	N
16	10	10	N	Y
17	10	7	Y	Y
18	7	10	Y	Y
19	7	5	N	Y
20	8	0	Y	Y
21	8	0	N	Y
22	7	0	N	Y
23	10	0	Y	N
24	6	0	N	Y
25	10	7	N	Y
26	10	0	Y	Y
27	*	*	Y	Y
28	10	2	Y	N
29	5	7	N	N
30	10	10	N	Y
31	9	10	Y	Y
32	10	5	Y	Y
33	5	10	Y	Y

APPENDIX L

INDIVIDUAL SUBJECT SCORES FOR POST-TEST SESSIONS 1-3: Basic German Language Achievement Test (BGLAT), Royal Society of Arts test (RSA), and total score.

GROUP D

Post-Test:	1			2			3
Subject	BGLAT	RSA	Total	BGLAT	RSA	Total	BGLAT
1	60.17	40	100.17	43	42.5	85.5	44.2
2	75.83	63.5	139.33	78	67.5	145.5	69.6
3	62.67	47	109.67	64	50.5	114.5	*
4	74.67	50	124.67	75	55	130	63.7
5	37.67	38	75.67	25.6	32.5	58.1	26.6
6	68.33	53.5	121.83	60.8	48.5	109.3	*
7	47.83	43.5	91.33	*	*	*	*
8	46	37	83	31	38.5	69.5	*
9	67.67	59.5	127.17	56.8	51	107.8	56.2
10	68.17	43	111.17	67.4	41.5	108.9	63.6
11	69.17	44.5	113.67	59.4	50	109.4	53.3
12	57.83	44	101.83	*	*	*	*
13	67.50	56	123.50	66.2	51	117.2	61.6
14	42.67	15.5	58.17	*	*	*	*
15	70	58	128	*	*	*	*

GROUP M

Post-Test:	1			2			3
Subject	BGLAT	RSA	Total	BGLAT	RSA	Total	BGLAT
1	68.33	34.50	102.83	71	50	121	60.8
2	62.50	40	102.5	51.8	36	87.8	43.1
3	74.50	62.5	137	*	*	*	69.4
4	78.33	71.5	149.83	78.6	66.5	145.1	72.6
5	57.50	48	105.5	54.4	41	95.4	41.4
6	68.33	54.5	122.83	71	63.5	134.5	61.2
7	59.50	44.5	104	58.6	47.5	106.1	*
8	28.33	15.5	43.83	24.6	24	48.6	13.2
9	68	40.5	108.5	51.2	40.5	91.7	43
10	71.83	63	134.83	70.8	64.5	135.3	*
11	51.17	39.5	90.67	24.2	37	61.2	30
12	67	47	114	59.2	43.5	102.7	*
13	75.17	52	127.17	*	*	*	*
14	40.83	24	64.83	*	*	*	*
15	78.83	62.5	141.33	*	*	*	72.2
16	60.17	38	98.17	42.8	37	79.8	46.4
17	60	38	98	54.2	42.5	96.7	*
18	61.33	50.5	111.83	43	47	90	40.8
19	71.17	57	128.17	61	53	114	*
20	71.67	49.5	121.17	75.4	56.5	131.9	51.6
21	51.5	27	78.5	*	*	*	*
22	59.33	44	103.33	45.2	43	88.2	37.2
23	73.67	70	143.67	73.6	63	136.6	*
24	51.17	27	78.17	34.4	34.5	68.9	35.4
25	58.67	38.5	97.17	36.6	39.5	76.1	43.2
26	54.67	50.5	105.17	*	*	*	*
27	75.83	58.5	134.33	75.6	65.5	141.1	64.6
28	54.5	51.5	106	*	*	*	32.4