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Reduction of Second Language Interference Through Mastery Learning

Franceen R. Handelsman

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Abstract

Second Language Interference in Jewish Day schools

and how the problem can be reduced through

Mastery Learning

Franceen R. Handelsman

Language Interference is a problem in any second language learning environment. This study focuses on the French and Hebrew Language Interference errors committed by students in a Montreal Jewish Day School.

Using the categories initiated by Adiv (1980) pre- and post-tests were developed. The experimental group was treated with a Mastery Learning Instructional Design and Development created to treat these errors.

An analysis of variance and a t-test showed that the post-test scores of the experimental group were significantly higher than the scores of the control group.

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Abbreviated Terms

CA	contrastive analysis
EA	error analysis
f	feminine
fossilization	if LI errors remain uncorrected they became more difficult to correct later
Jewish Day School	parochial school where Jewish studies and secular (science, math, English, French) are taught.
L1	native language/first language/mother tongue
L2	language to be learned/target language
L3	the second language being learned simultaneously.
m	masculine
pl	plural
s	singular

CHAPTER 1

INTRODUCTION AND STATEMENT OF THE PROBLEM

Language Interference in Jewish Day Schools

The following is a study designed to assist teachers, and curriculum developers in the Jewish Day school system in Montreal to solve a problem present in their schools: language interference. Language interference (henceforth LI), or negative transfer, is defined by Dulay, Burt, and Krashen (1982) as occurring when the "learner's first language interferes with his or her acquisition of a second language, and that it therefore comprises the major obstacle to successful mastery of the new language" (p. 97). While LI is present wherever second language learning (henceforth SLL) occurs, it is even more prevalent in the day schools because the curriculum offered includes three, or even four languages, (i.e., English, French, Hebrew, and depending on the day school's orientation, Yiddish). The purpose of this study is to introduce an instructional design, development, and evaluation to reduce the frequency and duration of LI. Following is the background to this problem.

Due to the Educational Ministry's guidelines the school day must encompass almost three hours of French instruction while the remaining school day (totalling between five and six hours in length) may accommodate other studies, i.e., English studies and Judaica/Hebraica. This situation does not necessarily pose a problem for those Jewish day schools which conduct their curricula in French, but it does pose a problem for the remaining Jewish day schools which conduct their curricula in English.

While some English language Jewish day schools have accommodated the compulsory French studies by offering such courses as science and gym in French, other day schools have lengthened the school day, while others do both. However, the final result is the same: less time in the classroom spent on Judaica and Hebraica. The goals of most Jewish day schools are to furnish the children with a Jewish identity, promote knowledge of Jewish history and knowledge of Hebrew, and foster an emotional and psychological connection with, and commitment to, Israel.

Jewish day school teachers complain that there are not enough hours in the school day to cover the curriculum. While the suggestion to shorten curriculum has been made, it has also been rejected, since according to Himmelfarb (1972) a minimum amount of Jewish and Hebraica studies is needed to foster a Jewish identity. Since most Jewish day schools offer the Judaica and Hebraica courses in Hebrew, and since students are expected to interact with the teachers, and peers, as well as complete written assignments in Hebrew, correction of Hebrew by the teacher may take up a significant part of the day's Hebrew curriculum. How much time is actually spent by the teacher in correcting children's second (henceforth L2) or third language (henceforth L3) production - oral and written, depends on the individual teacher's style. Also, correction of Hebrew not only exists within the Hebrew language lesson, but also in the Siddur (prayer-book) lesson, the Bible lesson, and the Jewish History lesson (if the course is conducted in Hebrew). Most mistakes children make are repetitive. From the literature, which will be discussed below, it is apparent that anywhere between 10 to 30 percent of mistakes children make can be attributed to LI i.e., grammar rules from English being applied to Hebrew and/or

French. If an avenue could be found to reduce children's interference errors, more time could be spent learning Judaica and Hebraica. An added dimension is the possible interference between French and Hebrew, considered to be these children's weak languages. Once a child figures out a grammatical process for one language, s/he may subconsciously try to apply it to the other L2 being learned.

Mastery learning (henceforth to be referred to as ML) as a possible solution is suggested. ML has been used as a pedagogical tool to aid in the instruction of mathematics and science. ML has not been often been employed in the fields of L1 or L2 instruction.

Background of Language Acquisition

"Language acquisition" as a field of study began in the late 1960s, following Chomsky's work in linguistic theory (cited in Le Compagnon, 1984). Chomsky asserts that "the language learning child is equipped with an innate mental language acquisition device (LAD) which processes utterances according to a limited set of strategies so as to produce a grammar of the language" (cited in Le Compagnon, 1984, p. 39). Corder, (1967) using Chomsky's theory as a base, found that the systematic nature of the errors made by learners of L2 pointed to the fact that the L2 learner attempts to internalize the grammar of the language according to a process similar to the one used by the L1 learner (cited in Le Compagnon, 1984). Richards (1971) showed that errors committed by L2

learners are based on universal language learning strategies such as overgeneralization, ignorance of rule restrictions, and incomplete application of rules (cited in Le Compagnon, 1984). Thus Corder and Richards both asserted that L2 learners learn a L2 similar to how a L1 is learned. Dulay and Burt (1974) were one of the first to develop a model of L2 acquisition which would attempt to account for both LI errors (i.e., interlingual) and noninterference errors (i.e., intralingual) in a single acquisition process (Le Compagnon, 1984). Dulay and Burt (1974) hypothesized that the L2 learner's strategy "does not include transfer, from either positive or negative sources or comparison with this native language, but instead relies on his dealing with the second language syntax as a system" (Le Compagnon, 1984, p.40).

By studying acquisition order it is possible to determine the sequence in which the learners acquire language structure. Contrary to popular belief students of L2 do not learn structures in the order they are taught. If teachers knew the order in which students naturally tend to learn language structures, they could work with the process (Dulay et al., 1982). Through much research it was found that there is a common order of acquisition for certain English structures which is characteristic of L2 learners. This acquisition order is characteristic of children as well as adults, and is similar for both speaking and writing, provided that the data studied are natural conversations or compositions. The L2 acquisition order is somewhat different from the L1 order, the mental age differences between L1 and L2 learners may play a significant role (Dulay et al., 1982).

The concept of transfer, both positive and negative, have been examined from

a number of perspectives, and it has been observed that L1 language influences occur not only as direct linguistic reflexes (Gass 1984). Zobl (1980) concluded that developmental errors may occur when the L2's structure is similar to the structure of the learner's L1; while there are overlaps between developmental errors and transfer errors, transfer errors have a greater tendency to result in fossilization (if L2 errors remain uncorrected they become more difficult to correct later).

In summary, this study will focus on the problem inherent in a Jewish day school, LI, and how it can be solved through the pedagogical means of ML. An instructional design, development, and evaluation will be offered as a possible solution.

CHAPTER 2

REVIEW OF THE LITERATURE

The present chapter contains a literature review of language interference (LI) and mastery learning (ML).

Language Interference

In this section the history of language interference (LI) will be discussed, LI will be defined, an overview of the occurrence of LI will be presented, followed by literature reviews of both second language learning (SLL) and second language (L2) interference.

History of Language Interference

Contrastive Analysis

Contrastive analysis (hereafter abbreviated as CA), is a way of predicting students' errors. CA has greatly influenced the field of applied linguistics and L2 teaching for over two decades. The CA hypothesis states that where structures in the L1 (native language) differ from those in the L2 (target language), errors that reflect the structure of the L1 would be produced. Such errors were said to be due to the influence of the learners' L1 habits on L2 production (Dulay et al., 1982). For example, in English one would say, 'I have a pen in my hand', while in French one would say, 'J'ai

un stylo dans la main.' [I have a pen in the hand]. In Hebrew one would say 'yeš ly 'et bayad' (I have a pen in the hand' (Levy, B. B., 1988). However, English mother-tongue speakers displaying LI, would say, 'J'ai un stylo dans ma main' and 'yeš ly 'et bayad šeli' (I have a pen in my hand). Here the possessive is not needed since it would already be inferred by the pronoun 'je', and in Hebrew by the possessive 'ly'. This process has been labelled 'negative transfer,' or 'language interference' in the psycho-linguistic literature. Positive transfer refers to the automatic use of the L1 structure in L2 performance when the structures in both languages are the same, resulting in correct utterances, i.e., in French, in some cases, the adjective is placed after the noun, as in English.

Lado, a founder and proponent of LI states, "We know from the observation of many cases that the grammatical structure of the native language tends to be transferred to the foreign language... we have here the major source of difficulty or ease in learning the foreign language. Those structures that are different will be difficult" (Lado, 1957, p. 2).

Fries, another founder and proponent of LI stated in 1945 that "the most effective materials are those that are based upon a scientific description of the language to be learned, carefully compared with a parallel description of the native language of the learner". In a foreword to Lado's treatise on the subject (Lado, 1957), Fries stated, "Learning a second language therefore constitutes a very different task from learning the first language. The basic problems arise not out of any essential difficulty in the features of the new language themselves but primarily out of the special "set" created by the first

language habits" (p. v).

The CA hypothesis was greatly influenced by the principles of behaviorist (stimulus-response) psychology that was the popular learning theory during the 1950s. When the behaviorist view was shown to have faults in the field of the language, the interference hypothesis was also shown to be lacking in certain areas of language learning (Dulay et al., 1982).

Error Analysis

After the drawbacks of CA in predicting LI was accepted by psycholinguistics, another type of analysis was employed to measure LI, (negative transfer): error analysis (hereafter abbreviated as EA). EA was inspired by the generative linguistics movement of the sixties which focused on the creative aspects of language learning (Dulay et al., 1982). EA served to analyze interference after the fact, and it thus provided much information in the field of L2 acquisition process.

Through the 1950s and into the 1970s linguists believed that comparison of a learner's L1 and L2, would reveal areas of difficulty for L2 students, thereby providing teachers and developers of L2 materials with specific guidelines for lesson planning (Dulay et al., 1982).

As a result of EA it was found that a large number of the grammatical errors committed by L2 learners do not stem from mother tongue interference but were found to be similar to the errors made by young children learning that language as a L1 (Dulay et al., 1982).

Language Interference Defined

The definition LI of has been altered since its heyday in the late 1970s when it was used in relation to CA, and new terminology has been employed since the advent of EA.

Negative transfer occurs when the learner's L1 subconsciously interferes with the learning of the L2. The terminology employed by certain authors may at first glance appear to be inconsistent, i.e. Krashen employs the term negative transfer, while Dulay et al. (1982) employ the terms interference, positive transfer, and negative transfer, (negative transfer being used interchangeably with interference).

Krashen calls 'interference' 'transfer', and states that the term 'interference' no longer exists in current theory. He further states that "first-language influence is hypothesized to be due to a failure to acquire, resulting in 'falling-back' on first-language rules in second-language performance" (Krashen, 1985).

Interlingual errors refer to L2 errors which reflect L1 structure (Dulay et al., 1982). Developmental (or intralingual errors) are "errors similar to those made by children learning the target language as their first language" (Dulay et al., 1982, p. 165). Nickel (1981, cited in Lott, 1983) employs a wider definition of interference and states that it is important to distinguish "between direct and indirect interlingual interference. It may be that what one can call the 'macro-cause' is interlingual and what one may call the 'micro-cause' is intralingual" (pp. 257-258).

Heffernan (1988) states that transfer from the L1 to the L2 is always positive, interference is always negative, and overgeneralization negative as well, i.e.,

pronouncing 'ils finissent' and 'ils parlent' as one would say 'lentement' or 'rapidement'. It is not possible to conclude that 'negative interference' is a passé term, and that 'negative transfer' should be used in its stead. In the following discussion 'interference', 'negative transfer' and 'negative interference' will be used interchangeably.

Studying learners' errors provides educators with data about the nature of the language learning process by indicating to teachers and curriculum developers which part of the target language students have the most difficulty producing correctly and which error types detract most from a learner's ability to communicate effectively (Dulay et al., 1982).

Researchers have found that like L1 learners' errors, most of the errors L2 learners make indicate they are gradually building an L2 rule system. The most common errors are, according to Dulay et al., (1982):

1) Omitting grammatical morphemes, which are items that do not contribute much to the meaning of sentences, as in 'He hit car'.

2) Double marking a semantic feature (e.g., past tense) when only one marker is required, as in 'She didn't went back'.

3) Regularizing rules, as in 'womans' for 'women'.

4) Using archiforms - one form in place of several - such as the use of 'her' for both 'she' and 'her' as in 'I see her yesterday', 'Her dance with my brother'.

5) Using two or more forms in random alternation even though the language

requires the use of each only under certain conditions, as in the random use of 'he' and 'she' regardless of the gender of the person of interest.

6) Misordering items in constructions that require a reversal or word-order rules that had been previously acquired, as in 'What you are doing?', or misplacing items that may be correctly placed in more than one place in the sentence, as in 'They are all the time late" (p. 138).

Percentage of Errors Ascribed to Language Interference

After reviewing numerous articles dating from the 1960s (the advent of EA) Dulay et al., (1982) conclude that the majority of errors made by L2 learners (in this case Spanish-speaking children learning English in the U.S.) are not interlingual, but developmental (intralingual). They cite nine studies and conclude that 87 percent of errors made by children between the ages of five and eight years were developmental, while a mere five percent were interlingual.

Tran (1975, cited in Barnwell, 1987) attempted to determine the comparative difficulty of 33 different Spanish grammatical categories for English speakers. Her subjects were 149 high school students in Toronto. One of her conclusions was that interlingual errors accounted for 51 percent of the total errors made, while 29 percent were categorized as intralingual errors.

Barnwell (1987), in a study done on the syntactical and morphological errors of English university students learning the Spanish past tenses found that 40 percent of the errors made were interlingual in origin, while 34 percent were intralingual.

While one may hypothesize that the discrepancy between the percentages of errors categorized as interlingual by Dulay et al., (1982) and that reported by Tran (cited in Barnwell) and Barnwell (1987) may be due to the fact that Dulay et al., (1982) used results from studies done on children learning L2, while Tran and Barnwell's data emanates from studies involving adults. Gass & Schachter (1989) conclude, from their literature review that interference in adult learners errors account for five to 25 percent of grammatical errors.

Hinds and Tomiyama (1984) take issue with the conclusions reached by Dulay et al., (1982) that the percentage of errors ascribed to language transfer is low. Hinds and Tomiyama found that of the seventeen articles examined by Dulay et al., (1982) only three employed percentages. Hinds and Tomiyana (1982) found four types of problems with the literature cited by Dulay et al., (1982): 1) not all the articles cited defined the terms transfer, or interference; 2) some of the articles discussed transfer, or lack of transfer, based on an incorrect analysis of either the target language or the native language; 3) Dulay et al., misrepresent the spirit of certain articles by taking quotations out of context, or by making interpretations the original authors did not make; 4) the articles used by Dulay et al., which seemed to them to show clearly interference errors were categorized by Hinds and Tomiyama as ambiguous.

Lott (1983) also comments on the discrepancy of interference errors as reported by linguists. He cites Dulay and Burt's 1976 study (cited in Lott, 1983) who state that out of 513 errors made by Spanish children learning English, fewer than five per cent could be classified as interference errors. At the other extreme Nickel (cited in Lott,

1983) observes that some comparative linguistics researchers may have attributed as many as 80 per cent of errors to interference. Lott himself has found 50 per cent of errors attributable to interference. He suggests that the discrepancy may stem from the different definitions of interference.

In Adiv's 1980a study of 57 students she differentiates between errors made by students in grades 1, 2, and 3, and the language of instruction, i.e., French, Hebrew. Her study shows that grade 1 students' interlingual errors in French account for seven percent of the students' total errors, while intralingual errors account for 13 percent; interlingual errors in Hebrew account for 12 percent and intralingual errors 12 percent. Grade 2 students' interlingual errors in French accounted for six percent while intralingual errors 14 percent; interlingual errors in Hebrew accounted for seven percent while intralingual errors 11 percent. Grade 3 students' interlingual errors in French accounted for four percent while intralingual errors accounted for 11 percent; interlingual errors in Hebrew accounted for six percent while intralingual errors accounted for 13 percent.

Gass and Schachter (1989) claim that the percentages are not as important as what and how is counted and categorized, and state that adult learners' errors are indeed not the result of interference.

Literature Review of Second Language Learning

Ervin-Tripp (1974) conducted a study in Geneva, Switzerland involving the testing of thirty-one English-speaking children in that area aged four to nine who were in school

where French was the instructional medium, and who had not been exposed to French for more than nine months. The tests administered included comprehension tests, imitation, and translations. From her findings Ervin-Tripp concluded that children above seven learn phonologically faster than younger children. She also found that the older children learned number and gender in morphology faster than the younger children (youngest being six years of age). Syntax was also learned faster by the older children. Ervin-Tripp concludes that the process of L2 acquisition is very similar to the first in natural situations, especially in terms of the functions of early sentences, their form and semantic redundancy, reliance on ease of short term memory, overgeneralization of lexical forms, and their use of simple order strategies. She also states that if children already have some knowledge about the language to be learned, there may be an accelerated progress, so that the rate of development will not be the same for all facets of second language acquisition.

While it may be both interesting and elucidating to conduct a literature review of L2 acquisition process, the scope of this study must expand to encompass a literature review of the language acquisition process when two second languages are being learned. This study, as mentioned above, will focus on the roles of French and Hebrew and the resulting difficulties the L1 has on the L2 acquisition process.

Very few studies have been done on the effects of learning two second languages, and the type of transfer effect - positive or negative, occurring on the second and third languages, and whether the weak languages exhibit any transfer between them. In the following study findings are discussed in which the language acquisition of L2 is

revealed.

Most of the literature, if not all of it, which discusses the role of L1 interference on the learning of French and Hebrew discuss the problems which occur in a double-immersion program. A double immersion program is defined as an immersion program in which French is the main language of instruction, with the accompaniment of another second language, in this case, Hebrew. An early double-immersion program introduces English, the mother-tongue, only in grade 3 or grade 4 (depending on the individual school's curriculum, orientation, as well as the parents' wishes). The delayed double immersion program includes the instruction of English starting from kindergarten, and thereby also including the instruction of French and Hebrew (Genesee & Lambert, 1983).

Starting in 1974 a longitudinal study in the Jewish day school system in Montreal was instituted. Its goal was to evaluate the effects of a double immersion program on the acquisition of two second languages on the students. Genesee, Sheiner, Tucker, and Lambert's (1976) impetus for conducting a study on the Jewish day school system originated from a report done by Lambert and Tucker (1972) in which an evaluation of French immersion was conducted in order to ascertain any detrimental effects on the participating children's native-language skills. They found that the French immersion program promoted the development of skills in the French language to a level superior to that attained by traditional French-as-a-second language courses. They also found that in Montreal schools children in the immersion programs learn the course material taught in French, while at the same time attain test scores equivalent to that of those children who have been educated in English.

The pilot study, or the first evaluation of a double-immersion program, was implemented in 1976. The English-language Hebrew-day schools in Montreal offered instruction in the Hebrew language, culture, and Judaica as well as a regular English language curriculum. In the two immersion schools English was replaced by French as the language of instruction, with the Judaic studies component remaining the same. The objectives of the evaluation were: a) to assess the English-language competence of pupils attending the two French-Hebrew immersion schools and to compare them with a control school not offering a French-immersion program; b) to compare the two immersion schools to a control school vis-a-vis French-language development; and c) to compare the two immersion schools with a control school in terms of Hebrew-language development. The study was conducted on kindergarten, grade 1 and grade 2 students in two schools, while the English section of school 1 served as the control group. The test battery included English language tests (reading, arithmetic), French language tests (reading, listening comprehension, speaking), and Hebrew language tests (reading, listening comprehension, speaking skills). The results showed that after three years of elementary school education without any formal English-language instruction, the grade 2 students performed as well as the control group on the English-language tests. It was found that the grade two immersion students scored higher in the French tests than did the control group. Genesee, Tucker and Lambert concluded that these findings demonstrated that there was positive transfer of some language skills from English to French. The French immersion students exhibited the same proficiency in mathematics as the control students who had received mathematics instruction in English. The students in the Hebrew

language tests scored higher than the control group and did not seem to be affected by their participation in the immersion program (Genesee, et al., 1978).

In the follow-up study Genesee et al. (1978) reported that the students had advanced to grades 1 and 3 in the two schools. The results showed that the grade 3 immersion students scored essentially the same as they had done in the previous year in all the tests - English, French, Hebrew, and mathematics. The results of the grade 1 students, however, were found to be puzzling: the results showed little difference between the scores of the immersion students and the control students on the French tests, causing Genesee et al. to suggest that the desired effects of the immersion program had not yet had the desired impact on the immersion students. They found that the results of the Grade 1 immersion students on the mathematics tests in English and in French were inconsistent. It was found that the grade 1 immersion students scored lower than the control students on the English language tests, but this was not surprising to the authors, since English had not as yet been introduced as a formal subject to the immersion students (Genesee, et al., 1978).

In the 1978 study, the third in the series, Genesee, Tucker and Lambert evaluated the immersion students who were in grade 2 and grade 4. They found that for the grade 2 immersion students the performance of the two immersion groups in the English tests did not exhibit a significant difference from the control group. The immersion students scored at the same level as the control students on achievement tests in mathematics, both English and French. In the French tests one immersion class scored consistently higher than the control group, and both groups scored at the same

level on the reading and listening comprehension tests; there were minimal differences between the experimental and the control groups on all French tests. In the Hebrew tests where differences were found between the groups they were in favour of one or the other immersion group. In mathematics there were nonsignificant differences among the groups on the French mathematics test, and differences which were found on the English mathematics test did not seem to be due to French immersion alone (Genesee, et al., 1978).

Genesee, Tucker, & Lambert conclude from the English test results that there may be language skills which are common to French, English, and maybe even Hebrew, and that they can be used in processing any language even when formal instruction in the language has not taken place. These skills seem to involve integrative or interpretative processes such as are used in reading comprehension. More technical or mechanical skills which may be involved in learning spelling patterns, phoneme/grapheme associations or vocabulary may be more language-specific and, therefore, may not be transferable from language to language, thus, they may have to be learned for each language separately. Genesee et al. conclude that the use of French as the language of instruction has had adverse effects on the students' acquisition of Hebrew. The results of the grade 4 evaluation indicate that the immersion students had not yet mastered English spelling patterns and they may have been experiencing a slight lag in vocabulary development. The English reading, language and writing skills of the immersion students were comparable to those of the control students. The immersion students demonstrated a greater proficiency in French than the control group. The Hebrew language acquisition

of immersion students were not hampered by the program. The immersion students' achievement in mathematics was as good as the control students' when assessed on English tests, but better when assessed on French mathematics tests (Genesee, et al., 1978).

In the fourth report (1979) the students in the experimental group are now in grades 3 and 5, and the accompanying control group is in the same grades. The grade 3 immersion students showed superior skill in French; half of the French immersion students in grade 3, the first year of English language arts instruction, reached parity in English language arts with the control group; immersion students outperformed non-immersion students in Hebrew. The grade 5 immersion program students performed as well as the control group; the immersion students showed superiority in French; and the performance of the immersion students performed as well or better in Hebrew, than the control group. It is observed by Genesee et al., that a consistent superiority in French by the immersion program does not occur until the third year; it is hypothesized that the use of another L2, in this case Hebrew, "requires greater consolidation of French skills before the benefits of increased exposure to the language are realized" (Genesee et al., 1979, p. 364).

Literature Review of Second Language Interference

Adiv (1984c) conducted a study exploring the errors made by students studying in a trilingual, i.e. day school setting in the Montreal area. She explores issues related

to the SLL and LI. Adiv analyzed 114 native English-speaking children in French, and French/Hebrew immersion programs in grades 1, 2, and 3, in the Montreal area. The children were given an oral production test consisting of a short interview and a picture-based test. The same test was administered in both French and Hebrew, with the Hebrew test given three weeks after the French version. Errors in both French and Hebrew were classified as: interlingual (transfer from either L1 or L3); intralingual (either developmental errors - errors made by children learning that language as a mother tongue, or overgeneralization), or 3) ambiguous. The interlingual errors were classified into one of two major categories: grammatical or lexical. The grammatical errors were subdivided into: substitution, omission, intrusion, and word order. Lexical errors were subdivided into: word coinage, semantic range, phonological approximation, L1 insertion or L3 insertion.

The interlingual, intralingual, and ambiguous errors were calculated as proportions of the total number of grammatical elements (nouns, verbs, prepositions) produced at each grade level. The proportion of the grammatical and lexical errors were calculated out of the total number of interlingual errors produced in that language and at each grade level. The results show that in both French and Hebrew the proportion of lexical errors decreased across the three grades (i.e., from grade 1 through grade 2 into grade 3). There was a greater decrease in Hebrew than in French. The percentages resulting from this calculation show that the proportion of grammatical errors in grade 3 Hebrew was almost three times that of the lexical errors; the proportion in French was approximately two to one (Adiv, 1981).

In Hebrew, omissions constituted the majority of errors, while in French both omission and substitution errors were frequent. In Hebrew only omission errors were produced repeatedly at all three grade levels. Most of these errors pertained to structures that had to be expressed grammatically by an indirect object (dative case), whereas in English, these concepts are expressed by the grammatical subject, eg. a) 'le-david yeš sefer' [David has a book, literally 'to David there is a book']; 'le-uri kar' [Uri is cold, literally, 'to Uri [is] cold'. In these two examples the children omitted the preposition 'le-' and thus produced a structure parallelling the English pattern: 'david yeš sefer', and 'uri kar'.

In French the only omissions which occurred in the second part of a sequence were produced repeatedly in all three grades, eg., a) 'elle a donné un manteau et mitaines au petit garçon' should be read 'elle a donné un manteau et des mitaines au petit garçon' [she gave a coat and mittens to the little boy]; b) 'Ce garçon a un chapeau et l'autre n'a pas' should be 'ce garçon a un chapeau et l'autre n'en a pas' [this boy has a hat and the other does not].

Another error was substitution errors, in Hebrew, where pronouns were used instead of nouns eg., 'hy' yeš harbeh 'oḥel' should be, 'la yeš harbeh 'oḥel' ['she has a lot of food'].

In French two types of substitution errors were produced repeatedly at all three grade levels. The first kind of error involved the substitution of the verb être [to be] for the verb avoir [to have], eg., 'il est froid' should be 'il a froid' [he is cold, literally 'he has cold'].

The second type of substitution error occurred when the demonstrative pronoun 'ce' [this] was used, instead of the personal pronouns 'il' [he] or 'elle' [she] for inanimate objects, eg., 'c'est ouvert' should be 'elle [la porte] est ouverte' [It [the door] is open].

Adiv suggests that the errors discussed above, with the exception of the French omission errors, could also be labelled as positive transfer eg., French: 'il est heureux' [he is happy], 'c'est magnifique' [it's great]; Hebrew: 'david kore' sefer' [David reads [a] book], 'uri ra'ev' [Uri [is] hungry].

The only grammatical interlingual element which increased steadily from grade 1 to grade 3 were word order errors in Hebrew, which, at times, also involved the omission of a grammatical element: 'ha-yeled ha-ze' [this boy, literally, 'the boy the this']. It was interesting to note that this structure was produced correctly by the grade 1 students, but not by the grade 2 and 3 students, who produced 'ha-ze yeled' [the this boy].

While Adiv's (1981) analysis included lexical interlingual errors as well, they will not be summarized here, since they will not form part of the instructional design and development (hereafter abbreviated as ID & D) model to be illustrated below.

Adiv perceives certain similarities in the way transfer operates in French and Hebrew. She noted that in grades 2 and 3 the relationship between the interlingual and intralingual errors of the two languages were comparable. She also noted that in both languages the interlingual errors decreased more rapidly across the three grades than the intralingual errors. She also found that in both languages the grammatical errors

exceeded the lexical ones at each of the three grade levels. It was observed that certain types of interlingual errors emerged later in Hebrew than in French. It has been hypothesized that it is possible that more opportunities exist for language transfer to occur when the L1 and the L2 are genetically related, as in the case of English and French, than when they are not so related. It was also concluded that the grade 1 children were found to be much less verbal in Hebrew than in French. It is suggested that the late emergence of certain Hebrew interlingual errors seems to be associated with the subjects' increasing level of proficiency in that language. This is illustrated by the fact that some Hebrew structures were initially produced correctly by the grade 1 students, but since they were not produced correctly in grades 2 and 3 it is thought that these structures were produced by the grade 1 students as unanalyzed chunks. This pattern was not observed in French. Perhaps the genetic relationship between English and French has helped the learner identify certain grammatical features in French prior to Hebrew. This factor may have contributed to the emergence of earlier transfer errors in French (Adiv, 1981).

In regards to transfer between the L2 and the L3, Adiv states that lexical transfer is more likely than grammatical transfer. Perhaps when two languages are learned simultaneously transfer between the two is minimal since neither of them is sufficiently dominant over the other (Adiv, 1981).

Since grammatical interlingual errors were most frequent in both languages when the produced utterances paralleled the corresponding L1 and L2 (or L3) forms, it is possible that the learner transfers those structures which he recognizes as possible

patterns in the target language system. However, the persistence of these errors at all three grade levels suggests that although the initial process of expression may have been a creative one, the learner's continued usage of the incorrect utterance invokes the notion that they may have fossilized (Adiv, 1981).

Mastery Learning as a Possible Solution

According to a computer search done on ERIC (Educational Resources Information Centre) few studies have focused on SLL and/or instruction coupled with ML, while none have addressed the combination of L1 and ML. Following is a brief literature review of ML used in SLL.

Griffin (1985) designed a ML curriculum for the Utah State Office of Education to be used in their high schools, for the teaching of German, Spanish, and French. Griffin claims that this Foreign Language Mastery Curriculum focuses on instruction which emphasizes grammar performance in speaking skills aided by the skills of reading, writing, and knowledge of structure. Furthermore, the Mastery Curriculum will enable teachers to provide an overview and order to the instruction of language. This curriculum allows the students to progress in language learning in a logical sequence starting from elementary school and continuing through high school without the need to start from the beginning each time they move from one level to the next (Griffin, 1985).

The main emphasis of Griffin's ML curriculum is oral proficiency. The emphasis

is placed on speaking, while listening, reading, writing, culture, and accuracy also contribute to and sustain oral proficiency. Because oral proficiency is the goal teachers must utilize, more reliable and valid measurements of speaking and understanding skills (Griffin, 1985).

It is towards this end that Griffin has developed four levels of oral proficiency: novice, intermediate, advanced, and superior. These levels do not correspond to any given year in language learning because some students may need more time than others to progress through these four levels. Students begin at the novice level and progress through these four levels in sequence. A student's performance may vary from level to level in each skill, i.e. a student may be at one sub-level in speaking, another sub-level at listening (Griffin, 1985).

Griffin has opted to use a proficiency test instead of an achievement test because he claims that a proficiency test is not linked to any specific set of materials and determines what the student can or cannot do with the language in a general sense. As well, students will be able to use the language for real life activities. The levels of proficiency are novice, intermediate, advanced, and superior. At the novice level students are operating with memorized material; there is no autonomy of language use, nor is there any creating with the L2. At the intermediate level students create with the L2: original sentences occur as students acquire the ability to handle most survival needs and limited social demands. At the advanced level the students demonstrate the ability to narrate and describe in the past, present, and future tense. At the superior level, students are able to speak the language with sufficient structural accuracy and vocabulary

to participate effectively in most formal and informal conversations on practical, social, and professional topics. Griffin employs terms such as 'standard' (which he defines as 'task'), the objective (which he defines as the boundary of the task), and an accuracy statement (which discloses the number and kinds of errors to be expected at a given level (Griffin, 1985).

At the novice level the student concentrates on listening comprehension to use language consisting of one or two words related to elementary needs and expressions of courtesy. Students begin to communicate primarily with memorized vocabulary. Through repetition their expressions progress so they develop some flexibility with words and short phrases. The novice level contains the following sub-levels: listening/thinking, speaking, reading, writing, accuracy, and cultural awareness. Each sub-level contains a standard and objectives i.e., for listening/thinking: understanding and responding to basic greetings and courtesy expressions (formal and familiar address). The same structure is used for the remaining three levels (Griffin, 1985).

One of the main criticisms of Griffin's Mastery Learning Curriculum is that the objectives of the listening/thinking modes are not measurable behaviorally at the novice level, where terms such as 'understand', 'comprehend' and 'identify' are used. One may hypothesize that the objectives listed in the listen/thinking mode are prerequisites to the speaking mode, and that the reading is a prerequisite of the writing, accuracy and cultural modes. Thus passive communication (i.e., reading, understanding) is as important in L2 as active communication, but the former is not measurable except through the latter. As well Griffin's curriculum was designed for use by "adults" -

twelve years of age and older. This curriculum would not necessarily be transferable to the teaching of younger children who learn second and third languages in a more native-like fashion (Griffin, 1985).

Parkinson, Mitchell and Johnstone (1983) describe a curriculum to teach French in first year university at the University of Stirling, Scotland. The work involved five teachers in two secondary schools who were given a package of materials and methodological procedures based on principles of ML for the teaching of French. The package encompassed two units of instruction (covering ten weeks' of material). The teachers were observed and interviewed during these two units. The researchers negotiated instructional objectives with the teachers, as well as encouraging the implementation of these strategies.

The aim of this process was to "explore in an open-ended way the feasibility, problems, benefits and implications of the strategy when introduced under favorable conditions" (Parkinson et al., 1983, p. 43). By the commencement of the study the classes involved had already been learning French for four months. The curriculum was a pre-pilot version of a French course written by the Scottish Education Department and was designed with a mastery principles influence. The materials provided for this study were an alternative form of the earlier one, adapted by the researchers. The teaching package of materials and methodological guidelines included audiovisual materials (tapes, film strips, flashcards) as well as hard copies (pupil's book, activity sheets, test materials, pupil progress cards, and teacher's notes). In the report the authors concentrated on four elements relating to the ML strategy: explicit objectives, diagnostic

tests, differentiation, and unit mastery requirement (Parkinson et al., 1983).

The target objectives were included in terms of grammar and vocabulary; the proficiency required to demonstrate mastery involved understanding, recognition and speaking in a drill-like context (Parkinson et al., 1983).

The teachers explained to the students at the beginning of each unit the objectives, and that aid would be available in order to help them attain mastery. The teaching was organized in order to accommodate the objectives in a systematic fashion. The testing and differentiation were related to these objectives. The pupils' version of the objectives were organized into ten domains or 'areas', each containing a small number of sub-areas including simple vocabulary items, combination of structure and vocabulary. A more detailed account of the objectives was given to the teachers. Pupils were expected to demonstrate mastery of areas one to nine in a listening test, and areas one to five and eight to ten in a speaking test; there was no mastery requirement for reading or writing (Parkinson et al., 1983).

Each area was accompanied by a five-item diagnostic test. This test was used for both the listening and the speaking test for that area. The students' marks were recorded on a 'pupil progress card'; pupils who failed to score five out of five were required to take the test again later, and to retake it as often as necessary until they scored 100 per cent (Parkinson et al., 1983).

Remedial treatment for pupils who had failed a test was provided before retesting. The types of remediation included working with the teacher (as an individual or in a remedial group), completing an assignment either alone or in a group. Pupils who scored

five out of five in the area could either begin work relating to a new area, or 'extension work' taking them beyond the basic objectives. In this classroom environment there would thus be periods of time when the class would be divided into groups engaged in different work. Teachers were encouraged to ensure that this differentiation would be tailored to the needs of the individual students, as revealed in the diagnostic tests. Teachers were also encouraged to change the groups frequently on the basis of the test results, therefore eliminating semi-permanent groups, i.e., 'more able' and 'less able', to 'extension' and 'remedial' work respectively (Parkinson et al., 1983).

Four summative tests were included in the instructional programme, encompassing listening and speaking skills for each of the two units. These were identical to the diagnostic tests except they were administered in a single sitting, and thus consisted of between 15 and 25 items (Parkinson et al., 1983).

Ninety percent of the teachers were observed and audio recorded by a member of the research team. At each lesson the observer noted information on pupil attendance, membership of group(s) assigned by the teacher, identity of pupil(s) interacting with him/her, and materials being used (Parkinson et al., 1983).

According to the results of the diagnostic and summative tests, there were few failures in the first attempts. Although the progress cards provided for up to three retests, the teachers never got as far as the third retest, and there were only eleven instances of the second retest. It thus seems that in a normal school situation, a single retest is all that can be routinely expected (Parkinson et al., 1983).

The above discussed articles dealt with applying the principles of ML to a

curriculum of SLL. However, for the purposes of this particular instructional design only certain aspects of the curriculum will be applied to ML, namely those areas wherein LI occurs, i.e., speaking and writing (active learning activities or non-producing as opposed to passive learning activities like listening and reading).

With the information garnered from the above-cited studies an instructional design, development and evaluation has been formed. Before we proceed, a literature review of ML is required.

Mastery Learning

This section will cover ML, its origins, as well as its development, followed by an overview of criticisms and as well as supporters.

Introduction to Mastery Learning

In this section ML, as defined and outlined by Bloom, will be discussed, followed by a review of the ML literature.

Benjamin Bloom, generaly considered to be the founder of the ML model (Romiszowski, 1981), states that ML is a means "to supplement regular group instruction by using diagnostic procedures and alternative instructional methods and materials in such a way as to bring a large proportion of the students to a predetermined standard of achievement." (p. 181). He continues to state that "the essence of mastery learning

strategy is group instruction supplemented by frequent feedback and individualized corrective help as each student needs it". The underlying belief of ML is that most of the students will reach mastery levels of achievement within the prescribed period of time, i.e., regular term, semester, or calendar period in which the course is usually taught. Although it is understood that some students may spend more time than others learning the subject, it is believed that if the majority of the students reach mastery levels at the end of the time allocated for the subject, affective as well as cognitive results will be present (Bloom, Madaus & Hastings, 1981).

Carroll's Model of Mastery Learning

Bloom's practical model of ML is based on the theory outlined by Carroll who proposed to "design ... a model of factors affecting success in school learning and of the way they interact" (Carroll, 1963, p. 723). He states that the optimum model of learning will allow the learner "to succeed in learning a given task to the extent that he spends the amount of time that he needs to learn the task" (p. 725). This definition contains three parts which require clarification:

1) 'spending time' refers to the actual time the student spends in the act of learning;
2) certain factors determine how much time the learner spends learning;
3) certain factors determine how much time a person needs to spend in order to learn the task at hand.

There are five factors relating to the time needed to learn, the time spent in

learning, and how these factors interact to result in learning. These factors include:

1) aptitude for learning this task - the amount of time needed by the pupil to learn the task under 'optimal conditions;

2) ability to understand instruction;

3) quality of instruction - the degree to which instruction is presented so that it will not require additional time for mastery beyond that required when taking aptitude into account;

4) opportunity - time allowed for learning;

5) perseverance - the time the learner is willing to spend in learning.

These factors can be divided into those originating from the individual learner, and those originating from the external: factors 1, 2, and 5 fall into the former category, while factors 3, and 4 fall into the latter (Carroll, 1963).

Carroll created a formula using these 5 factors which express the degree of learning for any individual doing any task: a function of the ratio of the amount of time the learner actually spends on the learning task to the total amount he needs:

$$\text{Degree of learning} = f\left(\frac{\text{time actually spent}}{\text{time needed}}\right)$$

The numerator is equal to the smallest of the following three quantities: opportunity;

perseverance; and aptitude. Aptitude - the amount of time needed to learn is also the denominator of the fraction (Carroll, 1963).

Bloom's Elaboration of Carroll's Theoretical Constructs

Bloom has taken some of the theoretical constructs outlined by Carroll (1963) and has modified and elaborated them.

Aptitude for particular kinds of learning: in conventional educational thinking states that individuals differ in their aptitude for specific types of learning, and the number of tests measuring aptitude reflects this view. However, high scores on these aptitude tests do not mean that only high achievers can score at high levels, or to put it another way, "students with high levels of aptitude can learn complex ideas of the subject while the students with low levels of aptitude can learn only the simplest ideas of the subject" (Bloom et al., 1981, p. 53). Bloom asserts that most students, up to 90 percent, can master what is taught to them. He states that it is the responsibility of the instruction to find the means which would enable the student to master the subject at hand. Borrowing Carroll's definition of aptitude ("the amount of time required by the learner to attain mastery of a learning task") Bloom states that at the top of the aptitude distribution (the upper one to five percent) there may exist students who have a special talent for the subject. At the other extreme of the aptitude distribution (estimated at approximately five percent) there are students who have specific disabilities for certain types of learning. In between these two extremes there are approximately 90 percent whom Bloom and his colleagues believe can master the given subject. It is understood

that some students may require "more effort, time, and help to achieve this level [than others]" (Bloom et al., 1981, p. 54). The basic problem for a ML strategy is to find the means to reduce the amount of time the slower student requires in order to attain mastery to a point where it is not prohibitively long. More effective learning conditions can reduce the amount of time which all students, and especially those with lower aptitudes, require to master a subject (Bloom, et al., 1983).

In terms of the quality of instruction, Bloom, et al., (1981) assert individual students may need very different types and qualities of instruction to achieve mastery.

Bloom defines the construct ability to understand instruction as "the ability of the learner to understand the nature of the task to be learned and the procedures to be followed in learning it" (p. 56). Due to the fact that students' abilities interact with both the instructional materials and the instructor's skills in teaching, modifications in instruction are required to meet the needs of the individual students. These modifications may take the form of: group study, tutorial help, textbooks, workbooks and programmed instructional units, audiovisual methods, academic games (Bloom et al., 1981).

The notion of perseverance, introduced by Carroll may be enlarged to encompass the role of the student's attitude in learning a subject or instructional unit. Bloom asserts that as students find their efforts intrinsically rewarding, and extrinsically rewarded they are likely to spend more time on a particular learning task. If, on the other hand, they become frustrated in learning, they will reduce the amount of time devoted to it. Although the frustration level of students vary, it is believed that eventually all students will give up a task if it becomes too painful for them. The manipulation of the

instruction and learning materials will be effective in helping the students master a given learning task, regardless of their present level of perseverance. Thus as the frequency of reward and the evidence of success in learning increases, so does the student's perseverance in a le rning situation (Bloom et al., 1981).

The time allowed for learning concept outlined by Carroll in schools may remain constant in a given classroom situation, but the student's need for time may vary, i.e., some students may require more time to complete a given task, while others may demand less time. Bloom elaborates upon Carroll's basic assumptions, that aptitude determines the rate of learning, and that most if not all students can achieve mastery if they devote the amount of time needed to the learning. However, the student must be allowed enough time for learning to occur. Those students with high levels of aptitude are likely to be more efficient in their learning and will require less time for it than those with lower levels of aptitude. If instruction and students' use of time were to become more effective, most students will most likely require less time to master a subject, and the ratio of time required by the slower learners compared to that needed by the faster learners may be reduced from 6 to 1 to less than 2 to 1 (Bloom et al., 1981). According to research undertaken by Bloom slower learners are able to learn equally complex and abstract ideas, are able to apply them to new problems, and retain the ideas as well as the faster learners, in spite of the fact that they learned with more time and help than was afforded to others (Bloom et al., 1981).

Literature Review of Mastery Learning

This section includes two sub-sections: a) an overview of those studies in which ML have been shown to be effective (Bloom, 1983), and b) critiques of ML (Slavin, 1987a), defence (Guskey, 1987, Anderson & Burns, 1987, and Bloom, 1987), and counter-critiques (Slavin, 1987b).

Bloom, in citing studies done by Block and Burns (1976) and Bloom (1976), asserts that the majority of students under ML conditions reach high levels of cognitive achievement on the summative tests used for grading purposes. The students also do very well on measures of retention and higher mental processes when compared with the top fifth of the control group of students. As well, almost all the ML students who use the corrective procedures achieve scores above the average of the control students. From the results of these studies Bloom concludes that if the ML procedures are implemented in the introductory courses in a given subject the students will maintain these new learning approaches in subsequent courses in the same subject, and will thus require less further special help or extra time.

Bloom further states that when ML is used in major academic courses students show major gains in 'learning to learn' in that students devote more of their classroom time to active learning, and they benefit from positive affective feelings from their success. They develop skills in providing feedback to themselves about what they have learned well and what they still need to do to improve their learning in those areas where they have not learned as well. The students also become more adept in seeking answers, securing help from books, friends, and teachers in those areas which they find difficult

to master (Bloom et al., 1981).

Positive long-term results of implementing ML in the classroom at the beginning of new subjects or new school situations will promote a lesser need for these procedures in subsequent courses in the same subject, however it is possible that the new learning abilities may require some support in the later subjects or terms until they are strong enough to be self-maintaining (Bloom et al., 1981).

Two of Bloom's students (Burke, 1983 and Anania, 1981) conducted a study comparing conventional instruction, ML, and tutoring. The ML class consisted of students learning the subject matter in a class with about thirty students per teacher. The instruction was the same as in the conventional class and was usually conducted by the same teacher. Formative tests (the same tests used with the conventional group) were given for purposes of feedback followed by corrective procedures and by parallel formative tests to determine the extent to which the students had mastered the subject matter. The students were randomly assigned to these three learning conditions: initial aptitude test scores, previous achievement in the subject, and similarity of initial attitudes and interests. The amount of time for instruction was the same in all three groups except for the corrective work in the ML and tutoring groups (Bloom, 1984a, 1984b).

Burke (1983) and Anania (1981) replicated this study with four different samples of students at different grade levels and with two different subject fields. The results showed that the average student under ML was one standard deviation (or above 84 percent) above the average of the control class. The variation of the students'

achievement also changed under these learning conditions - approximately 70 percent of the ML students attained the level of summative achievement reached by only the highest 20 percent of the students under conventional instructional conditions (Bloom, 1984a).

Slavin (1987a) conducted a meta-analysis of ML experiments. A meta-analysis is the impact a treatment has when using a metric called 'effect size (Slavin, 1987a). The effect size is the post-test score of the experimental group minus that for the control group divided by the control group's standard deviation. Slavin's purpose was to review the research of the effects of group-based ML on the achievement of elementary and secondary students in order to understand the validity and the practical implications of the findings. The review used a method developed by Slavin for synthesizing large literatures called "best-evidence synthesis", which combines the use of effect size as a common metric treatment effect with narrative review procedures (Slavin, 1987a).

Anderson and Burns (1987) note the danger in reporting the effect sizes in the manner Slavin (1987a) has done. In one particular study mentioned by Slavin (1987a) effect sizes for a standardized test and six effect sizes for experimenter-made tests were used. For the standardized tests the resulting mean effect size was 0.04; however the effect sizes ranged from -0.51 in grade 6 to 0.54 in grade one. Only four of the 18 effect sizes were between -0.21 and 0.20. Thus, according to Anderson and Burns the effect size in such a case would not be a source of information on the usefulness of ML. Thus in this cases two difficulties of using effect sizes are shown: a) how to summarize studies which produce multiple effect sizes; b) the possibility that the mean effect size may be misleading (Anderson & Burns, 1987).

Guskey (1987) states, in his criticism of Slavin's meta-analysis, finds that Slavin's use of gain scores in the numerator of the effect size is lowered. Slavin (1987b) counters that if the experimental and control groups have the same pre-test scores, both Guskey and Slavin's pre-test scores would be the same. However, if the control group had higher pre-test scores than the experimental group, Slavin's estimates would be higher. As well, using post-test scores rather than gain scores would not change the median effect sizes (Slavin, 1987).

Slavin (1987a) raises several drawbacks to ML. The first is the issue of 'unequal time'. Slavin states that ML theory demands that learning be held constant and that time is allowed to vary. Slavin contends that this is the very opposite of traditional instruction. He states that if the total instructional time allocated to a particular subject is fixed, then a common level of learning for all students is likely to require taking time away from high achievers to increase it for low achievers. Bloom (1987) agrees with Slavin's observation that the higher-achieving students (the upper 10 percent of a class) will not benefit from ML, and goes on to state that it is the responsibility of the schools to improve this situation.

Slavin (1987a) asserts that it is not the norm in educational research to systematically allocate an experimental group more instructional time than a control group, except in studies of the effects of time itself. In these cases the results would indicate that any sensible instructional program would produce significantly greater achievement than a control method that allocated 20 percent to 33 percent less instructional time. Thus studies which fail to hold time constant across treatments

essentially confound treatment effects with effects of additional time. According to Slavin (1987a) ML does indeed commit this error.

In his detailed criticisms Slavin (1987a) states that there are three claims that proponents of ML make for the effectiveness of ML:

A) the 'strong claim': ML is more effective than traditional instruction even when instructional time is held constant and achievement measures register coverage as well as mastery;

B) the 'weak claim': ML is an effective means of ensuring that teachers adhere to a particular curriculum and students learn a specific set of objectives;

C) a second 'weak claim': ML is an effective use of additional time and instructional resources to bring almost all students to an acceptable level of achievement.

Anderson and Burns (1987) respond to each of these claims. In regards to claim A) they state that no single standardized test can register for both coverage and mastery, and that multiple outcome measures should be used routinely in all instructional research, and that these should be tied in directly to what is expected to be learned by students in the treatment and control groups. In response to claim B) Anderson and Burns (1987) state that this claim is similar to claim A) with the exception that here Slavin is advocating locally designed tests. Anderson and Burns do not understand why these tests would be more acceptable since they also cannot measure both mastery and coverage. In response to claim C) Anderson and Burns (1987) claim that most teachers, both

conventional instruction and ML teachers may have to provide instruction at rates not suitable for some students in the class. Also in the curricular focus claim (C), Slavin, in his meta-analysis, voices a concern that those teachers instructing in a ML follow specific objectives more closely than control classes did. Anderson and Burns (1987) state that while this may be true, it is up to the discretion of the teacher to decide what is essential and what is not. Guskey (1987) states that ML "places no restrictions on the scope, depth, or level of the objectives that are to be taught or that students should learn" (p. 226).

Slavin (1987a) categorizes the findings of the strong claim (A) and finds seven ML studies which meet the inclusion criteria and which provide equal time for experimental and control classes, and used standardized measures of achievement. He finds that the effects of ML on standardized achievement measures are small: the median effect size across all seven studies is +.04. The only study with a larger effect size (+.25) was a semester-long experiment in inner-city Chicago elementary schools by Katims, Smith, Steele, and Wick (1977) which had a serious design flaw: teachers were allowed to select themselves into ML or control treatments or were assigned to conditions by their principals. Slavin suggests that teachers who were most interested in using the new methods and materials, or those who were assigned by their principals to use the new programs, were better teachers than were the control teachers. Guskey (1987), in response to Slavin (1987a) states that the 'best' evidence for ML should not only have to come from those studies where the teaching of ML is assigned, required, or mandated.

In discussing the results of the 'curricular focus' claim (B) Slavin cites collected

studies which used experimenter-made, criterion-referenced measures and those which provided experimental and control classes with equal amounts of instructional time. Nine studies were included in this analysis. All but one (Kersh, 1970) of the studies found positive effects of ML on achievement of specified objectives, with five studies in an effect size ranging from +.18 to +.27. The overall median effect size for the eight studies that used immediate post-tests is +.255. It should also be borne in mind that these studies varied widely in duration, experimental and control treatments, so this median value should be interpreted with caution (Slavin, 1987a).

In a further discussion of the characteristics and outcomes of group-based ML studies in which the ML classes received extra time (Slavin, 1987a) for corrective instruction (type C) four studies were examined. The median effect size for immediate post-tests from the five comparisons in four studies is +.31, but none of three retention measures found significant differences (median ES = -.03). However, since the four studies differ markedly in experimental procedures these medians have little meaning. Slavin concludes from his analyses that the effect sizes for the small number of unequal time studies (following type B) are no more positive than were those reported for other studies using experimenter-made measures (following type C), in which ML classes did not receive additional time. Both of the unequal time studies that assessed retention found that any effects observed at post-test disappeared as soon as soon as four weeks later. Substantial achievement effects of extra time for corrective instruction appear to depend on provisions of substantial amounts of extra time, well in excess of 20 to 25 percent.

Slavin (1987a) questions the amount of time ML corrective instruction demands outside regular class time, i.e., lunch, recess, or after school. Slavin cites a study authored by Bloom (1984a, 1984b) in which Bloom cites dissertations done by his graduate students (Burke, 1983; Anania, 1981) in which the corrective instruction provided to the ML classes averaged 20 percent to 33 percent, or one day per week. Another study cited by Leyton (1983) shows students receiving two to three periods of corrective instruction for every two to three weeks of initial instruction. In studying Bloom 1984a and 1984b this author could only find one reference to 'time on task in the classroom' in Bloom 1984a, where it is stated that students in conventional instruction spent 65 percent, ML students spent 75 percent, and tutored students spent 90 percent. Leyton's study, discussed in Bloom (1984a), reveals that the corrective process encompassed three to four hours of time during the first week of the course. No mention was made of additional aid in the remaining time of the course, therefore bringing Slavin's criticism under question.

Slavin (1987a) argues with ML theorists Block (1972), Bloom (1976) and Guskey & Gates (1985) who have stated that the 'extra time' issue is not as problematic as it seems, because the time needed for corrective instruction should diminish over time. However, after examining numerous articles Slavin concluded that no evidence from long-term practical applications of ML supports this possibility (Slavin, 1987a).

Slavin (1987a) states that Bloom's claim of being able to raise learning 1 sigma (ES = +1.00) is based on studies which provided additional instructional time to the experimental classes. Slavin suggests that in longer term and larger studies with

experimenter-made measures effects of group-based ML are in fact much closer to 1/4 sigma, and in studies with standardized measures there is no positive effect (Slavin, 1987a). Anderson and Burns (1987) agree that the effect sizes for ML do not approach those of the tutoring, as discussed by Bloom (1984a, 1984b), but also state that it is a challenge for which educators should strive. Bloom (1987) in response to Slavin's (1987a) statement that a 2 sigma result is not possible for ML counters by underscoring that this is only possible when two or more variables are implemented, i.e., ML and improved teaching of high mental processes or ML and improved instructional material.

Another of Slavin's (1987a) criticism is the unequal objectives issue. Most studies of ML according to Slavin, use experimenter-made summative achievement tests as the criterion of learning effects. These tests are likely to correspond more closely to the curriculum taught in the ML classes than to that taught in the control classes. Bloom (1987) counters Slavin (1987a) by stating that teacher or experimenter-made measures show a more positive showing for ML than do standardized tests on a short-term basis, i.e., less than three years. However, on longitudinal studies in which the same group of students receive ML instruction standardized tests show an increased level of performance.

Slavin (1987a) used the following criteria for inclusion in his meta-analyses:

Germaneness

1) students were tested on their mastery of instructional objectives at least once every 4 weeks;

2) before each formative test, students were taught as a total group;

3) ML was the only or principal intervention;

Methodological Adequacy

1) Studies had to compare group-based ML programs to traditional group-paced instruction not using the feedback-corrective cycle;
2) Evidence had to be given that experimental and control groups were initially equivalent, or the degree of nonequivalence had to be quantified and capable of being adjusted for, in computing effect sizes;
3) Study duration had to be at least four weeks (20 hours);
4) At least two experimental and two control classes and/or teachers had to be involved in the study;
5) The achievement measure used had to be an assessment of objectives taught in control as well as experimental classes.

Anderson and Burns (1987) point out a drawback of Slavin's (1987a) criteria for inclusion in his meta-analysis. Slavin did not include those studies which had a duration of less than four weeks. Anderson and Burns correlated study length ranging from one to thirty-six weeks with mean effect size for thirty-four of the thirty-five studies mentioned by Slavin and found that the correlation was not significant at -0.12, showing that study length is not related to the magnitude of the effect. Guskey (1987) states that Slavin's choice of a four week cut-off point was a purely arbitrary one, since a number of studies which had a duration of three weeks showed positive results (Guskey, 1987).

Slavin (1987b), in his response to Anderson and Burns (1987), stated that four

weeks is too short a time to show external validity. He also states that including three week studies would lead him to reach the same conclusions.

CHAPTER 3

INSTRUCTIONAL DESIGN, DEVELOPMENT AND EVALUATION

Justification for Design of Instruction

The Jewish day school programs in Montreal are varied in nature, depending on the school's religious orientation, and the languages offered. The present study will only concern itself with those schools where English is taught as the mother tongue, with French and Hebrew being taught as the second and third languages. Those day schools where French is taught as the first language will not be discussed here.

The existence of day schools in Montreal dates from 1934 with the foundation of United Talmud Torah Schools (Rosenberg, 1970). Up to the last two decades the main languages of instruction were English and Hebrew, with a daily period of French. In the early 1970s French Immersion day schools were established, as per parent request, to offer children more access to French language instruction. With the passing of certain educational laws demanding an increase in the number of hours devoted to French in all school systems, the day schools have responded in a variety of ways. Some day schools have lengthened the school day, while others have begun teaching certain subjects in French, i.e., gym, science, arithmetic, geometry, while still others have combined these two strategies. In essence there are now two major types of trilingual programs existing in the day schools. One is the regular trilingual program where English, French, and Hebrew are taught, and the second is the double-immersion program offered in grades one and two where instruction takes place only in the two second languages - French and

Hebrew. English is only introduced in either grade three or grade four whereby the program becomes trilingual in nature (Adiv 1989).

The Regie de la Language Française states that French must be taught in elementary schools for 14 hours a week. Most day schools accommodate this law by teaching English for 9 hours, and Hebraica and Judaica for 10-12 hours. In order to accommodate immigrant students who wish to attend day school, but are considered ineligible to attend English language schools under Bill 101, special French day schools have been opened. In these schools, as well as those day schools where French is the first language of instruction, French is taught for 17 hours a week, Judaica and Hebraica for 10-12 hours, and English for approximately five hours. In French Immersion (i.e., double-immersion) programmes, encompassing grades 1 and 2, French is taught 20 hours a week, Judaica and Hebraica 12 hours, and English three hours a week; in grade 3 French is taught 18 hours weekly, Hebraica and Judaica 12 hours, and English five hours weekly.

According to the percentages quoted earlier, LI may encompass anywhere from five percent to 51 percent of learner's errors. According to Adiv's (1981) study of intralingual and interlingual errors committed by grade 1, 2, and 3 students' interlingual errors were greatest in grade 1 and lessened in grades 2 and 3: French interlingual errors: grade 1 - seven percent, grade 2 - six percent, grade 3 - four percent; Hebrew interlingual errors: grade 1 - 12 percent, grade 2 - seven percent, grade 3 - six percent. Intralingual errors (i.e., errors ascribed to normal language development in children learning that language as L1) were higher: French intralingual errors: grade 1 - 13

percent, grade 2 - 14 percent, grade 3 - 11 percent; Hebrew intralingual errors: grade 1 - 12 percent, grade 2 - 11 percent, grade 3 - 13 percent.

Adiv (1981) alludes to a more rapid decrease in French intralingual errors as opposed to Hebrew intralingual errors due to the children's greater proficiency in French than in Hebrew. Thus it may be hoped that intralingual errors in French will continue to decline as students age and that this same trend will manifest itself in Hebrew intralingual errors as well.

Adiv (1984c) gave an oral production test to 114 English speaking students in grades 1, 2, and 3, half of whom were studying in a early French immersion program (FF) and half in a French-Hebrew early immersion program (FH). The test involved: a) a short interview in which the student was questioned about his/her family; and b) a picture-based test containing nine sets of pictures, each set forming a short story. In order to influence the student to use adjectives, certain objects of different sizes and colors were used in the pictures. Each test lasted 15 minutes, and the same test was used in both French and Hebrew, but the French version was administered three weeks before the Hebrew version.

In the analysis five grammatical classes, including pronouns, verbs, articles, adjectives, and prepositions were examined. The errors occurring in each of these classes were counted, and then ranked according to increasing percentages of errors. The results were analyzed according to the program and the grade. It was found that the FF (French Immersion) group showed a significant decrease in the proportion of errors in eleven of the twenty grammatical classes analyzed from grade 1 to grade 3. The

French group from the FH (Trilingual) program show a significant decrease in the percentage of errors in eight of the twenty grammatical classes (Adiv, 1984c).

From the ranking of the hierarchies of difficulty Adiv drew some observations. She found that when two members of a pair involved a gender distinction, i.e., third person subject pronouns or adjectives, the masculine member of the pair was produced with greater accuracy than the corresponding feminine form. Whenever members of a pair involved number distinction, i.e., verbs, it was the singular member which was produced with greater accuracy than the corresponding plural member. In these cases the error usually involved the substitution of the other member of the pair, i.e., 'il' [he] for 'elle' [she], 'gros' [fat (m)] for 'grosse' [fat (f)], 'boit' [drinks (s)] for 'boivent' [drinks (pl)]. Adiv cites a possible reason (attributed to Greenberg) who stated that the unmarked member of a pair (the shorter and the uninflected one), is also the more independent of the pair and is thus used in neutral situations and in contexts where both the marked and the unmarked member are included. Slobin is also cited (1973) as stating that he observed that the unmarked forms are first to emerge in L1 acquisition. The findings of Adiv's study, as well as other studies, suggest that a similar process occurs in the course of L2 development. Slobin (1973) is further cited to state that markers which are semantically based are learned prior to those that are solely based on arbitrary criteria. This hypothesis, according to Adiv, could explain the findings that a) French plural determiners did not present any difficulty to the learner (Hebrew determiners do not vary according to gender and number); b) plural subject pronouns in Hebrew were produced with a lower percentage of errors than plural verbs (in oral French there is no

distinction between third person singular and plural subject pronouns); c) feminine subject pronouns (all of which, as noted above, had human referents) tended to move upwards in rank. In the French Immersion program where improvement was more pronounced, this move was significant (from thirteenth rank in grade 1 to eighth rank in grade 3) (Adiv, 1984c).

Adiv (1984c) continues to discuss those grammatical classes which are not related to gender and number by discussing three groups of grammatical classes: A) those which ranked high on the hierarchies of difficulty, and thus did not seem unduly difficult to acquire, B) those which show a significant movement upward in rank order from grade 1 to grade 3 and therefore can be considered acquired, and C) those which ranked consistently lowest on the rank orders and which seem the most difficult to acquire, but may also be the most likely candidates for fossilization. These three categories will be elaborated upon below (Adiv, 1984c).

A) In the French study Adiv found that the unmarked forms and the elided forms ranked consistently within the upper ranks of the hierarchies, and that by grade 3 these forms can be considered acquired in both the FF (French Immersion) and the FH (Hebrew) programs, if one uses the 10 percent error threshold, as advocated by Dulay et al., (1982) as a criterion for such acquisition. The prevailing error was the failure to drop the vowel of the article, thus producing forms such as 'le oiseau' instead of 'l'oiseau' [the bird].

In the Hebrew study the unmarked one was the invariant article 'ha-', similar to the English definite article 'the'. In Hebrew the article is repeated in front of certain

other elements 'ha-bayt ha-gadol' ['the big house', literally 'the house the big']. In grade 1 omission of the article was the only type of error produced. In grades 2 and 3 another type of deviant structure appeared which involved omission and an error in word order: 'ha-šeni yeled' instead of 'ha-yeled ha-šeni' ['the second boy', literally 'the boy the second']. Adiv concludes that L1 transfer is present here since a one-to-one correspondence exists between the deviant structure produced and the corresponding English pattern (Adiv, 1984c).

B) In the French tests, in analyzing the changes in the hierarchies of difficulty Adiv observed that those few grammatical classes which involved a significant upward movement from grades 1 to 3 included the feminine subject pronouns and the object pronouns. However, this change was only present in the FF program, and not the FH program. Another error found involved the form 'elle a demandé lui quelque chose' [she asked him something] which could either be attributed to transfer or overgeneralization. In her study errors of this type encompassed 13 percent of all errors in this grammatical class. The vast majority of other errors were omissions: 'La maman demande qui a mangé le gâteau et la petite fille répond j'ai mangé' [The mother asks who ate the cake and the little girl answers I ate], instead of 'je l'ai mangé' [I ate it]. The omission of the pronoun 'en' encompassed one fourth of the omissions in grades 2 and 3. In Hebrew the significant improvement included the two impersonal forms 'yeš' and ''eyn' and the preposition ''et'. Errors in the impersonal included the negative form of ''eyn', leading to such errors of 'lo' yeš 'uga 'al ha-sulhan' instead of ''eyn 'uga 'al ha-šulḥan' [there is no cake on the table]. The error in this example stems from changing the affirmative

statement 'yeš 'uga 'al ha-šulḥan' [there is cake on the table] into a negative statement by substituting the negative 'lo'' for the 'yeš' instead of the correct ''eyn'. According to Adiv this error can be classified as L1 interference because English does not have a distinct term for 'is not'.

The development of the preposition ''et', an accusative marker when the direct object is marked for determination, is highly susceptible to L1 interference, since English does not require any preposition to introduce direct objects. There was a rapid improvement in performance in grades 2 and 3. In grade 1 there are 59 percent errors, all omissions.

C) The third group of grammatical features ranked lowest on the hierarchies of difficulty. The two classes include the reflexive pronouns and the contracted forms of the article. As well the idiomatic expressions ranked lower in grade 3 than in grade 1 because of the upward movement of the object pronouns. In these classes the deviant structures could be the result of either L1 transfer or intralingual overgeneralization: 1) 'Il est froid' should be 'il a froid' [he is cold, literally 'he has cold']. Here there is overgeneralization from the form 'il est content' [he is happy]; 2) 'Elle lave ses mains' should be 'Elle se lave les mains' [she washes her hands]. Here there is overgeneralization from the form 'elle lave sa poupée' [she washes her doll]';
3) 'Elle parle à le garçon' should be 'elle parle au garçon' [she talks to the boy]. Here there is overgeneralization from the form 'elle parle à l'enfant' [she talks to the child]. Only in the case of the contracted forms in example 3 were the errors frequent and persistent.

In Hebrew the two lowest ranking grammatical classes were the feminine singular adjectives and the possessive and attributive constructions (for a discussion of the former see above). The possessive constructions refer to sentences such as 'la-yalda yes 'uga' [the girl has a cake, literally, 'to the girl there is a cake']. The attributive constructions refer to sentences such as 'la-yeled kar' [the boy [is] cold, literally, 'to the boy [is] cold']. Errors made include 'ha-yalda yes 'uga' and 'ha-yeled kar' (Adiv, 1984c).

Instructional Design and Development

Since developmental errors will be solved through the student's continued study of the language as well as personal development, it is to the interlingual LI errors we should address ourselves. The ID & D model to be followed in essence will be that of Dick and Carey (1985). Aspects of ML design will be implemented within Dick and Carey's model. Especially noteworthy will be the continuous checking, and the retaking of the test within the ID & D.

In reference to Dick and Carey's model, both the pre-test and post-tests are compatible with the ML model. An extra test will be added to complete the unit. This test is similar to the embedded tests outlined by Dick and Carey, except it has been modified to fit the ML model through the addition of the concept of 'feedback', which will be available to the student at the end of the unit. In accordance with ML dictum, the students who have not achieved a mastery of 80 percent will have the opportunity to

rewrite those items until the mastery score is achieved.

While Adiv's (1984c) study, which serves as the basis of the pre- and post-tests evaluation of this paper, used oral tests to gain information on the concept of LI the present study will focus on written production. While both written and oral expression are active activities in that they produce a measurable response (unlike reading and listening which cannot be measured directly, but only indirectly through active production) they differ in one very important aspect: oral production is usually expressed without much forethought being given to grammatical rules, since the response time demanded in oral production is so much shorter. More time can be afforded written production, through written compositions and written tests.

The present study is based mainly on written evaluation of a recognition test, namely multiple choice and fill-in-the-blanks. Remediation is a combination of written and oral forms. A teacher's aid, or a teacher would be needed to work with those students who have not mastered the material. In the ID & D illustrated in this paper, those errors which are of average difficulty were implemented in a classroom situation. The reason for this decision was to ascertain whether an error, committed at a fairly steady rate, can be corrected in order to prevent that error from becoming fossilized.

In order to reduce confusion the term 'mastery test' will be used here instead of the term 'embedded test', as employed by Dick and Carey. The difference lies in the fact that a mastery test includes the concept of feedback to the student, while an embedded test does not.

The items described below are the result of modifications made on the original

items given to a pilot group of students in another day school. The discrimination index (DI) and difficulty level (P) of the pilot study's test items, which served as a guide for the present pre- and post-tests, are described in the section 'Pilot Study - Results Section' for both French and Hebrew below.

The ID & D focuses on four of the twenty items in the French tests, and on four of the thirteen items in the Hebrew tests. It serves to ascertain: 1) if the results of this study are similar to the results of Adiv's (1984c) study; 2) whether the design has aided the students in their struggle to overcome LI errors for that particular grammatical concept; 3) whether there is a carry-over effect from one grammatical category to another in terms of either eradicating or decreasing the errors due to LI; and 4) whether there is a transfer of knowledge from the written to the spoken expression.

In order to ascertain the LI errors of the students in the present study, a pre-test and a post-test were designed. The author has taken the forms delineated by Adiv and composed test items for them. The pre-test serves to ascertain whether the errors, meticulously described and discussed by Adiv (1984c) are committed by those students participating in the present study. The post-test serves to ascertain whether the experimental group learned from the ID & D.

Following is a detailed explanation of each of the grammatical forms unearthed by Adiv in her oral production study, followed by items composed for the multiple choice pre- and post-test tests for this study.

While both French and Hebrew LI errors will be discussed, we will first examine French errors.

Evaluation of the French Instructional Design and Development

Adiv (1984c) ranked the LI errors committed in French into eighteen grammatical classes in the French Immersion program (hereafter abbreviated as FF), and into seventeen grammatical classes in the day school, or trilingual program (hereafter abbreviated as FH). Since the percentages of errors committed differ from one to the other, both will be mentioned.

According to Dulay et al. (1982) a component is considered learned when a ten percent error level is reached. Therefore five components in the FF program are considered learned, while four components are considered learned in the FH program. The difference between the two programs lies in the fact that more time is devoted French in the FF program than it is in the FH program (Adiv, 1984c). It is possible to hypothesize that given sufficient time the students studying in the FH program will ultimately reach the levels of the students in the FF program. However, it is imperative to correct these errors before they become fossilized (Adiv, 1984c).

The items of the pre and post-test which are addressed in the instructional design are items 2, 6, 10, and 13.

The elided form, third person masculine subject pronouns, masculine singular article, third person singular present indicative, plural articles, masculine singular adjectives, and the infinitive are considered learned, according to the criterion of Dulay and Burt. These grammatical concepts will not be illustrated as items in the pre- and post-test. However, in order to furnish a full picture of the grammatical elements

employed by Adiv (1980a), an explanation of these concepts are included here. Following the description of each grammatical category are the pre- and post-test items, including the English translation. Since statistical analyses revealed no significant differences between the experimental and control groups, the pre-test choices of the two groups were combined. Following these results is a comparison with Adiv's (1984c) results.

The elided form l': when the definite articles 'le' and 'la' is placed before a noun starting with a vowel, it is changed to 'l''; example: 'l'oiseau' [the bird]. This form was incorrectly produced in speech two percent in grade 1, 10 percent in grade 2, and five percent in grade 3 in the FF program. In the FH program the French students in grade 1 did not properly use this form 18 percent of the time, grade 2 students 12 percent, and grade 3 12 percent. In applying Dulay et al,'s (1982) criteria for a concept being learnt, the FH students are borderline.

Third person masculine subject pronouns: includes 'il' [he], 'ils' [they (m pl)]; example: 'Jean chante' [John sings] becomes 'Il chante' [He sings] when the pronoun is substituted for an individual's name. This form is not used correctly by FF students in grade 1 four percent of the time, grade 2 five percent and grade 3 one percent. The FH students made errors four percent of the time in grade 1, two percent in grade 2 and two percent in grade 3.

Masculine singular articles: includes 'un,' [an (m)] 'le' [the (m)]. Example: 'un magasin' [a store], 'le livre' [the book]. This form was executed in an incorrect form by the FF students in grade 1 eight percent, grade 2 students eight percent, and four

percent by the grade 3 students. The FH students in grade 1 committed errors involving this concept 11 percent, grade 2 10 percent, and grade 3 eight percent of the time.

Third person singular present indicative: includes 'il parle' [he speaks]. Students in the FF committed errors associated with this concept in grade 1 eight percent, grade 2 four percent, and grade 3 two percent of the time. Grade 1 committed errors 14 percent, grade 2 13 percent, and grade 3 seven percent respectively.

Plural articles: 'les' ['the'; plural of 'le', 'la'], 'des', ['of the', plural of 'un', 'une']. This error was committed by the grade 1 students in the FF program 11 percent, by the grade 2 one percent and by the grade 2 students one percent and by the grade 3 students six percent of the time. Grade 1 students in the FH program committed this error nine percent, grade 2 students six percent, and grade 3 students five percent respectively.

Masculine singular adjectives: the gender of the adjective must agree with the gender of the noun, eg., 'le petit garçon' [the little boy]. Since 'garçon' [boy] is masculine the adjective 'petit' [small] must also take the masculine form. In the FF program grade 1 students committed errors associated with this component 11 percent, grade 2 10 percent, and grade 3 12 percent respectively. In the FH program grade 1 students committed an error associated with this component 29 percent of the time, grade 2 students 18 percent, and grade 3 13 percent. We may say that this concept is almost learnt, by both FF grade 3 students and FH grade 3 students.

The infinitive: is used when placed after the conjugated verb, example 'il va jouer dehors cet aprés-midi' [he will play outdoors this afternoon]. In the FF program

an error associated with this concept was made by the grade 1 students 14 percent, by the grade 2 students 11 percent, and by the grade 3 students 13 percent of the time. No data is available on the FH program, since there was a lack of this component in the oral production by the grade 1 students. We may however, conclude that this concept is approaching the 10 percent mark, and may therefore be deemed almost learnt.

The above described components of French grammar are considered either mastered, or nearly mastered, when applying Dulay et al.'s criteria of the 10 percent mark. Thus these components will not be tested on the students, and will only be indirectly referred to in the ID & D to be discussed later.

Eleven components will be tested in the pre- and post-test, and one component will be elaborated upon in the ID & D to follow. All explanations of Hebrew grammatical rules are taken from Adiv (1980a). The following items are listed and discussed according to the percentages of errors found in Adiv's (1984c) study

Prepositions: include 'sur' [one], 'après' [after], 'avec' [with], 'à' [to], 'de' [of], and 'par' [by]. Grade 1 students in the FF program committed errors associated with this concept 34 percent, grade 2 students 25 percent, and grade 3 students 21 percent respectively. Grade 1 students in the FH program committed errors associated with this concept 34 percent, grade 2 students 28 percent, and grade 3 students 22 percent of the time.

According to the results of the pilot study done the previous June (1991) those items representing this grammatical category were eliminated from the present study because of the poor DI and the high P level. At this point it is difficult to ascertain

whether this grammatical concept had not been mastered by this group of students, or whether the test item itself was poorly constructed.

Feminine singular article: the gender of the article must agree with the gender of the noun with which it is coupled; example: 'la soeur' [the sister]. In the FF program, grade 1 students committed an error associated with this grammatical feature 46 percent, grade 2 students 47 percent, grade 3 students 29 percent of the time. In the FH program the grade 1 students committed errors associated with this grammatical feature 50 percent, grade 2 students 41 percent, and grade 3 students 41 percent respectively. Here it is plain that the frequency of errors associated with the feminine singular article was becoming rarer in the FF program, but was not shrinking in the FH program as quickly. In the following examples the masculine form is denoted by 'm', the feminine form by 'f', and the plural form by 'pl'.

In the following discussion two examples of each grammatical category will be given: one employed in the pre-test, the other employed in the post-test. An asterix denotes the correct choice.

Reduced form 'de': is employed in French in a sentence denoting lack of, 'il n'a pas de livre' [he does not have a book], as well as denoting collective amounts, 'il a beaucoup de livres' [he has many books]. Grade 1 students in the FF program committed this error 35 percent, grade 2 35 percent, and grade 3 30 percent of the time. In the FH program grade 1 students committed errors associated with this grammatical component 42 percent, grade 2 students 35 percent, and grade 3 students 49 percent respectively. It is possible that the increase in this error from grade 2 to grade 3 is due

to an increased usage in oral conversation, thereby producing more errors of this type (Adiv, 1984c). The plural is abbreviated as 'pl'; the masculine is denoted by 'm'.

1.	Il y a beaucoup _____ livres sur la table.		[There are many books on the table.]
	a.	des	[of the (pl)]
	b.	les	[the (pl)]
*	c.	de	[of]
	d.	le	[the]
1.	Il y a beaucoup _____ pupitres dans salle de classe.		[There are many desks _____ in the the classroom.]
	a.	des	[of the (pl)]
*	b.	de	[of]
	c.	les	[the (pl)]
	d.	le	[the (m)]
3.	J'ai perdu mon stylo.		[I have lost my pen.]
	Je n'ai pas _____ stylo.		[I do not have _____ pen.]
	a.	du	[of the]
*	b.	de	[of]
	c.	un	[a]
	d.	le	[the (m)

3.	Avigail a perdu son crayon.		[Avigail has lost her pencil.]
	Avigail n'a pas _____ crayon.		[Avigail does not have _____ pencil.]
	a.	le	[the]
*	b.	de	[of]
	c.	un	[a]
	d.	du	[of the]

The 'reduced form de' did cause some difficulty for the students in Adiv's study. The students in the present study had more difficulty with this grammatical concept than expected.

Item 1: The vast majority of both the experimental and control groups (91 percent) chose the incorrect alternative 'des', while only six percent chose the correct 'de'. According to the classroom teacher, Mrs. Shirley Azoulay, the cause of this error was that when the students see a noun in plural they automatically think the article must also be in plural.

Item 3: The majority of the students (53 percent) chose the incorrect form 'un' while only 19 percent chose the correct form 'de', although some students chose the phonetically similar 'du' (25 percent).

In both cases the students faced the difficulty in assimilating the French grammatical concept which demands the coupling of the noun with the negative denoted by 'de'. This is an example of LI from the L1.

Idiomatic expressions: include 'avoir [to have] plus a need' and 'avoir [to have] plus age'; example: 'Jeanne a peur' ['Jean is afraid', but literally, 'Jean has afraid'],

'Maurice a huit ans' ['Maurice is eight years old', but literally, 'Maurice has eight years']. Grade 1 students in the FF program erred 86 percent, grade 2 students erred 75 percent, grade 3 students 73 percent of the time. In the FH program grade 1 students erred 81 percent, grade 2 students 73 percent, and grade 3 students 62 percent respectively (Adiv, 1984c). Item 6 is an exemplar in that the proper form would be 'être [to be] plus feeling'. In the following examples a singular form is abbreviated by 's'.

2.	C'est l'hiver.		[It is wintertime.]
	Shoshana _____ froid.		[Shoshana __ cold.]
	a.	à	[to]
	b.	est	[is]
*	c.	a	[has]
	d.	et	[and]
2.	C'est l'été.		[It is summertime.]
	Miriam _____ chaud.		[Miriam _____ warm.]
	a.	et	[and]
*	b.	a	[has]
	c.	est	[is]
	d.	à	[to]

6.	Le garçon _____ fatigué.		[The boy _____ tired.]
	a.	a	[has]
	b.	à	[to]
	c.	ont	[have]
*	d.	est	[is]
6.	La fille _____ contente.		[The girl _____ happy.]
*	a.	est	[is]
	b.	ont	[have]
	c.	à	[to]
	d.	a	[has]
10.	Gabriella voit une souris.		[Gabriella sees a mouse.]
	Garbiella _____ peur.		[Gabriella _____ scared.]
	a.	est	[is]
	b.	à	[to]
*	c.	a	[has]
	d.	ont	[have]
10.	Karen _____ froid.		[Karen _____ cold.]
	a.	est	[is]
*	b.	a	[has]
	c.	à	[to]
	d.	ont	[have]

13.	Jennifer _____ huit ans.		[Jennifer _____ eignt years.]
	a.	à	[to]
	b.	est	[is]
	c.	sont	[are]
*	d.	a	[has]
13.	M. Cohen est un grand-père.		[Mr. Cohen is a grand-father.]
	Il _____ soixante ans.		[He ____ sixty years old.]
*	a.	a	[has]
	b.	à	[to]
	c.	est	[is]
	d.	ont	[have]

The idiomatic expression 'avoir [to have] - plus age' and 'avoir [to have] - plus a need' caused difficulty with the students in Adiv's study, as it did with the students in the present study. In English one would say 'I am eight years old,' or 'I am afraid'. The French translation of 'to be' is 'être,' thereby causing the error, 'je sui huit ans' and 'je suis chaud'. The only item that did not cause difficulty to the majority of the students was item 6, which used the verb 'être [to be] - with a feeling'. The students generalized this form to the 'need', which in French is coupled with the verb 'avoir'.

Item 2: The vast majority of the students chose the incorrect form 'est' (75 percent), while only 3 percent chose the correct form 'a' or the phonetic equivalent 'à' (nine percent).

Item 6: The vast majority of the students chose the form 'est' (84 percent),

correctly transferring the English grammatical rule to the French; only 12 percent chose the incorrect form 'a', pointing to overgeneralization.

Item 10: The majority of the students chose the incorrect form 'est' (66 percent) to be coupled with 'fear', while only a small minority chose the correct form 'a' (13 percent) or the phonetic equivalent 'à' (19 percent).

Item 13: The majority of the students chose the incorrect form 'est' (69 percent) while only 19 percent chose the correct 'a' or the phonetically similar 'à' (three percent).

Feminine singular adjectives: the gender of the adjectives must agree with the gender of the noun it is describing; example: 'la grande table' [the big table]. Grade 1 students in the FF program erred in this grammatical feature 57 percent, grade 2 students 63 percent, and grade 3 students 49 percent of the time. Grade 1 students in the FH program erred 48 percent, grade 2 students 45 percent, and grade 3 49 percent respectively. Here we can see that the FF students erred more often than the FH program starting in grade 1, but the two groups are equal by grade 3. One may wonder why this has occurred: perhaps the oral production is higher in the FF program, thus eliciting more errors; or the FH students are exhibiting a carry-over effect from Hebrew. In either case this grammatical concept has not been mastered by either the FF or the FH groups (Adiv, 1984c). In the following examples feminine forms are denoted by 'f', masculine forms by 'm', singular forms by 's', and plural forms by 'pl'.

4.	La _____ fille est dans la classe.		[The _____ girl is in the class.]
	a.	petit	[small (m s)]
	b.	petits	[small (m pl)]
*	c.	petite	[small (f s)]
	d.	petites	[small (f pl)]
4.	La _____ fille travaille sur son devoir.		[The _____ girl works on her homework.]
	a.	grandes	[big (f pl)]
	b.	grand	[big (m s)]
*	c.	grande	[big (f s)]
	d.	grands	[big (m pl)]
7.	Tu vis dans une _____ maison.		[You live in a _____ house.]
*	a.	belle	[beautiful (f s)]
	b.	beaux	[beautiful (m pl)]
	c.	belles	[beautiful (f pl)]
	d.	beau	[beautiful (m s)]
7.	Elle joue avec une _____ poupée.		[She plays with a _____ doll.]
*	a.	jolie	[pretty (f s)]
	b.	jolies	[pretty (f pl)]
	c.	joli	[pretty (m s)]
	d.	jolis	[pretty (m pl)]

Feminine plural adjective items which were not included in Adiv's study were added in the present study.

9.	Karen veut acheter deux _____.		[Karen wants to buy two _____.]
	a.	voiture grande	[car big (f s)]
*	b.	grandes voitures	[big cars (f pl)]
	c.	voitures grandes	[cars big (f pl)]
	d.	grande voiture	[big car (f s)]
9.	Carole veut vendre deux _____.		[Carole wants to buy two _____.]
	a.	maison grande	[a house big (f s)]
	b.	grande maison	[a big house (f s)]
	c.	maisons grandes	[houses big (m pl)]
*	d.	grandes maisons	[big houses (f pl)]

The feminine singular adjective was expected to cause difficulty in the multiple choice test, since it had in Adiv's (1984c) study. However more than half of the students were able to choose the alternative offered (the adjective) to agree with the noun according to both gender (feminine) and number (singular).

Item 4: The majority of the students chose the correct alternative 'petite' (59 percent) while 34 percent chose the masculine singular form 'petit'.

Item 7: The majority chose the correct alternative 'belle' (59 percent) while only 16 percent chose the incorrect form, the masculine singular 'beau'.

Item 9: Half of the students chose the plural form 'grandes voitures' in the correct word order (50 percent) while 22 percent chose the form in the incorrect word

order (word order in French fluctuates more than in English).

Passé composé: errors associated with this grammatical element included omission of the conjugated 'avoir' [to have] and 'être' [to be] in the past tense, as well as confusion as to which verb demanded which auxiliary in this tense. Also there is difficulty with the form the past participle takes in this tense; example: 'il a sorti' [he went out], which is different from the present indicative of 'il sort' [he leaves (past)]. In the FF program the grade 1 students erred in 51 percent, grade 2 55 percent, and grade 3 52 percent of the time. In the FH program grade 1 students erred 63 percent, grade 2 59 percent, and grade 3 58 percent respectively (Adiv, 1984c). Here we can see that the passé composé is creating as much difficulty in oral production among the FH students as among the FF students.

5.	Hier, Paul _____ tombé.		[Yesterday Paul _____ fell.]
	a.	a	[conjugated 'avoir']
*	b.	est	[conjugated 'etre']
	c.	et	[and]
	d.	à	[to]
5.	Hier, Wendy _____ arrivée à l'école en retard.		[Yesterday Wendy _____ arrived late for school.]
	a.	a	[conjugated 'avoir']
	b.	et	[and]
	c.	à	[to]
*	d.	est	[conjugated 'etre']

The past indicative tense (passé compose) caused difficulty to the students in Adiv's study as it did to the students in the present study. Most verbs are conjugated in the past indicative tense with the verb avoir, however certain verbs require the auxiliary verb etre.

Item 5: A minority of the students chose the correct alternative 'est' [a conjugation of the verb être] (25 percent) and another small minority (16 percent) chose the phonetic equivalent 'et'. The remaining students chose either the incorrect form 'a' [conjugation of the verb avoir] (22 percent) or the phonetic equivalent 'à' (38 percent).

It is apparent that the students of the study are not as well versed in the spelling of these forms as they are in their pronunciation.

Third person feminine subject pronoun: the gender of the pronoun must match the gender of the noun it is replacing; example: 'Lise vient' [Lisa is coming] becomes 'Elle vient' [she is coming]. In the FF program the grade 1 students erred 58 percent, grade 2 41 percent, and grade 3 13 percent of the time. In the FH program the grade 1 students erred 46 percent, the grade 2 43 percent, and the grade 3 35 percent respectively. Evidently the rate of errors dropped dramatically in the FF program from grade 2 to grade 3 (Adiv, 1984c). While the drop is not as dramatic in the FH program, there is till an improvement from grade 2 to grade 3.

8.		Caroline joue dans la classe.	[Caroline plays in the classroom.]
		_____ joue dans la classe.	[_____ plays in the classroom.]
	a.	Il	[He]
*	b.	Elle	[She]
	c.	Tu	[You]
	d.	Vous	[You (pl)]
8.		Jeanette ouvre la porte pour la classe.	[Jeanette opens the door for the class.]
		_____ est gentille.	[_____ is nice.]
	a.	Il	[He]
*	b.	Elle	[She]
	c.	Tu	[You]
	d.	Vous	[You (pl)]

11.		Tammy voit une jupe dans le magasin.	[Tammy sees a skirt in the store.]
		_____ veut l'acheter.	[_____ wants to buy it.]
	a.	Il	[He]
*	b.	Elle	[She]
	c.	Je	[I]
	d.	Ils	[They]

11.	Victoria va au cinèma avec un amie parce qu' _____ ne veut pas être seule.		[Victoria goes to the theatre with a friend because she does not want to be alone.]
*	a.	elle	[she]
	b.	il	[he]
	c.	ils	[they (m pl)]
	d.	je	[I]

Feminine plural pronouns, which were not included in Adiv's study were included in the present study.

12.	Cari et Amanda sont dans la classe.		[Cari and Amanda are in the classroom.]
	_____ sont dans la classe.		[_____ are in the classroom.]
	a.	Elle	[She]
	b.	Ils	[They (m)]
*	c.	Elles	[They (f)]
	d.	Il	[He]
12.	Annette et Carole sont dans la maison.		[Annette and Carole are in the house.]
	_____ sont dans la maison.		[_____ are in the house.]

*	a.	Elles	[They (f)]
	b.	Elle	[She]
	c.	Il	[He]
	d.	Ils	[They (m)]

The third person feminine subject pronoun caused difficulty in the earlier grades of FF students, as well as all three grades of the FH students illustrated in Adiv's study, but most of the students in the present study did answer these items correctly.

Item 8: The majority (81 percent) of the students correctly chose the feminine alternative 'elle' with the almost total exclusion of the masculine form 'il' (nine percent).

Item 11: The majority of the students (75 percent) correctly chose the feminine alternative 'elle', while only 19 percent chose the incorrect masculine form 'il'.

Item 12: The students with few exceptions chose the correct alternative 'elles' (84 percent) while only nine percent chose the masculine plural forms 'ils.'

Third person plural present indicative: the form of certain verbs, i.e., the verbs ending in 'ir' like the verb 'finir' [to finish] are pronounced and written with a different ending when conjugated in the plural; example, 'elle finit' becomes 'elles finissent'. In the FF program the grade 1 students erred 70 percent of the time, the grade 2 students 55 percent, and the grade 3 students 47 percent. In the FH program the grade 1 students erred 71 percent, the grade two students 67 percent, and the grade 3 students 56 percent respectively (Adiv, 1984c). Both the FF program and the FH program are showing improvement in comparing the results of the grade 1 students to the results of the grade 3 students. In the following items the singular form is abbreviated as 's', plural forms

are abbreviated as 'pl', and person is abbreviated as 'p'.

14.	Sarah et Tamar _____ dans la bibliothèque.		[Sarah and Tamar _____ in the library.]
	a.	travaille	[work (1st person s)]
	b.	travailles	[work (2nd person s)]
*	c.	travaillent	[work (3d p pl)]
	d.	travaillez	[work (2nd p pl)]
14.	Julie et Sarah_____ la télévision.		[Julie and Sarah _____ television.]
	a.	regarde	[watch (1st person s)]
	b.	regardes	[watch (2nd p s)]
*	c.	regardent	[watches (3rd p pl)]
	d.	regardez	[watch (2nd p pl)]
15.	Michael et Joseph _____ à l'école.		[Michael and Joseph _____ to school.]
	a.	marches	[go (2nd p s)]
	b.	marche	[go (1st p s)]
	c.	marchez	[go (2nd p pl)]
*	d.	marchent	[go (2nd p pl)]
15.	Adam et André _____ à la maison pour prendre une balle.		[Adam and Andre _____ the house to get a ball.]

	a.	rentre	[return/s (1st and 3rd p s)]
	b.	rentrez	[return (2nd p pl)]
*	c.	rentrent	[return (3rd p pl)]
	d.	rentrons	[return (1st p pl)]

The third person plural present indicative caused difficulty to the subjects in Adiv's study. In the present study slightly more than half of the students experienced difficulty with differentiating between present and plural forms and between first and second plural and third person plural forms. This grammatical concept had been introduced to both the experimental and control groups but the unit had not yet been completed.

Item 14: the students seemed to have some difficulty with the conjugation of the plural forms. Almost half (47 percent) chose the incorrect 'travailles' while 34 percent chose the correct 'travaillent'.

Item 15: Almost half (41 percent) of the students chose the correct form 'marchent' while 28 percent chose the incorrect 'marches' as well as the incorrect 'marchez' (22 percent).

These errors are probably due to the fact that the students were not familiar with the present indicative plural conjugations.

Reflexive pronouns: are used in French to make the verb application to the individual; example: 'il se couche' [he lies down]. In the FF program grade 1 students erred 91 percent of the time, grade 2 students erred 69 percent, and grade 3 students erred 86 percent. In the FH program grade 1 students erred 88 percent, grade 2 students

88 percent, and grade 3 students 78 percent respectively. Perhaps the increased frequency of errors in the grade 3 FF program is a result of more spontaneous oral production, as compared to grade 2 which possible had a greater usage of 'clump phrases' only containing the reflexive pronoun element (Adiv, 1984c).

16.	Jonathan entre dans la classe et _____.		[Jonathan enters the class and _____.]
	a.	assieds	[incorrect form]
*	b.	s'assied	[sits 3rd p s)]
	c.	assied	[incorrect form]
	d.	s'assieds	[sits (2nd p s)]
16.	Le professeur dit à Jean, "_____".		[The teacher says to John, "_____".]
*	a.	assieds-toi	[sit down (2nd p s)]
	b.	assieds	[incorrect form]
	c.	asseyez	[incorrect form]
	d.	asseyons	[incorrect form]

Reflexive pronouns caused major difficulty to the subjects in Adiv's study, as it did to the students in the present study. This grammatical concept had not been taught as a separate grammatical unit, although the subjects had been indirectly exposed to this form. Most of the students had difficulty in correctly choosing the reflexive choice, although the verbs used are only conjugated in the reflexive form.

Item 16: The students had not been taught the reflexive in a formal way, and this

is shown in the alternatives chosen. The majority of the students chose the incorrect form 'assied' (66 percent) while only 13 percent chose the correct form 's'assied'.

Contracted forms of the article: the articles 'à [to] and 'le' [the] combine to form 'au' [to the]; 'de' [of] and 'le' [the] combine to form 'au' [to the]. In the FF program grade 1 students erred 93 percent of the time, grade 2 students erred 93 percent, and grade 3 students erred 80 percent. In the FH program the grade 1 students erred 97 percent, the grade 2 students erred 91 percent, and the grade 3 students erred 80 percent respectively (Adiv, 1984c).

17.	En hiver, nous aimons faire _____ ski.		[In winter-time we like to _____ ski.]
	a.	le	[the]
	b.	de le	[of the (incorrect form)]
	c.	de	[of]
*	d.	du	[of the]
17.	Il nous reste _____ travail à faire.		[There is _____ work for us to do.]
	a.	de	[of]
*	b.	du	[of the]
	c.	des	[of the (pl)]
	d.	de la	[of the (f)]

18.	Cet après midi, Michelle va _____ cinéma.		[This afternoon Michelle is going _____ cinema.]
	a.	à	[to]
	b.	à le	[to the (incorrect form)]
*	c.	au	[to the]
	d.	le	[the]
18.	La voiture de Jean est _____ garage.		[John's car is _____ garage.]
*	a.	au	[at the]
	b.	à	[to]
	c.	a	[has]
	d.	à le	[incorrect form]

The contracted form of the article caused major difficulty to the students in Adiv's study, but minor difficulty to the students in the present study.

Item 17: Almost half of the students (44 percent) chose the correct alternative 'du' while 28 percent of the remaining students chose the phonetically similar 'de'. Only 13 percent chose the incorrect form 'de le'.

Item 18: Most of the students chose the correct alternative 'au' (59 percent) while only 25 percent chose the incorrect 'à le'.

Object Pronouns: includes direct ('le', 'la', illustrated in items 19) and indirect object pronouns ('lui', 'leur', illustrated in items 20), example: 'Il parle à Marie' [He speaks to Marie] becomes 'Il lui parle' ['he speaks to her', literally 'he to her speaks'].

In the FF program grade 1 students erred 94 percent, grade 2 students erred 83 percent, and grade 3 students erred 35 percent of the time. In the FH program grade 1 students erred 84 percent, grade 2 students erred 92 percent, and grade 3 students erred 59 percent respectively (Adiv, 1984c). There seemed to have a greater drop among the FF students than among the FH students, but both groups exhibited a reduction of errors in this grammatical category.

19.	Je vais faire mon travail.		[I will do my work.]
	Je vais _____ faire.		[I will do _____.]
	a.	lui	[him (indirect pronoun)]
	b.	la	[it (f)]
	c.	les	[them (m pl)]
*	d.	le	[it (m s)]]
19.	Je vais voir le film.		[I will see the film.]
	Je vais _____ voir.		[I will see _____.]
*	a.	le	[it (m)]
	b.	lui	[him (indirect pronoun)]
	c.	ce	[it (demonstrative)]
	d.	la	[it (f)]

20.	Tu veux parler à Seth?		[You want to speak with Seth?]
	Tu veux _____ parler?		[You want to speak _____.]
	a.	de	[of]
	b.	la	[it (direct object f)]
	c.	le	[it (direct object m)]
*	d.	lui	[to him]
20.	Je passerai le journal à Marie.		[I will give the newspaper to Marie.]
	Je _____ passerai le journal.		[I will give the newspaper _____.]
	a.	la	[it (direct object f)]
	b.	de	[of]
	c.	le	[it (direct object m)]
*	d.	lui	[to her]

Object pronouns caused more difficulty in Adiv's study than in the present study. While this grammatical concept had not been taught to the students in a formal way, more than half responded correctly to these items.

Item 19: More than half of the students correctly chose the form 'le' (56 percent).

Item 20: Half of the students (50 percent) correctly chose the form 'lui'.

Instructional Goal

The ID & D to follow is pictured as one unit in a series of eighteen units, each specifically designed to cover eighteen major LI errors (as delineated by Adiv, 1984c). The students are in grade 3.

The Goal is: The student will correctly use the conjugated forms of 'avoir' [to have] and 'etre' [to be] in multiple-choice and fill-in-the-blank exercises.

Instructional Analysis of a Goal

The goals of our ID & D encompass two learning domains: verbal information and intellectual skills. Verbal skills involves stating facts, providing specific answers, giving only one answer for each question (Dick & Carey, 1985). Intellectual skills are divided into four types: discriminations, concepts, rules, and problem solving. Discriminations occurs when the learner can distinguish whether two things are similar or dissimilar. Concept attainment occurs when the learner categorizes objects according to labels and characteristics. Rules occurs when the learner applies a rule. Problem solving occurs when the learner selects and applies a variety of rules in order to solve problems (Dick & Carey, 1985; Gagné, Briggs, Wager, 1988). The instructional analysis of this goal will focus primarily on the application of rules, accompanied by verbal information.

Instructional Analysis of the Objectives

The eight objectives (illustrated in Figure 1, below) are to be given over a period

of five lessons. Skills 1 through 3 are to be given in the first lesson; skills 4 through 6 are to be given in the second lesson; skill 7, the mastery test, is to be given in the third lesson; skill eight, remediation, is to be given in the fourth lesson, if necessary; the retaking of the test, skill 7, is to be given in the fifth lesson.

Objective 1: The first objective is for the student to identify conjugations of the verb avoir in the story "Je te présente mon ami Tamar".

Entry behaviour 1.1: In order that the student be able to participate in the class activities it is important that the student be familiar with the vocabulary used in the story. The present ID & D was designed using vocabulary with which the students would be very familiar. However, if this were not the case the teacher would have to review any new vocabulary with the students before continuing.

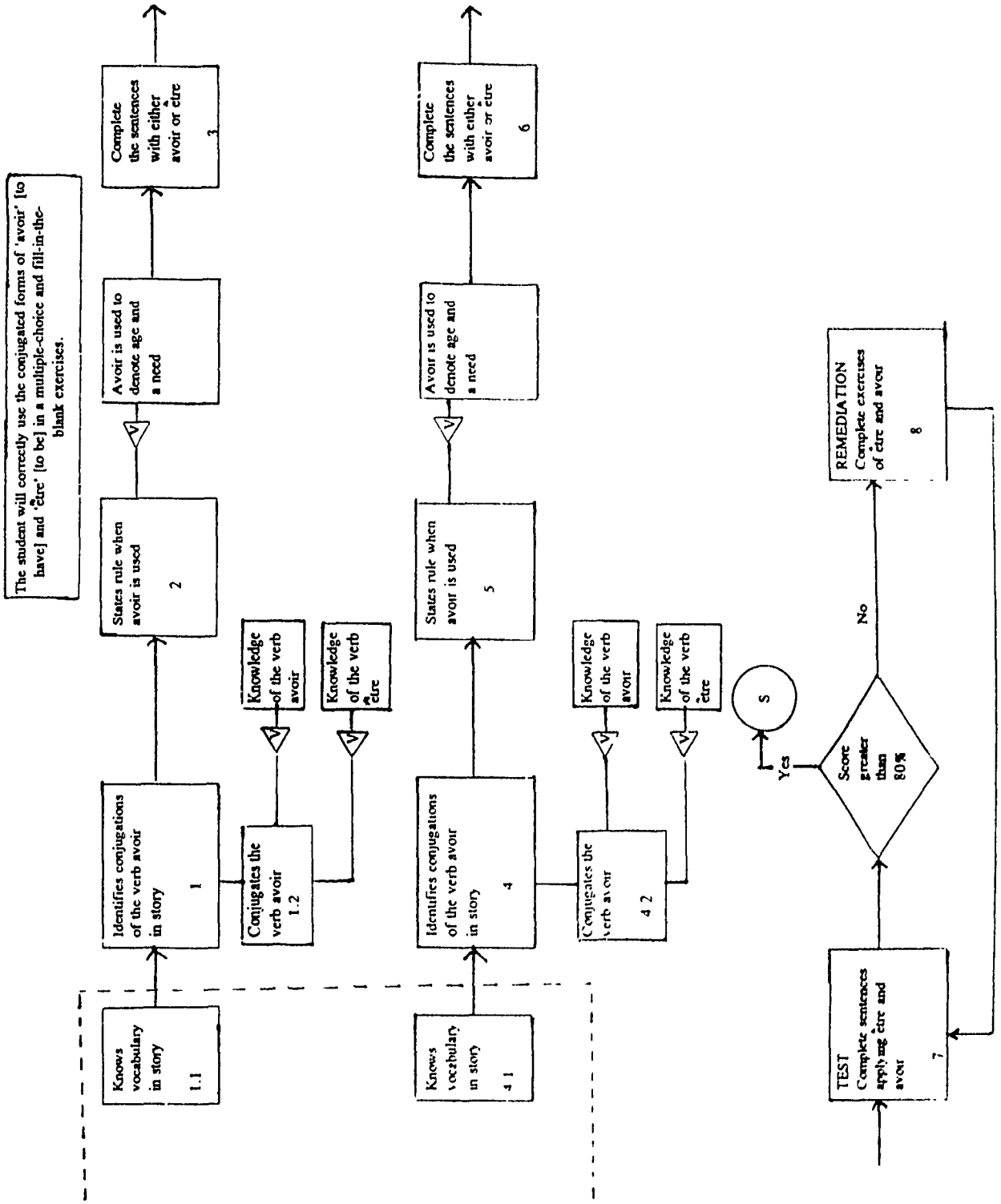
Subordinate skill 1.2: the student must be able to conjugate the verb avoir [to have]. This exercise may be accomplished through a quick oral review at the start of lesson 1. In order to ensure that the students are knowledgeable of the verbs avoir and etre (verbal information required for the fulfillment of the subordinate skill 1.2) the teacher may choose to use the blackboard and by asking students to fill in the different conjugations according to the personal pronouns considered.

Objective 2: the students state under what conditions the verb avoir is used. The answer is to denote age as well as to denote a need. If the students have difficulty answering these questions the teacher may choose to remind the students of the correct answer.

Objective 3: Now that the students have undergone a review in both the conjugations of the verb avoir as well as its usages the students are now ready to complete the written

Figure 1

French: Instructional Analysis of the Objectives



fill-in-the-blank exercise with either avoir or être. The objective of this exercise is to reinforce the usages of the verb avoir. Up to this point the verb avoir was referred to with almost the total exclusion of the verb être. The purpose of this tactic was to avoid confusion on the part of the students between the usages of the verbs avoir and être. The verb être will be reviewed on a deeper level in a later objective.

Objective 4: is to be introduced in lesson 2. In this objective the student is to identify conjugations of the verb avoir in the story "Une journée avec Aviva".

Entry behaviour 4.1: It is imperative that the students are familiar with the vocabulary in the story for them to properly interact with the ID & D. If the students are unfamiliar with any of the vocabulary in the story it is important that the teacher review those words with them.

Subordinate Skill 4.2: Only a brief review of the conjugations of the verbs avoir and être are needed (verbal information). The verb être may now be reviewed on the blackboard with student participation.

Objective 5: The students are to state the rule when avoir is used. The teacher may quickly review with the students the verbal information that avoir is used to denote age and a need.

Objective 6: The students complete a fill-in-the-blank exercise using either avoir or etre.

Objective 7: The students complete the fill-in-the-blank exercises, correctly apply the conjugated verbs avoir and être.

Objective 8: The students who do not attain an 80 percent accuracy rate are to be taken out of the classroom to work with a teaching-assistant for remediation. The remediation

encompasses an oral review of the usages of the verbs avoir and être, followed by an exercise matching the verbs avoir and être to feelings and needs. The exercise is to be corrected together with the teaching-assistant. A second mastery test is to be administered to each student, but only those items answered incorrectly on the original test are to be answered by the students. The teaching-assistant corrects each test as it is turned in by the students. If an eighty percent accuracy rate is not achieved the teaching-assistant orally reviews the error with the student and than the student changes the answer on the test paper.

Performance Objectives

The instructional objectives (refer to Figure 1) 1 through 2 are oral in nature, and therefore do not demand a written test item; objectives 3 is a written exercises; objectives 4 and 5 are oral; objectives 6 and 7 are written exercises; and objective 8 is oral as well as written.

Lesson 1

1. Given a story containing 'ai' and 'a' [conjugated elements of the verb avoir] the students read the story, circle those elements in the story, identify their meaning, and read those sentences containing these elements, and identify when they are used: to express age or a need.
2. Given a copy of the same story, but with the 'ai' and 'a' element left blank, the students choose the correct element to complete the

blank.

Lesson 2

1. Given a story containing the conjugated elements 'avoir' [to have] and 'être' [to be] the students read the story and circle any conjugated form of the verbs 'avoir' and 'être' in the story.
2. Given a copy of the same story, but with blanks present instead of the 'avoir' and 'être', the students complete the sentences, choosing either 'avoir' or 'être'.

Lesson 3: Mastery Test

1. Given a stencil of sentences taken from the ID & D, containing blanks the students choose the correct verb, either 'avoir' or 'être', to an eighty percent accuracy level.

Lesson 4: Remediation

1. Those students who had not attained an eighty percent accuracy level, complete a remediation stencil on the usages of the verbs 'avoir' and 'être' to an eighty percent accuracy level.
2. These students retake the test.

While it may prove to be both useful and elucidating to create test items to correspond to each performance objective there are two reasons why this would not be feasible. The first being that grade 3 students in a L2 classroom do not necessarily know names of grammatical elements, ie., pronouns, and it would not fit into the curriculum to teach it at this time; it is more important to teach the student the concept than the

name of the concept. The second reason is that the review of the elements listed in the performance objectives can also be reviewed through means other than written test items, i.e., through verbal means.

Instructional Strategies

Pre-test (20 minutes) to be administered in week 1.

It is important that the teacher convey to the grade 3 students the importance of this test, in that the students should try their best. However, in order to relieve the anxiety a 'surprise test' would elicit, it is imperative that the teacher explain to the students that the test will not count for end of the year marks.

Objectives:

The students try their best in answering the multiple-choice questions of 'Test 1', i.e., the pre-test, by themselves.

Teacher's Activities:

The teacher distributes the tests to all students. When the students have finished the test the teacher collects the teacher collects them.

Refer to Appendix A for the pre-test.

Lesson 1: (20 minutes)

A. Oral Exercise:

1) The teacher reads the story "Je te présente mon ami Tamar" [May I Introduce You to My Friend Tamar] (with or without student participation).

2) The teacher reviews the verbs 'avoir' and 'être'.

3) The teacher tells the students to circle in the story 'ai' and 'a'.

4) The teacher ask students to read those sentences which have 'ai' or 'a' in them.

5) The teacher asks the students when 'ai' and 'a' are used, and the answers are written on the board: to express age, or a need.

B. The teacher distributes the fill-in-the-blank sheets of the story "Je te présente mon ami Tamar".

1) The students circle the correct answer for each blank.

2) The students check their answers; corrections are written on the side of the stencil.

3) The teacher asks the students to give examples, orally, of the usage of the verb 'être'.

Refer to Appendix A to review the exercise sheets.

Lesson 2 (15 minutes)

A. The teacher distributes the story of "Une journée avec Aviva" [A Day With Aviva].

1) The teacher reads the story.

2) The teacher tells the students to circle the verb 'avoir' and underline the verb 'être'.

B. The teacher distributes the story "Une journée avec Aviva" containing blanks.

1) The students fill in the blanks from the choices offered.

2) The teacher corrects the stencils on the board.

3) The students will correct the stencils without changing their original answer.

Refer to Appendix A in order to review the exercise sheets.

Lesson 3: Test (20 minutes)

A. The teacher distributes the mastery test to all students.

Refer to Appendix A for the mastery test.

Lesson 4: Remediation (15 minutes)

A. Those students who did not attain eighty percent on the test are taken out of the class for remediation on:

a) the usage of the verb avoir.

b) the usage of the verb être.

Refer to Appendix A for the Remediation sheets.

B. These students retake the test, but only answer those items that they answered incorrectly.

C. During this time those students who attained accuracy the first time taking the test will be completing homework assignments, writing a composition, or reading a French book with the home-room teacher.

Post-test (20 minutes).

Objectives:

The students try their best in answering the multiple-choice questions of

'Test 2' by themselves.

Teacher's Activities:

The teacher distributes the tests to all students.

When the students have finished the test the teacher collects them.

Refer to Appendix A for the post-test.

Evaluation of the Hebrew Instructional Design and Development

Adiv (1984c) ranked the LI errors committed in Hebrew into nineteen grammatical classes in the FH program. As mentioned above according to Dulay et al. (1982) a component is considered learned when a ten percent error level is reached. Six of the nineteen components in Adiv's study are considered learned. It is imperative to correct these errors before they become fossilized.

The ID & D will focus on four of the thirteen test items of the pre- and post-test: 4, 7, 9 and 12.

Although the full form of the article, third person masculine singular past, third person masculine singular present, impersonal 'yes' and ''eyn', as well as the stem form present are considered learned, according to the criterion of Dulay and Burt mentioned above, some of these grammatical components will be included as items in the pre- and post-tests. The reasons being that according to the pilot project some of these items were not considered learned. Grade 1 was not included in Adiv's analysis since the students' oral production were not adequate in terms of quantity to complete the analyses. As well

object pronouns, third person plural, past tense verbs and infinitives were also excluded because of the low production of these grammatical categories even in grade 2. Other grammatical concepts illustrated by Adiv but not reflected in the present study have been included in order to give greater depth to the problem of LI.

The author has taken the forms delineated by Adiv and composed test items for each. The target areas are represented by four items. Following is a detailed explanation of each of these grammatical forms unearthed by Adiv in her oral production study, followed by items composed for the written true and false test for this study. All explanations of Hebrew grammatical rules are taken from Adiv (1980a). The following items are listed and discussed according to the percentages of errors found in Adiv's (1984c) study. Following the description of each grammatical category are the pre- and post-test items, including the English translation. An elucidation of the pre-test choices made by the students of both the experimental and control groups are given (statistical analyses revealed no significant differences between the two groups), followed by a comparison with Adiv's (1984c) results. The transliteration from Hebrew into English follows the Encyclopedia Judaica.

Following are the grammatical concepts considered either learned or border-line learned.

Full form of the article: encompasses the definite article in front of the noun and in front of the sub-classes of the noun phrase where the use of the article is required, eg., 'be-veyt ha-sefer' [in the school]. In grade 2, two percent of the errors were present in this category, but the percentage was raised to seven percent in grade 3.

Third Person masculine singular past: Hebrew verbs are inflected for person, gender, and number. Both grade 2 and grade 3 students averaged four percent of the errors in this category.

Third person masculine singular present: Hebrew verbs are inflected for only gender and number. Both grades 2 and 3 students averages six percent of the errors in this category.

Impersonal yeš and 'eyn: are similar to the French 'il y a' and its negative 'il n'y a pas'. The percentage of errors in this category dropped from 11 percent in grade 2 to five percent in grade 3.

Stem form present: The Hebrew three-letter root is conjugated according to the tense as well as certain grammatical exception, such as the presence of certain letters: (', ', h, ḥ, etc.) which causes a change in the conjugation of that root. The percentage of this error dropped from 13 percent in grade 2 to 10 percent in grade 3.

Contracted form of the article: When the noun phrase contains the prepositions 'be' [in], 'le' [to], or 'ke' [as] the definite article 'ha' combines to form: 'ba' [in the], 'la' [to the]. 'ka' [as the]. The percentage of this error rose from nine percent in grade 2 to 17 percent in grade 3.

General preposition: functions grammatically as well as lexical units. In a grammatical mode they serve as case markers eg., 'ha-yeled hištameš be-milon' [the boy used a dictionary]. The percentage of errors in this category rose from nine percent in grade 2 to 17 percent in grade 3.

Masculine singular adjective: The percentage of errors rose slightly from 12

percent in grade 2 to 15 percent in grade 3.

Stem form past: The Hebrew three-letter root is conjugated according to the tense as well as certain considerations such as the presence of certain letters: (', ', h, ḥ, etc) which causes a change in the conjugated of that root. The percentage of errors rose slightly from 13 percent in grade 2 to 15 percent in grade 3.

Third person masculine singular pronoun: Independent pronouns are in the nominative case ('any, 'atah, hu'). The percentage of errors dropped slightly from 15 percent in grade 2 to 13 percent in grade 3.

Third person plural pronoun: Independent pronouns are in the nominative case ('anahnu, 'atem, 'aten, hem, hen). The percentage dropped from 33 percent in grade 2 to 15 percent in grade 3.

The only grammatical concept not considered learned by Adiv's stu/ y and not included in the present study was the feminine singular adjective.

Feminine singular adjective: The percent of errors dropped from 89 percent in grade 2 to 73 percent in grade 3.

The adjective must agree with the noun in both number and gender.

Following are the grammatical concepts illustrated in the present study.

Third person feminine singular pronoun: Independent pronouns are in the nominative case ('any, 'atah, 'at, hu'). The percentage of errors dropped from 50 percent in grade 2 to 30 percent in grade 3 (Adiv, 1984c).

1.	ruti roṣah sukaryah.		[Ruthie wants candy.]
	_____ roṣah sukaryah.		[_____ wants candy.]
	a.	hu'	[he]
*	b.	hi'	[she]
	c.	'atem	[you (m pl)]
	d.	hen	[they (f pl)]
1.	rynah roṣah 'ugyah.		[Rena wants a cupcake.]
	_____ roṣah 'ugyah.		[_____ wants a cupcake.]
	a.	'atem	[you (m pl)]
	b.	hen	[they (f)]
*	c.	hi'	[she]
	d.	hu'	[he]

Third person feminine plural pronoun: Although this category is not included in Adiv's study, the researcher included it in the present study.

10.	rynah veronit kor'ot sefer basifryah.		
	[Rena and Ronit are reading a book in the library.]		
	_____ kor'ot sefer basifryah.		[_____ are reading a book in the library.]
	a.	hu'	[he]
	b.	'atem	[you (m pl)
	c.	hem	[they (m)]
*	d.	hen	[they (f)]

10.	simḥah veṣiporah yošvot bakitah.		[Simcha and Tziporah are sitting in the classroom.]
	_____ yošvot bakitah.		[_____ are sitting in the classroom.]
	a.	hem	[they (m)]
*	b.	hen	[they (f)]
	c.	hu'	[he]
	d.	'atem	[you (m pl)]

The third person feminine singular pronoun (item 1) caused some difficulty to the students in Adiv's (1984c) study, however the students in the present study experienced no difficulty with this grammatical concept whatsoever.

Item 1: Virtually 100 percent of the students correctly chose the feminine pronoun to replace the feminine proper noun.

Third person feminine plural pronoun (item 10) caused some difficulty to the students in the present study.

Item 10: Almost half (47 percent) of the students correctly chose the feminine plural pronoun, but 34 percent chose the masculine plural pronoun.

This indicates that the students are not yet very familiar with the plural pronouns.

Third person feminine singular present: The verb must be in agreement with the pronoun it describes, as well as be conjugated in the present tense. The percentage of errors rose slightly from 59 percent in grade 2 to 62 percent in grade 3 (Adiv, 1984c).

2.	ḥayah yoševet bamis'adah.		[Haya is sitting in the restaurant.]
	ḥayah _____ 'ugah bamis'adah.		[Haya _____ a cake in the restaurant.]
*	a.	'oḥelet	[is eating (f s)]
	b.	'oḥel	[is eating (m s)]
	c.	'oḥlot	[is eating (f pl)]
	d.	'oḥlim	[is eating (m pl)]
2.	batyah yoševet bakyta.		[Batia sits in the classroom.]
	batyah _____ bakyta.		[Batia _____ in the classroom.]
	a.	lomdym	[studies (m pl)]
*	b.	lomedet	[studies (f s)]
	c.	lomed	[studies (m s)]
	d.	lomdot	[studies (f pl)]
3.	'aḥšayv ṣevyah _____ 'et		[Now Tzivia _____ her
	šy'urey-habayit šelah.		homework.]
	a.	gomer	[is completing (m s)]
*	b.	gomeret	[is completing (f s)]
	c.	gomrot	[is completing (f pl)]
	d.	gomrim	[is completing (m pl)]

3.	'aḥšayv neḥamah _____ miḥtav.		[Now Nechamah _____ a letter.]
	a.	kotev	[is writing (m s)]
	b.	kotvym	[is writing (m pl)]
	c.	kotvot	[is writing (f pl)]
*	d.	kotevet	[is writing (f s)]

The third person feminine singular present caused some difficulty for the students in Adiv's study but little, if any, to the students in the present study.

Item 2: Virtually 100 percent of the students correctly coupled the feminine singular form of the verb with the feminine proper noun.

Item 3: Almost all of the students (94 percent) chose the feminine singular form to be coupled with the feminine proper noun.

Pronoun possessive: When a noun is used instead of the pronoun in the preposition 'le plus pronoun' the preposition 'le' precedes the noun as a dative case marker, eg., 'le-yosef yeš kadur' ['Joseph has a ball', literally, 'to Joseph there is a ball']. The percent of errors dropped slightly from 55 percent in grade 2 to 48 percent in grade 3 (Adiv, 1984c).

4.	kar baḥuṣ.		[It is cold outside.]
	a.	kar 'eliševa	[Elisheva cold-incorrect form]
*	b.	kar l'eliševa	[Elisheva is cold]
	c.	'eliševa kar	[Elisheva cold-incorrect form]
	d.	'eliševa lekar]	[Elisheva to cold -incorrect] form

4.	ḥam baḥuṣ.		[It is warm outside.]
	a.	myḥa'el ḥam	[Michael hot - incorrect form]
	b.	myḥa'el leḥam	[Michael hot -incorrect form]
*	c.	ḥam lemyḥa'el	[Michael is hot]
	d.	ḥam myḥa'el	[hot Michael - incorrect form]
7.	bakitah šemu'el noten ledavid sefer.		[In the class Shmuel gives a book to David.]
	'aḥšayv ____ sefer.		[Now _____ a book.]
	a.	david	[David]
	b.	david yeš	[to David - incorrect form]
	c.	yeš david	[there is David - incorrect form]
*	d.	yeš ledavid	[David has]
7.	baḥadar-oḥel 'ari'el noten lemiryam tapuz.		[In the cafeteria Ariel gives an orange to Miriam.]
	'aḥšayv _____ tapuz.		[Now _____ an orange.]
	a.	miryam yeš	[Miriam has incorrect form]
	b.	miryam	[Miriam]
*	c.	yeš lemiryam	[Miriam has]
	d.	yeš miriam	[Miriam has - incorrect form]

12.	tamar megy'ah lebeit hasefer bely sefarim.		[Tamar arrives at school without her books.]
	_____ sefarim.		[_____ her books.]
	a.	lo' letamar	[no to Tamar - incorrect form]
	b.	lo' letamar	[no Tamar -incorrect form]
*	c.	'ein letamar	[Tamar does not have]
	d.	'ein tamar	[not Tamar]
12.	tamar megy'ah labayit bely šy'urey-habayit.		[Tamar arrives at school without her homework.]
	_____ šy'urey-habayit.		[_____ homework
	a.	lo' letamar	[no to Tamar -incorrect form]
*	b.	'eyn letamar	[Tamar does not have]
	c.	lo' tamar	[no Tamar -incorrect form]
	d.	'eyn tamar	[not Tamar - incorrect form]

The pronoun possessive form had been taught to the students but because of the differences from the English expression of possession, it caused great difficulty to the students in Adiv's study, as it did to the students in the present study.

Item 4: Almost half of the students (47 percent) chose the incorrect form 'kar 'eliševa' [cold Elisheva - incorrect form] which is a direct translation from the English 'Elisheva cold' (word order is not as important in Hebrew as it is in English; 'is' is understood in Hebrew). Only 25 percent of the students correctly chose the form 'kar le'eliševa' ['Elisheva is cold', literally 'to Elisheva cold']. This is a clear example of

LI from the L1.

Item 7: More than half of the students 59 percent) chose the incorrect alternative 'david yes' [David there -incorrect form], while only 34 percent chose the correct form 'yes ledavid' ['David has', literally 'there is to David']. This is another clear example of LI from the L1.

Item 12: Three-quarters (75 percent) of the students correctly chose the form ''eyn letamar' ['Tamar does not have', literally 'none to Tamar']. The remaining students chose ''eyn tamar' ['none Tamar' - incorrect form] (16 percent) or 'lo' letamar' ['no Tamar' - incorrect form] (nine percent).

Apparently the students in the present study have more difficulty with the form 'yes le' ['so and so has', literally 'there is to so and so'] than the negative equivalent ''eyn le' ['so and so does not have', literally 'there is none to so and so']. Either the negative form ''eyn le' [does not have] has been learned, or else it has only been learned as an unanalyzed chunk, while the positive form 'yeš le' has already started to be analyzed by the students into its separate components thereby causing the LI errors.

Preposition le possessive/attributive: Possessive construction (related to pronoun possessive described above) is present when the possessed object is in the nominative case while the possessor is in the dative case eg., 'yeš ly sfarim' [I have the books], and ''eyn ly sfarim' [I don't have books]. Attributive constructions is the presence of a subject pronoun and an adjective, eg., 'hy' re'vah' [she is hungry]. The percent of errors dropped from 92 percent in grade 2 to 83 percent in grade 3 (Adiv, 1984c).

9.		šošanah 'ohevet likro'.	[Shoshanah likes to read.]
		haval _____ sipur.	[It is too bad _____ a book.]
*	a.	še'ein lah	[that she does not have]
	b.	šelo' lah	[that no to her -incorrect form]
	c.	šelo' hi'	[that no to she - incorrect form]
	d.	še'ein hi'	[that none to she-incorrect form]
9.		'aviygayl ohevet lihtov.	[Avigail likes to write.]
		haval _____ 'iparon.	[It is too bad _____ a pencil.]
	a.	šelo' lah	[that no to her - incorrect form]
	b.	še'eyn hi'	[that not she -incorrect form]
*	c.	še'eyn lah	[that she does not have]
	d.	šelo' hi'	[that no she -incorrect form]

The preposition 'le possessive' caused difficulty for the students in Adiv's study but little difficulty for the students in the present study.

Item 9: Three-quarters (75 percent) of the students correctly chose the form 'še'eyn lah' ['that she does not have' literally 'that none to her'].

The same explanation that was given for the pronoun possessive would be applicable here - that the grammatical concept ''eyn le..' either does not pose a problem for the students, or that this is an unanalyzed chunk which is reproduced.

Third person feminine singular past: The verb conjugated must be in agreement with the pronoun it describes, as well be conjugated in the past tense. The percent of errors dropped from 74 percent in grade 2 to 66 percent in grade 3 (Adiv 1984c).

5.	hayom širah holeḥet		[Today Shira is going to
	leveyt-hasefer.		school.]
	'etmol širah lo' _____		[Yesterday Shira _____
	leveyt-hasefer.		to school.]
	a.	holeḥ	[is going (m s present)]
	b.	halḥu	[went (pl past)]
	c.	halaḥ	[went (m s past)]
*	d.	halḥah	[went (f s past)]
5.	'etmol myḥael lo' _____		[Yesterday Michael did not _____
	aruḥat-boker.		breakfast.]
	a.	'aḥlu	[ate (pl past)]
	b.	'oḥelet	[is eating (f present)]
	c.	'aḥlah	[ate (f s past)]
*	d.	'aḥal	[ate (m s past)]

8.	yehudit lomedet 'ivryt.		[Yehudit is studying Hebrew.]
	'etmol yehudit lo' _____.		[Yesterday Yehudit did not _____.]
	a.	lomedet	[is studying (f s present)]
*	b.	lamdah	[study (f s past)]
	c.	lamdu	[study (m pl past)]
	d.	lamad	[study (m s past)]

8.	tamar kore't sipur.		[Tamar is reading a story.]
	'etmol tamar lo' _____ sipur.		[Yesterday Tamar did not _____ a story.]
	a.	kore't	[is reading (f s present)]
	b.	kara'	[read (m s past)]
	c.	kar'u	[read (m pl past)]
*	d.	kar'ah	[read (f s past)]

The third person feminine singular past did cause difficulty for the students in Adiv's study, as it did for the students in the present study. The subjects had received formal instruction in this grammatical concept, but only in the singular.

Item 5: More than half the students (63 percent) correctly chose the feminine singular form in the past tense, while only 19 percent chose the incorrect masculine form in the past tense. A number of students had difficulty discriminating between the present and past tense.

Item 8: Almost half of the students correctly chose the feminine singular form in the past tense (47 percent) while 22 percent chose the feminine form in the present tense.

Apparently some students are not yet fully familiar with either stem form past or the conjugations of the past tense, and therefore confuse the past and the present forms as well as the masculine and feminine forms.

preposition 'et: functions as a marker of the accusative case when the accusative case is preceded by the article 'ha' (a determined noun). The percentage of errors

dropped from 20 percent in grade 2 to 13 percent in grade 3.

6.		sarah kore't _____.	[Sarah reads _____.]
	a.	'et sipur	[story - incorrect form]
	b.	mihasipur	[from the story - incorrect form]
*	c.	'et hasipur	[the story]
	d.	hasipur	[the story - incorrect form]
6.		širah gomeret _____ šelah.	[Shira is completing her _____.]
	a.	'avodah	[work.]
	b.	'et 'avodah	[work - incorrect form]
*	c.	'et ha'avodah	[the work]
	d.	ha'avodah	[the work - incorrect form]

The preposition 'et was considered borderline learned (following Dulay's 10 percent criterion) in Adiv's study, but almost half of the students in the present study were experiencing difficulty with this grammatical form.

Item 6. Almost half (44 percent) of the students correctly chose ''et hasipur' [this particular book]. One quarter (25 percent) chose 'hasipur' [the book], a clear case of omission. Slightly less than one quarter (22 percent) chose 'mihasipur' [from the story], a clear case of LI from the L1.

Third person plural present: The conjugated verb must agree with the pronoun in gender and number. The percentage of errors rose from 34 percent in grade 2 to 44 percent in grade 3.

11.	simḥah vesiporah _____ bakitah.		[Simhah and Tziporah _____ in the class.
	a.	yošev	[sit (m s present)]
	b.	yašvah	[sat (f s past)]
*	c.	yošvot	[sit (f pl present)]
	d.	yošvim	[sit (m pl present)]
11.	rinah veronyt _____ sefer basifryah.		[Rena and Ronit _____ a book in the library.]
	a.	kor'ym	[read (m pl)]
	b.	kore't	[read (f s)]
*	c.	kor'ot	[read (f pl)]
	d.	kore'	[read (m s)]
13.	malkah vedany'elah _____ miḥtav.		[Malkah and Daniella _____ a letter.]
	a.	kotev	[write (m s)]
	b.	kotevet	[write (f s)]
*	c.	kotvot	[write (f pl)]
	d.	kotvym	[write (m pl)]
13.	malkah vedany'elah _____ 'aruḥat-ṣoharaym.		[Malkah and Daniella _____ lunch.]

	a.	ohel	[eat (m s)]
*	b.	ohlot	[eat (f pl)]
	c.	ohelet	[eat (f s)]
	d.	ohlim	[eat (m pl)]

Third person plural present caused increasing difficulty for the students in Adiv's study while not quite as much to the students in the present study. The students in this study had not as yet been introduced to the masculine and feminine plural conjugations in the present tense.

Item 11: More than half (66 percent) of the students correctly chose the feminine plural present to be coupled with the feminine plural noun, while 28 percent incorrectly chose the masculine plural present.

Item 13: Slightly more than half (53 percent) of the students correctly chose the feminine plural form in the present tense to be linked with the present plural pronoun, while 25 percent incorrectly chose the masculine plural form and almost one quarter (22 percent) incorrectly chose the feminine singular form. Given the fact that the students had not as yet been formally introduced to this grammatical concept, they performed very well.

Instructional Goal

The ID & D to follow is pictured as one unit in a series of nineteen units, each specifically designed to cover eighteen major LI errors (as delineated by Adiv, 1984c). The students are in grade 3.

The Goal is: The student will correctly use the preposition possessive and the preposition le possessive.

Instructional Analysis of a Goal

The goals of our ID & D encompass two learning domains: verbal information and intellectual skills. Verbal skills involves stating facts, providing specific answers, giving only one answer for each question (Dick & Carey, 1985). Intellectual skills are divided into four types: discriminations, concepts, rules, and problem solving. Discriminations occurs when the learner can distinguish whether two things are similar or dissimilar. Concept attainment occurs when the learner categorizes objects according to labels and characteristics. Rules occurs when the learner applies a rule. Problem solving occurs when the learner selects and applies a variety of rules in order to solve problems (Dick & Carey, 1985; Gagné, Briggs, Wager, 1988). The instructional analysis of this goal will focus primarily on the application of rules, accompanied by verbal information.

Instructional Analysis of the Objectives

The five objectives (illustrated in Figure 2, above) are to be given over a period of five lessons. Skills 1 and 2 are to be given in the first lesson; skill 3 is to be given in the second lesson; skill 4, the mastery test, is to be given in the third lesson; skill five, remediation, is to be given in the fourth lesson, if necessary; the retaking of the mastery test, skill 4, is to be given in the fifth lesson.

Objective 1: The first objective is for the student to identify 'eyn le' ['does not have', literally 'there is not to], 'yeš le' ['has', literally 'there is to'] in the story "'eliševa kamah meuheret" [Elisheva gets up late]. This skill is accompanied by the verbal information skill of identifying the meaning of 'eyn' [not], 'eyn le' ['does not have, literally 'not to'], 'yeš' ['has', literally 'there is'], and 'yeš le' ['has', literally 'there is to'].

Objective 2: the students complete the given sentences with either 'eyn' [not], 'eyn le' ['does not have', literally 'there is not'] 'yeš' ['has', literally 'there is'], 'yeš le' ['has', literally 'there is to']. If the students have difficulty answering these questions the teacher may choose to remind the students of the correct answer, using the blackboard if necessary.

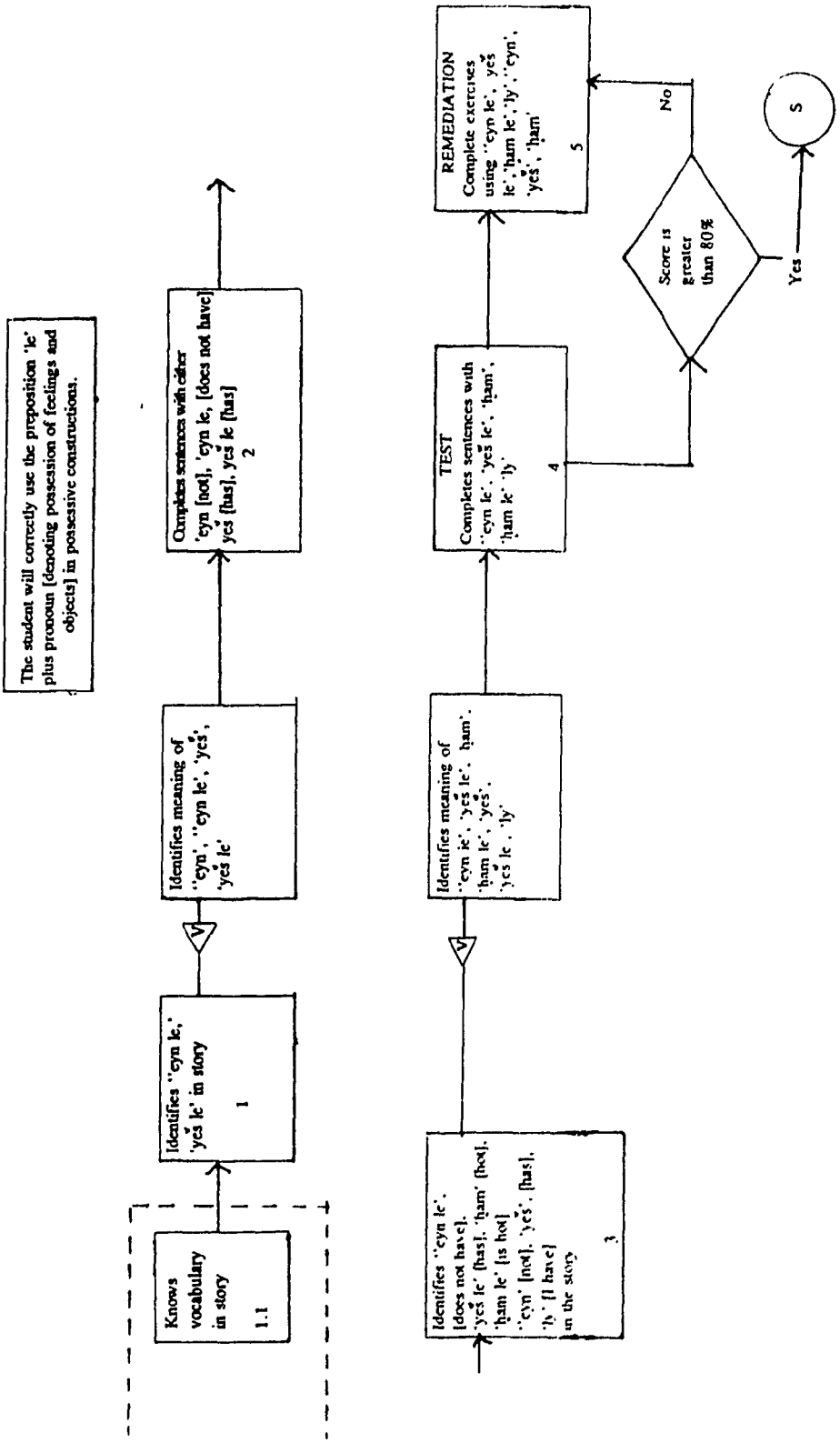
Objective 3: is to be introduced in lesson 2. In this objective the student is to identify ''eyn le' [does not have], 'yeš le' [has], 'ham' [hot], ''eyn' [not], ''eyn le' [does not have], 'yeš' [has], 'ly' [I have] in the story "ḥam lesara" [Sarah is hot]. This skill is accompanied by the verbal information skill of identifying the meaning of ''eyn le' [does not have], 'yeš le' [has], 'ḥam' [hot], 'ḥam le' [is hot], 'yeš' [has], 'yeš le' [so and so has], and 'ly' [I have].

Objective 4: The students complete a fill-in-the-blank exercise using ''eyn le', 'yeš le', 'ḥam', 'ḥam le', and 'ly' correctly.

Objective 5: The students who do not attain an 80 percent accuracy rate are to be taken out of the classroom to work with a teaching-assistant for remediation. The remediation encompasses an oral review of the usages of ''eyn le', 'yeš le', 'ḥam', 'ḥam le', and 'ly'

Figure 2

Hebrew - Instructional Analysis of the Objectives



followed by an exercise matching ''eyn le', 'yeš le', 'ḥam', 'ḥam le', and 'ly' to their proper context. The exercise is to be corrected together with the teaching-assistant. A second mastery test is to be administered to each student, but only those items answered incorrectly on the original test are to be answered by the students. The teaching-assistant corrects each test as it is turned in by the students. If an 80 percent accuracy rate is not achieved the teaching-assistant orally reviews the error with the student and than the student changes the answer on the test paper.

Performance Objectives

The instructional objective 1 is oral, 2 is written in nature, objective 3 is oral, 4 is in written form, objective 5 is both oral and written.

Lesson 1

1. Given a story containing ''eyn le...' ['does not have', literally, 'not to'] and 'yeš le...' ['has', literally 'to'] the students read the story, circle these elements in the story, identify their meaning, and read those sentences containing these elements.
2. Given a copy of the same story, but with these elements left blank, the students choose the correct element to complete the blank.

Lesson 2

1. Given a story containing the elements 'ḥam' [hot] and 'ḥam le...' ['is hot', literally, 'to... hot']; ''eyn' ['does not', literally, 'not'] and ''eyn le...' ['does not have', literally, 'not to']; and 'yeš'

[has], 'yeš le...' ['has', literally, 'to'], 'ly' ['I have', literally, 'to me'] the students read the story and circle of these elements in the story.

Lesson 3: Mastery Test

1. Given a copy of the same story, but with blanks present instead of ''eyn le...' ['does not have', literally, 'not to'], 'yeš le...' ['has', literally 'to'] 'ḥam' [hot] and 'ḥam le...' ['is hot', literally, 'to... hot']; ''eyn ' ['does not', literally, 'not'] and ''yn le...' ['does not have', literally, 'not to']; 'yeš' [has], 'yeš le...' [has], and 'ly' ['I have', literally, 'to me'] the students complete the sentences, choosing from the choices offered to an eighty percent accuracy level.

Remediation

1. Those students who do not attain an eighty percent accuracy level, complete a remediation stencil on the usages of these elements to an eighty percent accuracy level.
2. Those students retake the test.

While it may prove to be both useful and productive to create test items to correspond to each performance objective there are two reasons why this would not be feasible. The first being that grade 3 students in a classroom do not necessarily know names of grammatical elements, ie., pronouns, and it would not fit into the curriculum to teach it at this time; it is more important to teach the student the concept than the

name of the concept. The second being that the review of the elements listed in the performance objectives can be easier reviewed through means other than written test items, as will be demonstrated in the teaching strategies chapter below.

Instructional Strategies

Pre-Test (20 minutes) to be administered in week 1.

It is important that the teacher convey to the grade 3 students the importance of this test, in that the students should try their best. However, in order to relieve the anxiety a 'surprise test' would elicit, it is imperative that the teacher explain to the students that the test will not count for end of the year marks.

Objectives:

The students try their best in answering the multiple-choice questions of 'Test 1' by themselves.

Teacher's Activities:

The teacher distributes the tests to all students. When the students have finished the test the teacher collects them.

Refer to Appendix B for the pre-test.

Lesson 1: (20 minutes)

A. Oral Exercise:

1) The teacher reads the story "'eliševa kama me'uḥeret" ["Elisheva gets up late"] (with or without student participation).

2) The teacher reviews ''eyn le...'['does not have', literally, 'not to']

and 'yeš le...' ['has', literally 'there is to'].

3) The teacher tells the students to circle in the story ''eyn le...' ['does not have', literally, 'not to'] and 'yeš le...' ['has', literally 'there is to'].

4) The teacher ask students to read those sentences which have ''eyn le...' [does not have, literally, 'not to'] and 'yeš le...' [has, literally 'to'].

B. The teacher distributes the photostated sheets of ''eliševa kama me'uḥeret' ["Elisheva gets up late"].

1) The students circle the correct answer for each blank.

2) The students check their answers; corrections are written on the side of the stencil.

Refer to Appendix B for the exercise sheets.

Lesson 2 (15 minutes)

A. The teacher distributes the story "ḥam le sarah" ["Sarah is hot", literally 'hot to Sarah'].

1) The teacher reads the story.

2) The teacher tells the students to circle ''eyn le...' '[does not have', literally, 'not to'], 'yeš le...' ['has', literally 'there is to'] 'ḥam' [hot] and 'ḥam le...' ['is hot', literally, 'there is hot to']; ''eyn' ['does not', literally, 'not'] and ''eyn le...' ['does not have', literally, 'not to']; 'yeš' ['has', literally 'there is'],

'yeš le...' ['has', literally, 'there is to'], and 'ly' ['I have', literally, 'to me'].

3. The teacher corrects the exercises with the students.

Refer to Appendix B for the exercise sheets.

Lesson 3: Test (20 minutes)

A. The teacher distributes the mastery test, an adapted version of "ḥam lesarah" ["Sarah is hot", literally 'hot to Sarah'] to all students.

1) The students fill in the blanks from the choices offered.

Refer to Appendix B for the mastery test.

Lesson 4: Remediation (15 minutes)

A. Those students who do not attain eighty percent on the test are be taken out of the class for remediation on 'yeš' ['has', literally 'there is'], 'yeš le...' ['has', literally 'there is to'] 'ḥam' [hot] and 'ḥam le...' ['is hot', literally, 'there is hot to'], ''eyn' ['does not', literally, 'not'] and ''eyn le...' ['does not have', literally, 'not to'], and 'ly' ['I have', literally, 'to me'].

Refer to Appendix B for the Remediation sheets.

B. These students retake the Test but answer only those items that were completed incorrectly.

C. During this time those students who attained accuracy the first time taking the test will be completing homework assignments, writing a composition or reading a Hebrew book with the home-room teacher.

Post-test (20 minutes).

Objectives:

The students try their best in answering the multiple-choice questions of 'Test 2' by themselves.

Teacher's Activities:

The teacher distributes the tests to all students. When the students finish the test the teacher collects them.

Refer to Appendix B for the post-test.

Results - French Study

Pilot Study

Subjects

The sample consisted of 18 subjects from the grade 3 class of a Hebrew day school in a suburban Montreal school. The school is predominantly Anglo-Canadian. Academic subjects in the school include the secular subjects of math, science, gym, French, English and Hebraica/Judaica subjects (Hebrew literature, history, Bible, (and so on).

The pre- and post-tests were administered at the beginning of the month of June over a three week period. It was not considered necessary to wait several weeks for the introduction of the Hebrew ID & D to avoid confusion between the two languages being tested since the students study four languages a day on a regular basis.

Instruments

A nineteen item multiple-choice French pre-test (KR-20 = .88) (Kuder-Richardson reliability technique is a standard measure of internal consistency) was administered to the grade 3 class. The pre-test contained ten of the grammatical categories outlined by Adiv (1984c): preposition (example 1), reduced form 'de' (examples 2 and 3), past tense singular (example 5), feminine adjective (examples 4, 6 and 7), third person feminine subject pronoun (examples 8 and 9), third person plural and present indicative (example 10), third person plural present indicative (example 11), idiomatic expression coupled with the verb être (example 12), idiomatic expression coupled with the verb avoir (examples 13 and 14), reflexive pronoun (example 15),

contracted form (examples 16 and 17), and objective pronouns (examples 18 and 19). The classroom teacher administered the pre-test by reading each item aloud with the accompanying choices, and waiting until all the students completed answering that item, and than would continue with the next item of the test.

A calculation was made of the test items which were answered incorrectly. Those items (12, 13, and 14 - idiomatic expression) which garnered the most incorrect answers were used as the basis of the ID & D.

The students received two ML lessons (maximum 20 minutes each), given by the classroom teacher, following the ML handbook authored by the researcher (refer to Appendix A). The instruction was in the usages of the verbs avoir [to have] and être [to be] - LI errors as reflected in the pre-test.

The ML test (duration 20 minutes) was administered by the classroom teacher. The researcher gave the remediation lesson to those students who did not attain 80 percent on the mastery test and than administered the ML test.

A nineteen item multiple choice post-test was then administered to the group (KR-20 = .72). The post-test contained eleven of the grammatical categories outlined by Adiv (1984c): preposition (item 1), reduced form 'de' (items 2 and 3), feminine single article (item 4), past tense singular (item 5), feminine adjective (items 6 and 7), third person feminine subject pronoun (items 8 and 9), third person plural and present indicative (item 10), third person plural present indicative (item 11), idiomatic expression coupled with the verb être (item 12), idiomatic expression coupled with the verb avoir (items 13, 14), reflexive pronoun (item 15), contracted form (items 16 and 17), and

objective pronouns (items 18 and 19). The classroom teacher administered the post-test by reading each item aloud with the accompanying choices, and waiting until all the students completed answering that item, and than continued with the next item of the test.

Results

A paired t-test was performed to ascertain if the ML instructional design and development had made a significant difference in reducing the LI errors. The results on the two items (items 13 and 14) were t (df=15) = -3.87, p =.002. The pre-test yielded a mean of 0.3, and a standard deviation of 0.5 and the post-test yielded a mean of 1.3 and a standard deviation of 0.9 (refer to Table 1).

An item analysis was done on both the pre and post tests. The formula followed was taken from Sax (1980). Each pre- and post-test is scored, and arranged in order from high to low scores. The lowest and highest 27 percent of the tests are removed, leaving the middle 46 percent. The number of students in the upper portion of the class who responded to each option is recorded in column 1; the number of students in the lower portion who responded to each alternative is recorded in column 2. The number of students in the lower group who chose the correct choice is subtracted from the number of students in the higher group who chose the correct choice; the difference is recorded in column 3. The difference is than divided by the number of students in the upper (or lower) group; the resulting number is the discrimination index (DI) and is recorded in column 4. The number of students in the middle group who chose the correct choice for each item is then added and that number is placed in column 5. The number of subjects who responded correctly in the upper, lower and middle groups is

Table 1: French Pilot Study Results

Grade 3 Results

	KR 20	Mean	SD
Pre-test score /20	.88		
Post-test score /20	.72		
Pre-test score /2		0.3	0.5
Post-test score /2		1.3	0.9
Pre-test score /18		12.1	2.2
Post-test score /18		11.8	2.8

than added together and recorded in column 6. This number is then divided by N, the total number of students taking the test; the result is recorded in column 7 and is called the difficulty level, abbreviated as P. On the pre-test (containing nineteen items, but with one item (item 10) containing two parts, thereby resulting in a twenty item test) the discrimination index (DI) ranged from -.5 to .75, and the difficulty level (P) ranged from .12 to 1. Those items which had a DI of .21 and over (items 2-4, 6, 7, 9-13, 16-19) were considered good, while those items which had a DI below 0 (5, 15) were not, those which had a DI between 0 and .20 (1, 8, 14) were considered borderline. Those items which had a P level of 0 to .33 (5, 13, 14) were considered too difficult, items with a P value between .34 to .67 (2-4, 6, 16, 18, 19) were considered good items; those items with a P value over .68 (1, 7-12, 15, 17) were considered too easy.

On the post-test the discrimination index (DI) ranged from -.25 to 1, and the difficulty level (P) ranged from .12 to .94. Those items which had a DI of .21 and over (items 1, 3-15, 17, 18) were considered good, while those items which had a DI below 0 (2) were not, those which had a DI between 0 and .20 (16, 19) were considered borderline. Those items which had a P level of 0 to .33 (3, 16) were considered too difficult; items with a P value between .34 to .67 (2, 11b, 13, 14, 17, 19) were considered good items; those items with a P value over .68 (1, 4-11a, 12, 15, 18) were considered too easy.

The items which were considered a good measure of information learned included, as a result of the item analysis: items 2, 3, 4, 6, 16, 18, and 19 in the pre-test. The items in the post-test were not considered good items - either they did not

discriminate well between low and high - scoring students, or their difficulty level was either too high or too low.

The results of the item analysis were used to form the actual pre- and post-test study items.

Study

Subjects

The sample consisted of 35 subjects from the two third grade classes of a Hebrew day school in a suburban Montreal school. The school is predominantly Anglo-Canadian, but with a minority of students who have either French or Hebrew as their L1 (who were deleted from the present study). Secular subjects include mathematics, science, gym, English, French; Hebraica/Judaica subjects include Bible, Prayer, and Talmud (taught in Hebrew).

The pre- and post-tests were administered in the month of December over a three week period. It was not considered necessary to wait several weeks for the introduction of the Hebrew ID & D to avoid confusion between the two languages being tested since the students study three languages a day on a regular basis.

Instruments

A twenty item multiple-choice French pre-test was administered to two grade 3 classes by the researcher. One class served as the experimental group (KR-20 =.61), the other served as the control group (KR-20 =.65). The pre-test contained nine of the grammatical categories outlined by Adiv (1984c): reduced form 'de' (examples 1 and

3), idiomatic expression (items 2, 6, 10, and 13), feminine singular adjective (items 4, 7, and 9), past tense singular (item 5), third person feminine subject pronoun (items 8, 11, and 12), third person present plural indicative (items 14 and 15), reflexive pronouns (item 16), contracted form (items 17 and 18), and objective pronouns (items 19 and 20).

A calculation was made of the test items which were answered incorrectly. Those items which garnered the most incorrect answers were used as the basis of the ID & D. From the results items 2, 6, 10, 13 - idiomatic expression - were chosen as the focus of the ID & D.

The experimental group then received two ML lessons (maximum 20 minutes each) given by the researcher, in the instruction of the usages of the verbs avoir [to have] and etre [to be] - i.e., LI errors as reflected in the pre-test. The ML test (maximum time allowed was 20 minutes) was administered by the researcher. The researcher gave the remediation lesson given to those students who did not attain 80 percent on the mastery test and administered the ML test.

A twenty item multiple-choice French post-test was administered to both the experimental (KR-20 =.56) and control groups (KR-20 = .70) by the researcher. The post-test contained nine of the grammatical categories outlined by Adiv (1984c): reduced form 'de' (examples 1 and 3), idiomatic expression (items 2, 6, 10, and 13), feminine singular adjective (items 4, 7, and 9), past tense singular (item 5), third person feminine subject pronoun (items 8, 11, and 12), third person present plural indicative (items 14 and 15), reflexive pronouns (item 16), contracted form (items 17 and 18), and objective pronouns (items 19 and 20).

Results

Three analyses of variance performed on the pre-test scores (the four items reflected in the ML instructional design and development, the sixteen other items, and the complete twenty item pre-test) show no significant difference between the experimental and control groups.

Experimental Group

A paired sample t-test performed on the four items treated in the ML instructional design show t (df=15) = -5.55, $p < .001$; the pre-test yielded a mean of 1.3 and a standard deviation of 0.6 while the post-test yielded a mean of 2.6 and a standard deviation of 1.0 (refer to Table 2). A paired sample t-test performed on those items not treated in the ID & D show t (df = 15) = -2.07, $p = .056$; the pre-test yielded a mean of 7.4 and a standard deviation of 3.0 while the post-test yielded a mean of 8.4 and a standard deviation of 2.9. A paired sample t-test performed on the total test show t (df = 15) = -4.61, $p < .001$; the pre-test yielded a mean of 8.6 and a standard deviation of 3.2 while the post-test yielded a mean of 11.0 and a standard deviation of 3.0.

Table 2: French Study Results

Experimental Group

	KR 20	Mean	SD
Pre-test score /20	.61	8.6	3.2
Post-test score /20	.56	11.0	3.0
Pre-test score /4		1.3	0.6
Post-test score /4		2.6	1.0
Pre-test score /16		7.4	3.0
Post-test score /16		8.4	2.9

Control Group

	KR 20	Mean	SD
Pre-test score /20	.65	8.9	3.0
Post-test score /20	.70	10.3	3.0
Pre-test score /4		1.2	0.9
Post-test score /4		1.2	0.6
Pre-test score /16		7.7	2.4
Post-test score /16		9.1	2.7

Control Group

A paired sample t-test performed on the four items treated in the ML instructional design show t (df=14) = .00 p = 1.000. A paired sample t-test performed on those items not treated in the ID & D show t (df = 14) = -2.02, p = .063. A paired sample t-test performed on the total test show t (df = 14) = -1.92, p = .076 (refer to Table 2 for the means and the SD).

An analysis of variance performed on the post-test scores, comparing the experimental and control groups, on the four items reflected in the ML instructional design and development show F (1, 30) = .70, p < .0001. An analysis of variance performed on the sixteen other items show no significance. An analysis of variance performed on the complete twenty item post-test also showed no significant difference between the experimental and control groups.

Results - Hebrew Study

Pilot Study

Subjects

The sample consisted of 22 subjects from the grade 2 class, and 18 subjects from the grade 3 class of a Hebrew day school in a suburban Montreal school.

The pre- and post-tests were administered at the beginning of the month of June over a three week period. It was not considered necessary to wait several weeks for the introduction of the Hebrew ID & D to avoid confusion between the two languages being tested since the students study four languages a day on a regular basis.

Instruments

A fifteen item multiple-choice Hebrew pre-test (KR-20 = .77) was administered to the grade 3 class and the same test was administered to the grade 2 class (KR-20 = .24). An analysis of variance performed showed no significant difference between the two grades. The pre-test contained thirteen of the grammatical categories outlined by Adiv (1984c) plus one inserted by the researcher (item 7, at the request of the teacher, but deleted from the results), masculine singular adjective (item 1), stem form past (item 2), stem form present (item 3), third person masculine singular pronouns (item 4), preposition 'et (item 5), third person plural pronouns (item 6), third person plural present (item 8), third person feminine singular pronoun (items 9 and 10), possessive construction (items 11 and 15), third person feminine singular present (item 12), third person feminine singular past (item 13), and feminine singular adjective (item 14). The classroom teacher administered the pre-test by reading each item aloud with the accompanying choices, and waiting until all the students completed answering that item, and than continued to the next item.

A calculation was made of the test items which were answered incorrectly. Those items (11, and 15 - possessive construction) which garnered the most incorrect answers were used as the basis of the ID & D. From the results items 11 and 15, possessive construction, were chosen as the focus of the ID & D. The groups then received two ML lessons (20 minutes each) of instruction in the usages of the possessive constructions ('yeš ly' ['I have' literally 'there is to me'], ''eyn ly' ['I do not have', literally 'none to me'], 'kar ly' ['I am cold, literally 'cold to me'], 'ḥam ly' ['I am hot', literally 'hot to

me'] - by the teacher in consultation with the hand-book authored by the researcher (refer to Appendix B). The ML test (maximum duration 20 minutes) was administered by the classroom teacher. The researcher gave the remediation lesson to those students who did not attain 80 percent accuracy on the mastery test and administered the ML test. A fourteen item multiple choice post-test was then administered to the grade 3 class (KR-20 = .86) and to the grade 2 class (KR-20 =.21) in order to ascertain if the ML instructional design and development had made a significant difference in reducing the LI errors. The post-test contained twelve of the grammatical categories outlined by Adiv (1984c): singular adjective (item 1), stem form past (item 2), stem form present (item 3), third person masculine singular pronouns (item 4), preposition 'et (item 5), third person plural pronouns (item 6), third person plural present (item 8), third person feminine singular pronoun (items 9 and 10), possessive construction (items 11 and 15), third person feminine singular present (item 12), third person feminine singular past (item 13), feminine singular adjective (item 14). The classroom teacher administered the pre-test by reading each item aloud with the accompanying choices, and waiting until all the students completed answering that item, and than continued with the next item.

Results

A paired t-test was performed on the pre- and post-test scores on the two items which reflected the ID & D. The results for both the grade 2 and grade 3 tests were not significant (refer to Table 3 for the means and the SD).

An item analysis was done on both the pre- and post-tests of the grade 2 and 3 results. The extra item (7) which was added to the pre-test at the request of the teacher

Table 3: Hebrew Pilot Study Results

Grade 2 Results

	KR 20	Mean	SD
Pre-test score /14	.24		
Post-test score /14	.21		
Pre-test score /2		0.9	0.7
Post-test score /2		1.2	0.7
Pre-test score /12		6.6	1.9
Post-test score /12		6.9	1.7

Grade 3 Results

	KR 20	Mean	SD
Pre-test scores /14	.77		
Post-test scores /14	.86		
Pre-test score /2		1.3	0.8
Post-test score /2		1.0	0.7
Pre-test score /12		8.1	2.7
Post-test score /12		8.3	2.9

was eliminated from the study, and was not matched with an equivalent item in the post-test.

On the grade 2 pre-test the DI ranged from -.2 to .8, and the P ranged from .14 to.95. Those items which had a DI of .21 and over (2-6, 8-9, 11, 13, 15), were considered good, while those items which had a DI below 0 (1) were not, those items which had a DI between 0 and .20 (9, 10, 12, 14) were considered borderline. Those items which had a P level of 0 to .33 (1-2, 15) were considered too difficult; items with a P value between .34 and .67 (3-6, 9-11, 13) were considered good items; those items with a P value over .68 (8, 12, 14) were considered too easy.

On the grade 2 post-test the DI ranged from -.2 to .6, the difficulty level ranged from .14 to .95. Those items which had a DI of .21 and over (2, 4, 7-12) were considered good, while those items which had a DI below 0 (5) were not, those which had a DI between 0 and .20 (1, 3, 6, 13, 14) were considered borderline. Those items which had a P level of 0 to .33 (1, 6) were considered too difficult, items with a P value between .34 to .67 (2, 4, 5, 7-9, 11, 12, 14 (were considered good items; those items with a P value over .68 (3, 10, 13) were considered too easy.

On the grade 3 Hebrew pre-test (in which item 7 was deleted) the discrimination index (DI) ranged from -.2 to .8, and the difficulty level (P) ranged from .17 to .94. Those items which had a DI of .21 and over (items 1-4, 6, 8-12, 14-15) were considered good, while those items which had a DI below 0 (13) were not, those which had a DI between 0 and .20 (5) were considered borderline. Those items which had a P level of 0 to .33 (1) were considered too difficult; items with a P value between .34 to .67 (3,

5, 9, 13-15) were considered good items; those items with a P value over .68 (2, 4, 6, 8, 10-12) were considered too easy.

On the grade 3 Hebrew post-test the discrimination index (DI) ranged from .25 to 1, and the difficulty level (P) ranged from .13 to .88. Those items which had a DI of .21 and over (1-14) were considered good, while those items which had a DI below 0 were not, those which had a DI between 0 and .20 were considered borderline. Those items which had a P level of 0 to .33 (1, 14) were considered too difficult; items with a P value between .34 to .67 (2, 5) were considered good items; those items with a P value over .68 (3, 4, 6-13) were considered too easy.

The items which were considered a good measure of information learned included, as a result of the grade 3 item analysis, items 3, 5, 9, 14, 15 of the pre-test, items 2, 5, 6, 8, 9, 12 of the post-test.

Based on the statistical analyses, and the item analyses discussed above, modifications were made on the pre and post-tests. A new set of tests were created, and modifications were made on the ID & D. The grade 2 students were not included in the study because: a) the pilot test items were apparently too long for their level of knowledge, i.e., their written expertise lagged behind their verbal expression more than had been anticipated by the researcher; and the KR-20 results were very low.

Study

Subjects

The sample consisted of 35 subjects from the two third grade classes of a Hebrew day school in a suburban Montreal school. The school is predominantly Anglo-Canadian, but with a minority of student who have either French or Hebrew as their L1 (who were deleted from the present study). Secular subjects include mathematics, science, gym, English, French; Hebraica/Judaica subjects include Bible, Prayer, and Talmud (taught in Hebrew).

The pre- and post-tests were administered in the month of December over a three week period. It was not considered necessary to wait several weeks for the introduction of the Hebrew ID & D to avoid confusion between the two languages being tested since the students study three languages a day on a regular basis.

Instruments

A thirteen item multiple-choice Hebrew pre-test was administered to two grade 3 classes by the researcher. One class served as the experimental group (KR-20 =.60), the other serving as the control group (KR-20 =.61). The pre-test contained seven of the grammatical categories outlined by Adiv (1984c) plus one inserted by the researcher: third person feminine singular pronoun (item 1), third person feminine singular present (items 2 and 3), pronoun possessive (items 4, 7, and 12), third person feminine singular past (items 5 and 8), preposition 'et (item 6), preposition 'le' possessive (item 9), third person feminine plural pronoun (item 10), third person plural present (items 11 and 13). The researcher administered the pre-test by reading each item aloud with the

accompanying choices, and waiting until all the students completed answering that item, and than continued with the next item.

A calculation was made of the test items which were answered incorrectly. Those items which garnered the most incorrect answers were used as the basis of the ID & D. From the results items 4, 7, 9 and 12 - possessive construction - were chosen as the focus of the ID & D. The experimental group then received two ML lessons (20 minutes each) of instruction in the usages of the possessive constructions ('yes ly' ['I have', literally 'there is to me'], ''eyn ly' ['I do not have', literally 'none to me'], 'kar ly' ['I am 'cold,' literally 'cold to me'], 'ḥam ly' ['I am hot', literally 'hot to me'] - LI errors as reflected in the pre-test. The ML test was given (maximum duration of 20 minutes), followed by a remediation lesson given to those students who did not attain 80 percent accuracy on the mastery test. These students then rewrote the mastery test, but only those items to which they responded incorrectly.

A thirteen item multiple choice post-test was then administered to the both the experimental (KR-20 = .75) and control groups (KR-20 = .74), ascertaining if the ML instructional design and development had made a significant difference in reducing the LI errors. The post-test contained seven of the grammatical categories outlined by Adiv (1984c) plus one inserted by the researcher: third person feminine singular pronoun (item 1), third person feminine singular present (items 2 and 3), pronoun possessive (items 4, 7, and 12), third person feminine singular past (items 5 and 8), preposition 'et (item 6), preposition 'le' possessive (item 9), third person feminine plural pronoun (item 10), and third person plural present (items 11 and 13). The researcher administered the

post-test by reading each item aloud with the accompanying choices, and waiting until all the students completed answering that item, and than continued with the next item.

Results

Three analyses of variance performed on the pre-test scores (on the four items reflected in the ML instructional design and development, the nine other items, and the complete thirteen item pre-test) show no significant difference between the experimental and control groups.

Experimental Group

A paired sample t-test performed on the four items treated in the ML instructional design show t (df=18) = -2.70, p = .015. The pre-test of these four items yielded a mean of 2.0 and a standard deviation of 1.0, while the post-test yielded a mean of 2.8 and a standard deviation of 1.3 (refer to Table 4 for the means and SD). A paired sample t-test performed on the nine items not treated in the ID & D show t (df = 18) = - 1.10, p = .285. The pre-test yielded a mean of 6.2 and a standard deviation of 1.7 while the post-test yielded a mean of 6.6 and a standard deviation of 1.9. A paired sample t-test performed on the total thirteen-item test show t (df = 18) = - 3.14, p = .006. The pre-test yielded a mean of 8.2 and a standard deviation of 2.3 while the post-test yielded a mean of 9.3 and a standard deviation of 2.7.

Control Group

A paired sample t-test performed on the four items treated in the ML instructional design show t (df=12) = 1.08 p = .303. A paired sample t-test performed on the nine items not treated in the ID & D show t (df = 12) = .61, p = .553. A paired sample

Table 4: Hebrew Study Results

Grade 3 Results

Experimental Group

	KR 20	mean	SD
Pre-test score /13	.60	8.2	2.3
Post-test score /13	.75	9.3	2.7
Pre-test score /4		2.0	1.0
Post-test score /4		2.8	1.3
Pre-test score /9		6.2	1.7
Post-test score /9		6.5	1.9

Control Group

	KR 20	mean	SD
Pre-test score /13	.61	8.5	2.2
Post-test score /13	.74	7.9	2.8
Pre-test score /4		2.2	0.9
Post-test score /4		1.9	1.3
Pre-test score /9		6.2	1.8
Post-test score /9		6.0	2.0

t-test performed on the total test show t (df = 12) = 1.17, p = .266.

An analysis of variance performed on the post-test scores on the four items reflected in the ML instructional design and development show F (1, 31) = 1.60, p = .067 i.e., approaching significance. An analysis of variance performed on the nine other items show no significance. An analysis of variance performed on the complete thirteen item post-test also showed no significant difference between the experimental and control groups (refer to Table 4 for the means and standard deviations).

Discussion

The written pre- and post-tests were based on Adiv's (1984c) study in which she tabulated the oral conversation of grade 1, 2, and 3 students and statistically analyzed the LI errors the students committed. The grammatical categories delineated by Adiv form the basis of the present study.

This study has four purposes: 1) to ascertain if the results of this study are similar to the results of Adiv's (1984c) study; 2) to ascertain whether the design has aided the students in their efforts to overcome LI errors for that particular grammatical concept; 3) to ascertain whether there is a carry-over effect from one grammatical category to another in terms of either eradicating or decreasing the errors due to LI; and 4) to ascertain whether there is a transfer of knowledge from the written to the oral expression. Each of these questions will be treated for both the French tests and the Hebrew tests. Following are suggestions for the implementation of the ID & D in the

SLL classroom.

French Instructional Design, Development and Evaluation

Before discussing the results of the pre-and post-tests and the potential implementations of the ML instructional design and development in a classroom setting it is imperative to evaluate the pre- and post-tests themselves. The internal consistency (as measured by the KR-20) was in the acceptable range of .61 for the experimental group and .65 for the control group. However, the internal consistency fell to .56 for the experimental post-test and rose to .70 for the control post-test. Bernard (1992) suggests the reason for the decrease may be attributed to increased homogeneity of the experimental group.

Whether the results of Adiv's (1984c) study have been replicated in the present study will now be examined. Although Adiv used different statistical methods from the ones employed in the present study, it is possible to observe similarities in the results. From the analysis of variance it was found that there is no significant difference between the experimental and control groups, therefore it was possible to combine observations made from the pre-test results.

Pre-test results from the combined experimental and control groups were compared with the results of Adiv's study. It was found that the idiomatic expressions (items 2, 6, 10 and 13), passé composé (item 5), third person plural present indicative (items 14 and 15), and reflexive pronouns (item 16) caused similar difficulties for the students of both studies. The feminine singular adjective (items 4 and 7), third person

feminine subjective pronouns (items 8, 11, and 12), contracted form of the article (items 17 and 18) and the object pronouns (items 19 and 20) produced more LI errors in Adiv's study while the reduced form de (items 1 and 3) caused more difficulty for the subjects in the present study.

There are two explanations for the above-mentioned discrepancies between the results of Adiv's study and the present study. The first explanation being that the knowledge used in a recognition test (the multiple choice pre- and post-tests) is different from the knowledge needed to communicate verbally. In a previous discussion it was pointed out that in a written exercise there is ample time to think before a response, but with oral expression the responses must come immediately and almost by instinct. The second reason is that the subjects of Adiv's study were different from the subjects of the schools in the pilot study and the present study.

To summarize, the students in the present study had great difficulty with: reduced form de, idiomatic expression (avoir), passé composé and reflexive pronouns; some difficulty with: feminine singular adjective, third person plural present indicative and object pronouns; and little or no difficulty with: third person feminine subjective pronoun and contracted forms of the article. The ID & D for this group of students would focus on the seven grammatical concepts that engendered difficulty, i.e., those items which are present in the first two categories. Another group of students, either in another grade or another school, may experience other LI errors.

Hebrew Instructional Design, Development and Evaluation

Before discussing the results of the pre-and post-tests and the potential implementations of the ML instructional design and development in a classroom setting it is imperative to evaluate the pre- and post-tests. The internal consistency (as measured by the KR-20) fell in the acceptable range of .60 for the experimental group and .61 for the control group. The internal consistency rose to .75 for the experimental post-test and to .74 for the control post-test. By following Bernard's criterion, it is suggested that heterogeneity was still present in the post-test results.

Whether the results of Adiv's (1984c) study have been replicated in the present study will now be examined. Although Adiv used different statistical methods from the ones employed in the present study, it is possible to observe similarities in the results. From the analysis of variance it was found that there is no significant difference between the experimental and control groups, therefore it was possible to combine observations made from the pre-test results.

Pre-test results from the combined experimental and control groups were compared with the results of Adiv's study. It was found that the pronoun possessive (yeš le) (items 4 and 7), third person feminine singular past (items 5 and 8) and third person plural present (11 and 13) caused similar difficulty to the students in Adiv's study as well as those in the present study. Third person feminine singular pronoun (item 1), third person feminine singular present (items 2 and 3), pronoun possessive - ''eyn le' (item 12), preposition le possessive (item 9) produced more LI errors in Adiv's study than in the present study. Preposition 'et (item 6) caused more difficulty to the subjects in the

present study than experienced by the subjects in Adiv's study.

There are two explanations for the above-mentioned discrepancies between the results of Adiv's study and the present study. The first explanation being that the knowledge used in a recognition test (the multiple choice pre- and post-tests used in this study) is different from the knowledge needed to communicate verbally. In a previous discussion it was pointed out that in a written exercise there is ample time to think before a response, but with spoken expression the responses must come immediately and almost by instinct. The second reason is that the groups of students in Adiv's study were themselves different from the subjects of the two schools in the pilot study and present study. This difference may be due to the different day schools where the emphasis may vary depending on the type of Hebrew stressed, i.e., Biblical, Talmudic, or modern (the tests and exercises in the present study were composed using modern Hebrew). As well some schools may offer more hours of Hebrew, thereby affording the students greater exposure to Hebrew. It may very well follow that students in these schools may, because of their increased exposure to a language, have built up additional language learning strategies to be used in the acquisition of another L2.

To summarize, the students in the present study had great difficulty with: the pronoun possessive; some difficulty with: the third person feminine singular past, the preposition 'et, and the third person plural present; and little or no difficulty with: the third person feminine singular pronoun, the third person feminine singular present, and the preposition le possessive. The ID & D for this group of students would focus on the four grammatical concepts from the first two categories. Another group of students,

either in another grade or another school, may experience other LI errors.

Mastery Learning in the SLL Classroom

From the results of the French and Hebrew studies it is possible to conclude that the ML instructional design and development can indeed raise student scores significantly. While studies discussed above have stated that one standard deviation above the control group is the standard to which one may aspire (refer to Bloom, 1984b) it is by no means the norm (refer to Slavin, 1987a). The experimental group's scores of both the French and Hebrew studies only attained one half a standard deviation above that of the control group.

The significantly higher scores positively influenced the experimental group in the French study to attain higher scores in the other items of the test, i.e., those not treated in the ID & D. Genesee et al. (1978) suggest that language skills, which may be common to English, French and even Hebrew, can be used in processing language concepts not yet formally learned. The addition of more items to the French and Hebrew pre- and post-test would be needed to prove this hypothesis.

In perusing the results of the pre- and post-tests the classroom teachers remarked that the test results did not accurately reflect the achievements of the students in their classrooms. Those students who achieved high results in the classroom did not do as well on the pre- and post-tests, and those students who did not perform well in the classroom performed very well on the pre- and post-tests. While the teachers suggested

that some students guessed the correct answers, the researcher does not think this explanation is valid since these same students did equally well on the post-tests. Instead one may suggest that the teaching methods and/or materials employed in the classroom by the classroom teacher did not necessarily elicit a positive learning experience from all students. Through the implementation of the pre- and post-tests a teacher may be able to obtain a different perspective on the individual student's strengths and weaknesses and tailor remediation or enrichment lessons accordingly.

The curriculum's purpose is to reduce LI errors before they become fossilized. The ML units may be used in any order, depending on the curriculum to be followed as well as the teacher's individual teaching style, although it is suggested that those grammatical concepts causing the most LI be addressed first in order to prevent fossilization.

It is suggested that the ML instructional design and development be implemented starting in grade three. By this time the students' oral and written language skills are sufficiently developed to allow carry-over effect from written production to verbal production. In the first year the curriculum is designed to be introduced in the classroom setting on a monthly or bi-monthly basis. The ML instructional design and development is not meant to interfere with the existing curriculum, but to enhance it by allowing the teacher more time to cover the curriculum offered by the school (in accordance with the Ministry of Education). While the benefits of the ML instructional design and development may not be apparent the first year, it is believed that by the second year the LI errors will have decreased dramatically (Bloom, 1976). Thus after the first year the

LI instructional design and development would only have to be utilized in the classroom on a maintenance basis. Through reducing LI errors at the beginning of the student's French and Hebrew learning career more time would be free later to devote to the school curriculum.

The pre- and post-tests would be introduced three times a year. The first set would be introduced in November, followed by a condensed version in February. The third and final set, to be introduced in June, would also serve as a summative evaluation. The summative evaluation would allow the teacher to evaluate the progress of the students from November, as well as the internal consistency and effectiveness of the ID & D. The results would allow the teacher to modify the whole ML LI curriculum for the new academic year starting in September.

The ML curriculum may be utilized in the classroom in any of the following three ways. Upon evaluating the pre-tests the teacher may find errors the whole class is making. In this instance the ID & D curriculum could take the form of a classroom instruction with the teacher giving the lesson to the whole class. In the likelihood that only certain individuals are making LI errors the teacher may choose to implement group ML exercises in which a tape recorder in conjunction with activity cards could be used. The ML instructional design and development could also be used on an individualized basis by the students themselves. In this instance the teacher, after perceiving an LI problem in an individual student's production, either written or verbal, would direct the student to that particular LI mastery learning unit. A third method to implement the ID & D would be in a small group format where students would work on LI units on a

rotating basis. It would also be possible for the teacher to create other instructional design and development units to complement or even replace the ones discussed here in order to conform to students' needs.

The ID & D units may take a variety of forms. The ML instructional design and development may be offered in a written-only form with the teacher giving verbal instructions and clarification. Audio tapes could also be used to tell stories and offer interactive dialogue, while activity cards could provide exercises and reinforcement. Once computer usage in the classroom is expanded, an interactive computer program could also be introduced. Games could be created, either by the teacher only, or in conjunction with the students.

Griffin (1985) suggests an oral focus in his ML instructional design and development. This format would not be applicable in a day school setting for two reasons. The first is that in the day schools the emphasis is placed on the whole-language approach, where "children are encouraged to acquire and expand their language skills through a combination of related reading, writing and speaking activities" (Roberts, 1990, p. 48). The second reason is that there is much more emphasis placed on reading texts (i.e., Siddur, Bible, Biblical commentaries, and Talmud in the higher grades) in the Hebrew classrooms so that an all-oral approach would not be feasible.

Adiv (1984c) and others have shown clearly how LI affects the acquisition of an L2. ML has been used, with great success, to teach math and science, but rarely has it been used in the SLL classroom. One reason that ML has not been implemented nearly as often in the SLL classroom is that many educators are now focusing on a whole-

language approach coupled with a naturalistic one (i.e., teaching the L2 in the L2). They believe that a non-naturalistic, or non-whole language approach should not be used in solving the problem of LI. Some educators also believe that LI is a part of the L2 learning process and that the errors will eventually work themselves out as the student is exposed more and more to the L2. They do not yet understand that once a grammatical concept is learned and used incorrectly the errors will fossilize (Adiv, 1980a). However, by discovering the LI error and correcting it at the onset, the student's progress in the L2 would be greatly accelerated.

The present study shows a significant decrease in LI errors in both the French and Hebrew tests when ML techniques are employed in the classroom. While the full-time implementation of ML techniques in the SLL classroom could interfere with the naturalistic approach of the L2 classroom, ML techniques would be an excellent part-time tool to be used in eradicating LI errors. In order to do this the teachers themselves would have to be willing to take the time to be trained on how to evaluate the pre- and post-tests as well as to do the actual evaluation. This could be accomplished through in-service training.

Future research could focus on the carry-over effect from written multiple choice to free written expression, and another carry-over effect to oral expression.

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Appendix A - French

PRE-TEST:

Duration: 20 minutes

Introduction:

The teacher will convey to the students the important of this test, in that the students should try their best. However, in order to relieve the anxiety a 'surprise test' would elicit, it is imperative that the teacher explain to the students that the test will not count for end of the year marks.

Objectives:

The students will try their best in answering the multiple-choice que ions of 'Test 1' by themselves.

Teacher's Activities:

The teacher will distribute the tests to all students.

When the students have finished the test the teacher will collect them.

Name:_____

3a 3b

TEST 1

Circle the word that best completes the following sentences:

1. Il y a beaucoup _____ livres sur la table.

   a. des
   b. les
   c. de
   d. le

2. C'est l'hiver.

   Shoshana _____ froid.

   a. à
   b. est
   c. a
   d. et

3. J'ai perdu mon stylo.

   Je n'ai pas ____ stylo.

   a. du
   b. de
   c. un
   d. le

4. La _____ fille est dans la classe.

   a. petit
   b. petits
   c. petite
   d. petites

5. Hier, Jeremy _____ tombé.

a. a
b. est
c. et
d. à

6. Le garçon _____ fatigué.

a. a
b. à
c. ont
d. est

7. Tu vis dans une _____ maison.

a. belle
b. beaux
c. belles
d. beau

8. Caroline joue dans la classe.

_____ joue dans la classe.

a. Il
b. Elle
c. Tu
d. Vous

9. Karen veut acheter deux _____.

a. voiture grande.
b. grandes voitures
c. voitures grandes
d. grande voiture

10. Gabriella voit une souris.

    Gabriella _____ peur.

    a. est
    b. à
    c. a
    d. ont

11. Tammy voit une jupe dans le magasin.

    _____ veut l'acheter.

    a. Il
    b. Elle
    c. Je
    d. Ils

12. Cari et Amanda sont dans la classe.

    _____ sont dans la classe.

    a. Elle
    b. Ils
    c. Elles
    d. Il

13. Jennifer _____ huit ans.

    a. à
    b. est
    c. sont
    d. a

14. Sarah et Tamar _____ dans la bibliothèque.

a. travaille
b. travailles
c. travaillent
d. travaillez

15. Michael et Joseph _____ à l'école.

a. marches
b. marche
c. marchez
d. marchent

16. Jonathan entre dans la classe et _____.

a. assieds
b. s'assied
c. assied
d. s'assieds

17. En hiver, nous aimons faire _____ ski.

a. le
b. de le
c. de
d. du

18. Cet après midi, Michelle va _____ cinéma.

a. à
b. a le
c. au
d. le

19. Je vais faire mon travail.

Je vais _____ faire.

a. lui
b. la
c. les
d. le

20. Tu veux parler à Seth?

Tu veux _____ parler?

a. de
b. la
c. le
d. lui

LESSON 1:

Duration: 20 minutes

A. Oral Exercise:

1) The teacher reads the story "Je te présente mon ami Tamar" (with or without student participation).

2) The teacher reviews the verbs 'avoir' and 'être'.

3) The teacher tells the students to circle in the story 'ai' and 'a'.

4) The teacher ask students to read those sentences which have 'ai' or 'a' in them.

5) The teacher asks the students when 'ai' and 'a' are used, and the answers are written on the board: to express age, or a need.

B. The teacher will distribute the photostated sheets of the adapted story "Je te présente mon ami Tamar".

1) The students circle the correct answer for each blank.

2) The students will check their answers; corrections will be written on the side of the stencil.

3) The teacher ask the students to give examples, orally, of the usage of the verb 'être'.

Name: _____

JE TE PRESENTE MON AMIE TAMAR

1 Bonjour!

2 Je m'appelle Ilana.

3 J'ai 7 ans et demie.

4 Je voudrais te présenter mon amie Tamar.

5 Tamar a aussi 7 ans.

6 Tamar a les cheveux bruns.

7 Tamar a un jeune frère, Avi,

8 et aussi une grande soeur, Jenna.

9 Avi a 3 ans, et Jenna a 9 ans.

10 Avi n'aime pas les chiens.

11 Avi a peur des chiens.

12 Mais Jenna et Tamar aiment beaucoup les chiens.

Name: _____

JE TE PRESENTE MON AMIE TAMAR

1	Bonjour!	
2	Je m'appelle Ilana.	
3	_____ 7 ans et demies.	[J'ai / Je suis]
4	Je voudrais te présenter mon amie Tamar.	
5	Tamar _____ aussi 7 ans.	[a / est]
6	Tamar _____ les cheveux bruns.	[a / est]
7	Tamar _____ un jeune frère, Avi,	[est / a]
8	et aussi une grande soeur, Jenna.	
9	Avi _____ 3 ans, et Jenna _____9 ans.	[est / a]
10	Avi n'aime pas les chiens.	
11	Il _____ peur des chiens.	[est / a]
12	Mais Jenna et Tamar aiment beaucoup les chiens.	

LESSON 2

Duration: 15 minutes

A. The teacher will distribute the story of "Une journée avec Aviva".

1) The teacher will read the story.

2) The teacher tells the students to circle the verb avoir and underline the verb être.

B. The teacher distributes the story "Une journée avec Aviva" containing blanks.

1) The students fill in the blanks from the choices offered.

2) The teacher will correct the stencils on the board.

3) The students will correct the stencils without changing their original answer.

Name: _____

UNE JOURNEE AVEC AVIVA

C'est le matin.

Aviva dort.

La mère entre dans la chambre et dit:

"Aviva, il est 7 heures et demie."

Aviva: "Oui, oui, je me lève."

Aviva se lave le visage et se peigne et s'habille.

Aviva entre dans la cuisine et dit à sa mère:

"Maman, j'ai faim. Qu'est ce qu'il y a pour déjeuner?"

La mère: "Qu'est ce que tu veux manger?"

Aviva: "Je voudrais des rôties et du fromage, s'il te plaît."

Aviva mange son petit déjeuner.

Aviva dit bonjour à sa mère, son père et sort de la maison.

Il fait chaud dehors. C'est l'été et Aviva a chaud.

Quand elle arrive à l'école elle a soif.

Elle boit de l'eau et elle est co ente.

Name: _____

UNE JOURNEE AVEC AVIVA

Aviva se léve à 7 heures et demie.

Aviva se lave le visage et se peigne et s'habille.

Aviva entre dans la cuisine et dit à sa mère:

"Maman, j' _____ faim. [ai / suis]

Qu'est ce qu'il y a pour déjeuner?"

La mère demande: "Qu'est ce que tu veux manger?"

Aviva: "Je voudrais des rôties et du fromage, s'il te plaît."

Aviva mange son petit déjeuner.

Aviva dit aurevoir à sa mère, son père et sort de la maison.

Il fait chaud dehors.

C'est l'été et Aviva _____ chaud. [est / a]

Quand elle arrive à l'école elle _____ soif. [est / a]

Elle boit de l'eau et elle _____ contente. [est / a]

Lesson 3: TEST

Duration: 15 minutes

A. The teacher will distribute the Test.

1. Students will fill in the blanks of the sentence from the choices offered.

2. The test will be marked on the board and the students will correct their stencils by marking the correct answer on the side.

Name: _____

TEST

1. Aviva dit à sa mère: "Maman, j' _____ faim." [ai / suis]

2. C'est l'été et Aviva _____ chaud. [est / a]

3. Quand Carole arrive à l'école elle _____ soif. [est / a]

4. Elle boit de l'eau et elle _____ contente. [est / a]

5. Aviva _____ 7 ans et demie. [a / est]

6. Avi n'aime pas les chiens.

   Il _____ peur des chiens. [est / a]

7. C'est l'hiver et Tamara a oublié son chandail.

   Elle _____ froid. [est / a]

8. Malka arrive a la maison et elle _____ fatiguée. [a / est]

9. Louise a vu un film hier soir. Elle _____ triste. [a / est]

10. Sara a fini son devoir et maintenant elle peut voir la télévision.

    Elle _____ heureuse. [est / a]

LESSON 4: REMEDIATION

Duration: 15 minutes

A. Those students who did not attain eighty percent on the test will be taken out of the class for remediation on:

   a) the usage of the verb avoir.

   b) the usage of the verb être.

B. These students will then retake the TEST, but will only answer those items that were completed incorrectly.

C. During this time those students who attained accuracy the first time taking the test will be completing homework assignments, writing a composition, or reading a French book with the home-room teacher.

Name: _____

EXERCISE

	AVOIR*	ETRE
faim		
soif		
chaud		
froid		
peur		
contente		
fatiguée		
heureuse		
triste		

*AVOIR: expresses a need (besoin).

POST-TEST

Duration: 20 minutes.

Objectives:

The students will try their best in answering the multiple-choice questions of 'Test 2' by themselves.

Teacher's Activities:

The teacher will distribute the tests to all students.

When the students have finished the test the teacher will collect them.

Name:_____

3a 3b

TEST 2

Circle the word that best completes the following sentences.

1. Il y a beaucoup _____ pupitres dans la salle de classe.

   a. des
   b. de
   c. les
   d. le

2. C'est l'été.

   Miriam _____ chaud.

   a. et
   b. a
   c. est
   d. à

3. Avigail a perdu son crayon.

   Avigail n'a pas _____ crayon.

   a. le
   b. de
   c. un
   d. du

4. La _____ fille travaille sur son devoir.

   a. grandes
   b. grand
   c. grande
   d. grands

5. Hier, Wendy _____ arrivée à l'école en retard.

a. a
b. et
c. à
d. est

6. La fille _____ contente.

a. est
b. ont
c. à
d. a

7. Elle joue avec une _____ poupée.

a. jolie
b. jolies
c. joli
d. jolis

8. Jeanette ouvre la porte pour la classe.

_____ est gentille.

a. Il
b. Elle
c. Tu
d. Vous

9. Carole veut vendre deux _____.

a. maison grande
b. grande maison
c. maisons grandes
d. grandes maisons

10. Karen _____ froid.

a. est
b. a
c. à
d. ont

11. Victoria va au cinéma avec une amie parce qu' _____ ne veut pas être seule.

a. elle
b. il
c. ils
d. je

12. Annette et Carole sont dans la maison.

_____ sont dans la maison.

a. Elles
b. Elle
c. Il
d. Ils

13. M. Cohen est un grand-père.

Il _____ soixante ans.

a. a
b. à
c. est
d. ont

14. Julie et Sarah _____ la télévision.

a. regarde
b. regardes
c. regardent
d. regardez

15. Adam et André _____ à la maison pour prendre une balle.

a. rentre
b. rentrez
c. rentrent
d. rentrons

16. Le professeur dit à Jean, "_____".

a. assieds-toi
b. assieds
c. asseyez-vous
d. asseyons

17. Il nous reste _____ travail à faire.

a. de
b. du
c. des
d. de la

18. La voiture de Jean est _____ garage.

a. au
b. à
c. a
d. à le

19. Je vais voir le film.

Je vais _____ voir.

a. le
b. lui
c. ce
d. la

20. Je passerai le journal à Marie.

Je _____ passerai le journal.

a. la
b. de
c. le
d. lui

Lesson 1

Name _____

May I Introduce You To My Friend Tamar

1. Hello.
2. My name is Ilana.
3. I am seven and a half.
4. I would like you to meet my friend Tamar.
5. Tamar is also seven years old.
6. Tamar has brown hair.
7. Tamar has a younger brother, Avi,
8. and a big sister, Jenna.
9. Avi is three years old, and Jenna is nine years old.
10. Avi doe not like dogs.
11. Avi is scared of dogs.
12. However Jenna and Tamar like dogs a lot.

Lesson 1

Name _____

May I Introduce You To My Friend Tamar

1. Hello.
2. My name is Ilana.
3. _____ seven and a half. (I have / I am)
4. I would like you to meet my friend Tamar.
5. Tamar _____ also seven years old. (has / is)
6. Tamar _____brown hair. (has / is)
7. Tamar _____ a younger brother, Avi, (has / is)
8. and a big sister, Jenna.
9. Avi _____ three years old, and Jenna _____ nine years old. (has / is)
10. Avi does not like dogs.
11. Avi _____ scared of dogs. (has / is)
12. However Jenna and Tamar like dogs a lot.

Lesson 2

Name _____

A Day With Aviva

It is morning.

Aviva is sleeping.

Mother enters the bedroom and says,

'Aviva, it is already 7:30.'

Aviva: 'Okay, okay, I am getting up.'

Aviva washes her face, combs her hair and gets dressed.

Aviva enters the kitchen and says to her mother:

'Mother, I am hungry. What is there to eat?'

Mother: 'What would you like to eat?'

Aviva: 'I would like some toast with cheese, please.'

Aviva eats her breakfast.

Aviva says good-bye to her mother and her father and leaves her house.

It is warm outside. It is summertime and Aviva is warm.

When Aviva arrives at school she is thirsty.

She drinks some water and is happy.

Lesson 2

Name _____

A Day With Aviva

Aviva gets up at 7:30.

Aviva washes her face, combs her hair and gets dressed.

Aviva enters the kitchen and says to her mother:

'Mother, I _____hungry. (have / is)

What is there to eat?'

The mother asks, 'What would you like to eat?'

Aviva: 'I would like some toast with cheese, please.'

Aviva eats her breakfast.

Aviva says good-bye to her mother and her father and leaves her house.

It is warm outside.

It is summertime and Aviva is warm. (has / is)

When Aviva arrives at school she _____ thirsty. (has / is)

She drinks some water and _____ happy. (has / is)

Test

Name _____

1. Aviva says to her mother, 'Mother, I _____ hungry.' (am / is)
2. It is summertime and Aviva _____ warm. (is / has)
3. When Carole arrives at school she _____ thirsty. (is / has)
4. She drinks some water and she _____ happy. (is / has)
5. Aviva _____ seven and a half years old. (has / is)
6. Avi does not like dogs.

   He _____ scared of dogs. (is / has)
7. It is wintertime and Tamara has forgotten her sweater.

   She _____ cold. (is / has)
8. Malka arrives at home and she _____ tired. (has / is)
9. Louise saw a film last night. She _____ sad. (has / is)
10. Sara finished her homework and now she can watch television.

    She _____ happy. (is / has)

Remediation

Have	Is
hungry	
thirsty	
warm	
cold	
scared	
content	
tired	
happy	
sad	

* Have: expresses a need

Appendix B - Hebrew

PRE-TEST:

Duration: 20 minutes

Introduction:

The teacher will convey to the students the importance of this test, in that the students should try their best. However, in order to relieve the anxiety a 'surprise test' would elicit, it is imperative that the teacher explain to the students that the test will not count for end of the year marks.

Objectives:

The students will try their best in answering the multiple-choice questions of 'Test 1' by themselves.

Teacher's Activities:

The teacher will distribute the tests to all students.

When the students have finished the test the teacher will collect them.

sem _____

3a 3b

targil '

1. ruti roṣah sukaryah.

   _____ roṣah sukaryah.

   a. hu'
   b. hi'
   c. 'atem
   d. hen

2. ḥayah yoševet bamis'adah.

   ḥayah _____ 'ugah bamis'adah.

   a. oḥelet
   b. oḥel
   c. oḥlot
   d. oḥlim

3. 'aḥšayv ṣevyah _____ et šy'urey-habayit šelah.

   a. gomer
   b. gomeret
   c. gomrot
   d. gomrim

4. kar bahuṣ.

   a. kar eliševa
   b. kar leliševa
   c. eliševa kar
   d. eliševa lekar

5. hayom širah holeḥet leveyt-hasefer.

   'etmol širah lo' _____ leveyt-hasefer.

   a. holeḥ
   b. halḥu
   c. halaḥ
   d. halḥaḥ

6. sarah kore't _____.

   a. 'et sipur
   b. mihasipur
   c. 'et hasipur
   d. hasipur

7. bakitah šmu'el noten ledavid sefer.

   'aḥsayv _____ sefer.

   a. david
   b. david yeš
   c. yeš david
   d. yeš ledavid

8. yehudit lomedet 'ivryt.

   'etmol yehudit lo' _____.

   a. lomedet
   b. lamdah
   c. lamdu
   d. lamad

9. šošanah ohevet likro'.

ḥaval _____ sipur.

a. še'ein lah
b. šelo' lah
c. šelo' hy'
d. še'ein hy'

10. rynah veronit kor'ot sefer basifryah.

_____ kor'ot sefer basifryah.

a. hu'
b. 'atem
c. hem
d. hen

11. simḥah veṣiporah _____.

a. yošev
b. yašvah
c. yošvot
d. yošvim

12. tamar megiy'ah lebeit hasefer bely sefarim.

_____ sefarim.

a. lo' le tamar
b. lo' le tamar
c. 'ein letamar
d. 'ein tamar

13. malkah vedany'elah _____ miḥtav.

a. kotev
b. kotevet
c. kotvot
d. kotvym

LESSON 1:

Duration: 20 minutes

A. Oral Exercise:

1) The teacher reads the story "'eliŝeva kamah me'uḥeret" (with or without student participation).

2) The teacher will review with the students any new vocabulary.

3) The teacher will instruct the students to circle the following words and phrases found in the story:

(these words are to be written on the blackboard)

''eyn le....' 'yeš le...'

4) The teacher asks the students when 'eyn le....'

and yeš le...' are used: to express possession.

5) The teacher ask students to read those sentences which have ''eyn le....' or 'yeš le...' in them.

B. The teacher will distribute the photostated sheets of the adapted story "'elyŝeva' kamah m'uheret".

1) The students circle the correct answer for each blank.

2) The students will check their answers; corrections will be written on the side of the stencil.

šem _____

'elyševa' kamah m'uḥeret

1. 'ema': 'eliševa', kumi! haša'ah ševa' vaḥesy!
2. 'eliševa' kamah.
3. 'eliševa' mitraḥeṣet umitlabešet maḥer.
4. hy' yoṣe't mihabayit.
5. hy' magy'ah leveyt-hasefer.
6. hy' magy'ah leveyt-hasefer bely sakyt!
7. 'eyn le'eliševa' sakyt.
8. 'eyn le'eliševa' 'iparon.
9. 'eyn le'eliševa' sefarim.
10. 'eyn le'eliševa' šy'urey-habayit.
11. 'eyn le'eliševa' šum davar.
12. mah la'asot?
13. yeš le'eliševa' ḥaverim vaḥaverot.
14. 'aḥšayv yeš le'eliševa' 'iparon.
15. yeš le'eliševa' sefarim.
16. hakol baseder.
17. tov šyeš ḥaverim vaḥaverot!

šem _____

'elyśeva' kamah me'uḥeret

'ema': 'eliśeva', kumi! haša'ah ševa' vaḥeṣy!

'eliśeva' kamah.

'eliśeva' mitraḥeṣet umitlabešet maḥer.

hy' yoṣe't mihabayit.

hy' magy'ah leveyt-hasefer.

hy' magy'ah leveyt-hasefer bely sakyt!

1. _____ 'eliśeva' sakyt. (e'yn e'yn le____)
2. _____ 'eliśeva' 'iparon. (e'yn e'yn le____)
3. _____ 'eliśeva' sefarim. (e'yn e'yn le____)
4. _____ 'eliśeva' šy'urey-habayit. (e'yn e'yn le____)
5. _____ 'eliśeva' šum davar. (e'yn e'yn le____)

mah la'asot?

6. _____ 'eliśeva' ḥaverim vaḥaverot. (e'yn e'yn le____)
7. 'aḥšayv _____ 'eliśeva' 'iparon. (e'yn e'yn le____)
8. _____ 'eliśeva' sefarim. (e'yn e'yn le____)

hakol baseder.

10. tov š_____ ḥaverim va ḥaverot! (e'yn e'yn le____)

LESSON 2

Duration: 15 minutes

A. The teacher will distribute the story of "ḥam lesarah".

1) The teacher will read the story.

2) The teacher tells the students to circle the

'ḥam', 'ḥam le' ''eyn', ''eyn le', 'yeš̆', 'yeš̆ le', 'ly'.

B. The teacher distributes the story "ḥam lesarah" containing blanks.

1) The students fill in the blanks from the choices offered.

2) The teacher will correct the stencils on the board.

3) The students will correct the stencils without changing their original answer.

šem _____

ḥam lesarah

1. ḥam baḥuṣ.
2. ḥam lesarah.
3. sarah roṣah glidah.
4. sarah 'omeret:
5. 'ima', teny ly, bevakaša, gelidah.
6. 'ima' 'omeret: 'eyn gelidah. yeš myṣ.
7. 'at roṣah myṣ?
8. sarah 'omeret: lo' todah.
9. 'any lo' roṣah miṣ. 'any roṣah gelydah.
10. 'ima' vesarah holḥot lamakolet.
11. bamakolet sarah šo'elet:
12. yeš gelidah?
13. hamoḥer 'omer: 'eyn gelidah.
14. 'ima' vesarah holḥot lamis'adah.
15. bamis'adah sarah šo'elet: yeš gelidah?
16. hamelṣar 'oneh: ken, yeš gelidah.
17. sara 'omeret: teny ly, bevakaša gelidah.
18. hamelṣar noten lesarah gelidah.
19. sara'omeret: todah, 'ima'. 'aḥšayv yeš ly gelidah.

Lesson 3: TEST

Duration: 15 minutes

A. The teacher will distribute the Test.

1. Students will fill in the blanks of the sentence from the choices offered.
2. The test will be marked on the board and the students will correct their stencils by marking the correct answer on the side.

šem _____

ḥam leṣarah

1. _____ baḥuṣ. (ḥam ḥam le_____)
2. _____ leṣarah. (ḥam ḥam le_____)

sarah roṣah glidah.

sarah 'omeret:

'ima', teny ly, bevakaša, gelidah.

3. 'ima' 'omeret: _____ gelidah. ('eyn 'eyn le_____)
4. yeš miṣ. 'at roṣah myṣ? (yeš yeš le_____)

sarah 'omeret: lo' todah.

'ima' veṣarah holḥot lamakolet.

bamakolet sarah šo'elet:

5. yeš gelidah? (yes yeš le_____)
6. hamoḥer 'omer: ḥam baḥuṣ. kulam roṣim gelidah!

_____ gelidah. ('eyn 'eyn le_____)

'ima' veṣarah holḥot lamis'adah.

7. bamis'adah sarah šo'elet: _____ gelidah? (yeš yeš le___)
8. hamelṣar 'oneh: ken, _____gelidah. (yeš yeš le_____)

sara 'omeret: teny ly, bevakaša gelidah.

hamelṣar noten leṣarah gelidah.

9. 'ahšayv _____ sara gelidah. (yeš yeš le_____)
10. sara'omeret: 'ima'. kar ly.

LESSON 4: REMEDIATION

Duration: 15 minutes

A. Those students who did not attain eighty percent on the test will be taken out of the class for remediation on:

   a) the usage of the possessive 'ḥam', 'ḥam le' ''eyn', ''eyn le', 'yeš̆', 'yeš̆ le', 'ly'.

B. These students will then retake the TEST, but will only answer those items that were completed incorrectly.

C. During this time those students who attained accuracy the first time taking the test will be completing homework assignments, writing a composition, or reading a Hebrew book with the home-room teacher.

šem _____

Hebrew Exercise

Choose the correct statement.

1.	ḥam _____.	baḥuṣ
2.	kar _____.	le'elyševa'
3.	yeš _____ gelidah.	yeš le'elyševa'
4.	_____ gelidah baḥanut.	'eyn le'elyševa'
5.	_____ myṣ.	yeš 'eyn

POST-TEST

Duration: 20 minutes.

Objectives:

The students will try their best in answering the multiple-choice questions of 'Test 2' by themselves.

Teacher's Activities:

The teacher will distribute the tests to all students.

When the students have finished the test the teacher will collect them.

šem _____

3a 3b

targil b

1. rynah roṣah 'ugiyah.

_____ roṣah 'ugiyah.

a. 'atem
b. hen
c. hy'
d. hu'

2. batyah yoševet bakita.

batyah _____ 'ivrit.

a. lomdym
b. lomedet
c. lomed
d. lomdot

3. 'aḥšayv neḥamah _____ miḥtav.

a. kotev
b. kotvym
c. kotvot
d. kotevet

4. ḥam baḥuṣ.

a. myḥa'el ḥam
b. myḥa'el leḥam
c. ḥam lemyḥa'el
d. ḥam myḥa'el

5. 'etmol myḥael lo' _____aruḥat-boker.

   a. 'aḥlu
   b. 'oḥelet
   c. 'aḥlah
   d. 'aḥal

6. širah gomeret _____ šelah.

   a. 'avodah
   b. 'et 'avodah
   c. 'et ha'avodah
   d. ha'avodah

7. baḥadar-oḥel ary'el noten lemiryam tapuz.

   'aḥšayv _____ tapuz.

   a. miryam yeš
   b. miryam
   c. yeš lemiryam
   d. yeš miryam

8. tamar kore't sipur.

   'etmol tamar lo' _____ sipur.

   a. kore't
   b. kara'
   c. kar'u
   d. kar'ah

9. 'avygayl ohevet liḥtov

ḥaval _____ 'paron.

a. šelo' lah
b. š'eyn hi'
c. še'eyn lah
d. šelo' hi'

10. simhah vesiporah yošvot bakitah.

_____ yošvot bakitah.

a. hem
b. hen
c. hu'
d. 'atem

11. rinah veronyt _____ sefer basifryah.

a. kor'iym
b. kore't
c. kor'ot
d. kore'

12 tamar megiy'ah labayt bely šiyurey-habayt.

_____ šiyurey-habayt.

a. lo' letamar
b. 'eyn letamar
c. lo' tamar
d. 'eyn tamar

13. malkah vedany'elah _____ 'aruḥat-ṣoharayim.

a. oḥel
b. oḥlot
c. oḥelet
d. oḥlim

Name _____

Lesson 1

Elisheva Gets Up Late

1. Mommy: Elisheva, get up! It is 7:30!
2. Elisheva gets up.
3. Elisheva washes herself and dresses herself quickly.
4. She leaves the house.
5. She arrives at school.
6. She arrives at school without her school-bag!
7. Elisheva does not have a school-bag.
8. Elisheva does not have a pencil.
9. Elisheva does not any books.
10. Elisheva does not have her homework.
11. Elisheva does not have anything.
12. What is there to do?
13. Elisheva has friends.
14. Now Elisheva has a pencil.
15. Elisheva has books.
16. Everything is okay.
17. It is good to have friends!

Name _____

Lesson 1

Elisheva Gets Up Late

Mommy: Elisheva, get up! It is 7:30!

Elisheva gets up.

Elisheva washes herself and dresses herself quickly.

She leaves the house.

She arrives at school.

She arrives at school without her school-bag!

1. Elisheva _____ a school-bag. (not /does not have)
2. Elisheva _____ a pencil. (not /does not have)
3. Elisheva _____ books. (not /does not have)
4. Elisheva _____ her homework. (not /does not have)
5. Elisheva _____ anything. (not /does not have)

What is there to do?

6. Elisheva _____ friends. (there is / has)
7. Now Elisheva _____ a pencil. (there is / has)
8. Elisheva _____ books. (there is / has)

16. Everything is okay.

17. It is good _____ friends! (there is / has)

Name _____

Lesson 2

Sarah is Hot

1. It is warm outside.
2. Sarah is hot.
3. Sarah wants an ice-cream.
4. Sarah says,
5. 'Mommy, may I have an ice-cream, please?'
6. Mommy says, 'We do not have any ice-cream, but we do have juice.
7. Would you like some juice?'
8. Sarah says, 'No thank you.
9. I do not want juice. I would like some ice-cream.'
10. Mommy and Sarah go to the store.
11. In the store Sarah asks,
12. 'Is there any ice-cream?'
13. The store-keeper says, 'There is no ice-cream left.'
14. Mommy and Sarah go to the restaurant.
15. In the restaurant Sarah asks, 'Do you have any ice-cream?'
16. The waiter answers, 'Yes, we have ice-cream.'
17. Sarah says, 'May I have some ice-cream, please'.
18. The waiter gives a dish of ice-cream to Sarah.
19. Sarah says, 'Thank you Mommy. Now I have some ice-cream.'

Name _____

Test

Sarah is Hot

1. _____ outside. (warm / is warm)

2. Sarah _____. (warm / is warm)

Sarah wants an ice-cream.

Sarah says,

'Mommy, may I have an ice-cream, please?'

3. Mommy says, '_____ ice-cream, (there is no / does not have)

4. _____ juice. (there is / has)

Would you like some juice?'

Sarah says, 'No thank you.'

Mommy and Sarah go to the store.

In the store Sarah asks,

5. '_____ ice-cream?' (is there / has)

The store-keeper says, 'It is warm outside.

Everybody wants ice-cream.'

6. _____ ice-cream left.' (there is no / does not have)

Mommy and Sarah go to the restaurant.

7. In the restaurant Sarah asks, '_____ ice-cream?' (is there / has)

8. The waiter answers, 'Yes, _____ ice-cream.' (there is / has)

Sarah says, 'May I have some ice-cream, please'.

The waiter gives a dish of ice-cream to Sarah.

9. Now Sarah _____ ice-cream. (there is / has)

10. Sarah says, _____.' (there is cold / I am cold)