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THE EFFECTS OF PRE, POST, AND INTERSPERSED QUESTIONING TECHNIQUES ON THE READING RETENTION OF FOREIGN STUDENTS STUDYING ENGLISH.

THE OHIO STATE UNIVERSITY, PH.D., 1979

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THE EFFECTS OF PRE, POST, AND INTERSPERSED QUESTIONING TECHNIQUES ON THE READING RETENTION OF FOREIGN STUDENTS STUDYING ENGLISH

DISSERTATION

Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy in the Graduate School of The Ohio State University

By

Lewis Michael Evans, B.A., M.A.

* * * *

The Ohio State University

1979

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To my wife, Hannelore, who as a dissertation widow showed more patience and understanding than can be expected from one human being
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Studies in English as a Second Language

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CHAPTER I

THE PROBLEM

Introduction

Helping students to understand the meaning of printed material is one of the problems which confront the teacher in both the native and foreign languages. A collection of stories or articles is usually an integral part of the foreign language class; much time in class and at home is spent in reading. Most teachers provide their students with some form of guidance to aid them in deriving meaning from these selections; this guidance is often in the form of questions.

When the learner is given written questions to accompany a reading selection and the assignment to answer these questions as homework for an in-class discussion, he is more likely to inspect the passage carefully, searching for information and meaningful facts which are asked for by these study-guide questions, questions to which the student can refer while he is searching for the answer in the text. These study-guide questions stimulate the student to review and spend more time thinking about the subject matter of the printed material. They also can provide the teacher or student himself with comprehension checks.
Research has shown that subjects who receive questions with a selection do better on tests of retention of material from the passage than do students who have received no questions at all (Rothkopf, 1966, 1970). Both questions which appear before a reading passage (prequestions) and those which appear after the passage (postquestions) have had facilitating effects on retention of material (Frase, 1970; Rothkopf, 1966). However, research indicates that prequestions improve performance only on the specific material asked for by the questions, whereas postquestions help students retain material which was not asked for by these questions (Frase, 1970).

There is no lack of theories to explain the effect of questions and question placement. Ausubel's (1957, 1962) theory is that an advance organizer is needed by the learner to provide a framework for the knowledge which is to be gained by the reading of the passage. Ausubel's advance organizers typically are paragraphs which give a general overview of the more detailed material to come and which provide organizing elements for the learner. Prequestions could be considered a type of advance organizer which directs the student's attention to relevant material (Dwyer, 1971).

In 1965 Rothkopf began work on his mathemagenic theory; he coined the word mathemagenic from the Greek mathema, learning, and gignesthai, to be born. Rothkopf meant this word to apply to a class of responses which give birth to learning. He describes the study of mathemagenic activities as "the study of
the student's actions that are relevant to the achievement of specific instructional objectives" (Rothkopf, 1970, p. 325). Mathemagenic theory is concerned with the ongoing process of reading for information. According to Rothkopf and Bisbicos (1967) mathemagenic behaviors are dropped if they do not result in learning the skills necessary to answer the questions; mathemagenic behaviors which precede successful performance on questions are strengthened when the student realizes that he has found the answer to the question.

Rothkopf (1970) also believes that the mathemagenic theory may have different facets:

In principle, the character of mathemagenic activities with regard to each instructional objective has to be discovered for each separate instructional situation or place. However, there are general classes of situations or places and classes of objectives for which a general description of mathemagenic activities may be made. An example of such a general class of situations is that of acquiring from written instructional materials the ability to verbally describe scientific principles. (p. 328)

All research on question placement to date has involved native language reading behavior. This has lead King, Holley, and Weber (1975) to make the following statement in Volume 7 of the ACTFL Review of Foreign Language Education:

Ways to use questions in foreign language reading must be researched to see, among other things, under which conditions students comprehend better with prequestions and under which with postquestions. The unfamiliarity of the foreign language learner with both the vocabulary and the cultural background of a text may be a decisive factor in favor of prequestions. (p. 180)
Rationale

The use of questions in the classroom is a widespread everyday occurrence. For this reason many articles have been written and numerous experiments conducted in order to examine the role of questions in learning. Journals abound with reports of experiments in which various question techniques have been used. From all the research activity in this area, one might be lead to believe that definitive answers have been found and that educational psychology is well on its way to understanding how to use questions in the classroom more effectively. Although researchers believe that they have found definitive answers about what questions actually do, many feel that we are far from a clear understanding of how questions can best be used in the classroom. Indeed, Frase (1973b), a researcher who has conducted many experiments using questioning techniques, had the following to say about the application of question research to methodology:

Some readers have concluded that such (question) studies are concerned directly with instructional practice, i.e., whether questions should be placed before or after related text materials. To read the research at this level is to be deceived about their intent. For one thing, the procedure of many of the studies restrained Ss from looking back or forward in the text when they encountered a question, hence it was an open question as to whether one would get the same effects when review and forward scanning are permitted. Actually, more general issues concerning the effects of selective attention and information retrieval and rehearsal were involved, and it is these issues that provide a consistent and rational context for subsequent studies (McGaw and Grotelueschen, 1972; Quellmalz, 1972). The danger here is that a particular
methodology might take off independent of the ideas that suggest it. (p. 17)

Carver (1972) also concurs with Frase that recent research "cannot be generalized to most practical situations wherein prose materials are used for learning" (p. 93).

Traditionally, study-guide questions have been placed after a reading selection; whether this question position is the most effective and efficient for the learner of English as a second language has not been examined by current research. If we ask ourselves why we place questions where we do we are faced with three rather unscientific answers: (1) the question placement we use seems logical, (2) research in other content areas indicates facilitative effects for a certain question position, (3) we use a question placement because it is the most familiar.

Many question strategies have been outlined and suggested to help students comprehend and learn from reading passages. It would be valuable to develop a methodology of classroom questioning that would lead to the most productive reading and learning behavior. Gall (1970) proposes that new question strategies be investigated to determine whether, for the reading behaviors of the learners in question, these strategies have the impact which their proponents claim for them. This study was conducted because there is a need for the development of a methodology of question placement in foreign language education which is based on research and not on conjecture.
Purpose of the Study

This study begins to examine the problem of question placement by focusing on factual material; it is meant to be a point of departure for further research in questions and question placement in the area of foreign language learning. Specifically the study deals with the following questions:

1. Does the position of written study-guide questions for a reading passage affect the performance of a student on a test measuring how well he can remember passage material asked for by the study-guide questions?
2. Does the position of written study-guide questions for a reading passage affect the performance of a student on a test measuring how well he can remember passage material about which no study-guide questions were asked?

Overview of the Study

The subjects in this experiment were divided into three reading selection groups; each group was also divided into three question placement groups. A subject was given a reading selection with study-guide questions in the form of either prequestions, postquestions, or interspersed questions. Those in the prequestion group marked guesses to the study-guide questions and then read the article. The postquestioned subjects first read the article in its entirety and then were allowed to see the study-guide questions. The interspersed
question group was given the article in sections with the study-guide questions in the post position; they were asked to read each section and then answer the questions which immediately followed. All subjects were allowed to refer to the passage in order to search for the information needed to answer the study-guide questions. A criterion test which followed the completion of the study-guide questions measured retention of information about which questions had been asked (relevant material) and retention of information about which no questions had been asked (non-relevant material).

Limitations of the Study

There are some limitations of the study which should be kept in mind before a broad application of the results of this experiment is considered. First, subjects for the study were, in general, advanced language learners; they therefore had a great deal more skill than students in the beginning language classes of high school and college. Secondly, only the retention of factual material was examined. Thirdly, the only kind of retention examined was short-range; retention over longer periods of time might be affected differently by question position.

Definition of Terms

For the purposes of this experiment the following definitions will be used:

1. Question - a multiple-choice item with four alternatives.
2. Study-Guide Question - a question which is answered in conjunction with a reading selection and is part of a written class activity. Students are not told whether their answers to the study-guide questions are correct, but they may search for the answer in the passage.

3. Prequestion - a written question which is placed before a reading selection in which the answer occurs; the student marks a guess for the prequestion before reading the selection.

4. Postquestion - a written question which is placed after the reading selection in which the answer occurs; the student sees the postquestion only after the selection has been read in its entirety.

5. Interspersed Question - a written question which is placed after a segment of approximately ten sentences of a reading passage and which is answered by the student after he has read the segment. The answer to the interspersed question can be found in that preceding segment.

6. Factual Material - different kinds of information from a reading passage: (1) specifics such as names, dates or places, (2) the meaning of new terminology used by the author, (3) trends or consequences described by the author, (4) opinions of the author of the passage, (5) occurrences described by the author.
7. Reading Retention - a score on a test which consists of multiple-choice questions testing the short-term retention of factual material from a reading passage.

8. Retention Question - a question which tests how well a subject can remember a certain fact from a reading selection to which the student can no longer refer.

9. Relevant Material - those facts from a reading selection about which questions have been asked. For example, if the reading selection contained the sentence: "George Washington, the first president of the United States, was born on a farm in Virginia." and this were followed by the question: "Who was the first president of the United States?" then the answer, that George Washington was the first president of the United States, would be relevant material.

10. Non-Relevant Material - those facts from a reading selection about which no questions have been asked. From the above example a question such as: "Where was George Washington born?" would call for non-relevant material since a question had not been asked about this fact. Relevant and non-relevant facts are not related: that is, knowing a relevant fact will not help in answering a question requiring a non-relevant fact as an answer.

12. **Criterion-Referenced Test** - a test which measures a subject's performance against a pre-established absolute standard of quality.

**Organization of the Dissertation**

The study is divided into five main chapters; this introductory chapter, which includes the rationale, scope and limitations of the study, is followed by a review of experiments and articles pertaining to question placement research. Chapter three describes the procedures used in the experiment. Results of the data analysis are presented in chapter four; chapter five discusses these findings and their implications.
CHAPTER II

REVIEW OF RELATED LITERATURE

Introduction

All information to date about the role of question placement techniques has come from research dealing with subjects who are being questioned about material presented in their own language. Therefore, the design and development of this study has been based on native language questioning research. The review of literature focuses on the following variables which influence the effects of questions in a learning situation: (1) position of question in relation to text, (2) contiguity of questions and relevant content, (3) feedback, (4) response mode, (5) cognitive level of the question. At the end of the review a number of studies which have examined the interactions of these variables will be described in order to make clear the types of procedures which have commonly been used in the past and to examine the conclusions that researchers have drawn from their experiments.

Position of Questions in Relation to Text

PREQUESTIONS - The effects of prequestions on recall of prose passage material is not clear in view of the results of experiments to date. It is generally believed that questions which come before a passage and which are relevant to that
passage: (1) facilitate recall of the specific relevant material and (2) significantly impede recall of non-relevant material when compared to other question placements (Rothkopf, 1966; Prase, 1967b, 1968e). Washburne (1929) found that pre-questioning gives optimal results; he attributed the facilitation to the mind-set created by the questions. Feiman (1974) reported higher retention for prequestions than for postquestions. Berlyne (1966) is of the opinion that prequestioning arouses curiosity and directs attention; his data indicate enhanced retention of relevant factual statements when pre-questions are used.

Other researchers have proposed that there are interactions between prequestioning and other variables; this interaction is said to alter the effects of the prequestions. Rickards (1976) reported that conceptual prequestioning produced higher recall than conceptual postquestioning and that factual postquestioning effected better retention than did factual prequestioning.

Peeck (1970) examined the effects of test-like prequestions on the long-term retention of relevant and non-relevant material. Seventy-two college students were given a 3,000-word reading selection. Group 1 received a list of prequestions; Group 2 was given the same list of questions, but were instructed to guess at the answers to them. Group 3 received no questions, but got four extra minutes of reading time; thus groups 1, 2, and 3 spent the same amount of time on the materials.
Group 4 was given no questions and no extra time; these students had only the amount of time to read that the prequestioned groups had. Peeck reported significantly better 7-day retention of relevant material for the questioned groups, but these groups also showed an inferior retention of non-relevant material compared to the group given extra reading time. Peeck speculated that "regarding the total amount of knowledge acquired, time spent on prequestions might just as profitably be used for simply extending the reading time of the actual reading material" (p. 45).

Many researchers have observed negative or negligible effects of prequestioning techniques. Hayes (1973) found no differences among treatment groups exposed to different levels of prequestions. Strollo (1972), Glaser (1972), and Dwyer (1971) all found that prequestions neither impeded nor facilitated retention significantly when compared with control groups which received no questions. Dwyer concluded that prequestions are not appropriate for all kinds of learning objectives. Gustafson and Toole (1970) took a stronger stand against prequestions when they concluded from their data that any pretest containing specific detailed questions is of little conceptual help to the learner and suggested that a highly general preview or advance organizer might be more appropriate.

POSTQUESTIONS - When compared with information on prequestioning, data collected on postquestioning techniques seem to give a much clearer view of the effects of placing questions
after reading passages. The great majority of researchers have reported that groups which had received postquestions scored highest on criterion tests of recall. Among the researchers reporting more positive results for postquestions are: Frase, 1967a, 1967b, 1968a, 1968b, 1968c, 1968d; Rothkopf and Bisbicos, 1968; Bruning, 1968; Rothkopf and Bloom, 1970; Frase, Patrick, and Schumer, 1970; Eischens, Gaite and Kumar, 1972; Rothkopf, 1972; Santora, 1972; McGaw and Grote-lueschen, 1972; Hillman, 1972; Boyd, 1973; Felker, 1973; Felker and Dapra, 1975; and Snowman and Cunningham, 1975. A number of these experimenters also reported that postquestions not only facilitated recall of relevant material but also promoted retention of non-relevant material. The data from some researchers, for example Swenson and Kulhavy (1973) and Gustafson and Toole (1970), do not support the latter finding of increased learning of non-relevant material.

In a review of research on questioning, Anderson and Biddle (1975) included a summary of results of a number of question placement studies; their findings can be found in Table 1. They concluded that "it is apparent that adjunct questions presented after the sections of prose to which they are related consistently facilitate performance on repeated criterion test items." They also stated that if each experiment were considered an independent observation, "a sign test shows that adjunct questions after sections of text significantly more frequently have a positive than negative
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effect on new test items as well, \( z = 2.70, p < .01 \) (p.92).

The positive effects of the postquestions have been explained by various theories. Rothkopf and Billington (1974) proposed that they can be explained in terms of a strengthening through review of "evoked memory representations directly related to the question" (p.669). Frase (1968d) also theorized that "this facilitation reflects a skill which is acquired during the reading task" and that "adjunct questions act to reinforce and maintain previously learned problem solving behaviors which are induced by the nature of the task" (p. 187).

Bull (1973) summarized from a mathemagenic point of view the sequence of events which occur when postquestions are used as: "a general attentive response to the text, reading of the specific statements, reading the questions, emitting an answer to the questions, praise for the correct response" (p. 83). Thus this process entails a reward of satisfaction if the answer to the question can be given. That is, the postquestion is a confirmation of the correctness of the general problem solving skill which is related to the overall task of understanding the passage.

Contiguity of Questions and Related Content

The degree of adjacency of the question and the material it refers to is considered important by many researchers. Frase (1968d) believes that if questions are used they should be used
frequently; he reports an optimum interval of twenty lines. Rothkopf (1965) has asserted that frequent testing may be "an important environmental control of mathemagenic behaviors" and cites findings of facilitation of learning through inter­spersing questions in reading passages; the data from Bruning's experiment (1968) in which the effects of inserted statements and inserted questions were compared support this hypothesis.

The proponents of the mathemagenic theory encourage frequent questioning. They believe that reading behaviors which lead to successful answering of the question will be strengthened; therefore it would follow that increasing the exposure to experimental questions would increase the possibility that successful mathemagenic behaviors would evolve. These researchers hypothesize that test-like interspersed questions control learning activities in that they shape the learners's attention, information processing and/or learning set.

Research seems to support these theories. Rothkopf and Bisbicos (1967) reported that the effects of facilitation of recall of information were greater toward the end of the text and observed that these effects were selective in that they were greatest for items in the criterion test which asked for relevant material. In a later study, Rothkopf and Billington (1974) concluded that interspersing questions enhances the recall of other material which is related to the topic. They propose that while the subject is searching his memory in
order to answer the question, he "reviews and strengthens previously established related memory representations or makes them in other ways more accessible in subsequent tests" (p. 678).

Examining the generalizability of the findings of studies using mature subjects to a younger population, Swenson and Kulhavy (1973) used multiple-choice test-like questions placed either before or after passages of 1, 5, 10, or 20 paragraphs. They reported that fifth and sixth-grade children learned relevant items consistently better but theorized that children may tend to disregard non-relevant material when interspersed questions are provided. They seemed to retain more material when questions occurred every five paragraphs.

In another study dealing with children, Wadsworth and Flagg (1971) conducted an experiment with two groups of sixth-graders, one of which received interspersed questions and another of which were given none. They found significant differences in test scores for non-relevant material. They suggested that studies which had been carried out with adult subjects be replicated using children in order to see whether there is an interaction of age and other variables.

Although many researchers have observed facilitative effects of interspersed questions (Rothkopf, 1966; Rothkopf and Bisbicos, 1967; Frase, 1967a, 1967b, 1968a; Feller, 1973), others have reported no difference among experimental groups (Strollo, 1972; Helvoigt, 1974; Robinson, 1975). One
explanation of the lack of congruity of results is that other factors may interact with the interspersion of questions and cause different outcomes. Pearce (1973) felt that students did not really know how to use these interspersed questions and conducted an experiment in which one group of sixth-graders was trained in the use of interspersed questions; a second group did not receive this training. Results of the study indicated that the group which was trained to use interspersed questions performed significantly better ($p < .005$) than the group not specifically trained in their use. Kuehls (1976) observed that interspersing made no difference for students of high level of achievement and ability, but did facilitate learning better for those students of average or below average achievement and ability.

In summarizing research on the effects of interspersing questions, Anderson and Biddle (1975) concluded that "the closer the question to the information it asks about, the higher the performance when that question is repeated later, on the criterion test", but that it was not to be overlooked that these questions "can have pronounced effects on repeated test items even when batched after lengthy passages" (p. 95). They also reported that the effects of interspersing questions had not been clearly demonstrated for non-relevant items.

Feedback

In some question placement studies the role of feedback on answers to questions was examined. Feedback, or information
about the correctness of a subject's response to a question, has been given in three different ways: (1) after the subject has responded, the correct answer is presented to him, (2) the student is allowed to find the answer to the question in the text after the question has been taken away, (3) the student refers to the question while he is searching for information in the text.

Frase (1970) comments that in most question placement studies feedback as in (1) and (2) was not given with the adjunct questions; Anderson and Biddle (1975) reported that feedback had been a variable in less than one-third of adjunct question studies.

Frase (1967b) hypothesized that if no feedback is given with a prequestion, the reading selection which follows should provide it; this should result in better retention test scores. Rothkopf's (1966) data do not confirm this assumption; his findings did, however, point toward a possibility of interaction between feedback and position of questions, although this relationship was not clear. In discussing the relationship between prequestions and displayed feedback, Frase (1967b) proposed that the reading passage may indeed interfere with the retention of the answers to the questions; that is, while the subject is trying to retain the answers to the questions the reading material is distracting him. Frase did conclude from his findings that feedback on postquestions will improve scores for relevant material on criterion tests; feedback appears to have no significant effect on non-relevant items, however.
Response Mode

The response mode, or way in which a subject answers a question, has typically followed either multiple-choice or short-answer/completion formats. Frase (1968a) hypothesized that answering the more difficult type of item, the short-answer fill-in, would result in greater retention than would responding to the multiple-choice one. Battoclette (1971) felt that the alternatives of the multiple-choice questions would be hints or aids to the answer to the questions; therefore answering multiple-choice questions would facilitate learning better in that these hints encourage the student to think about different aspects of the text. Neither researcher found any differences between the two types of questions when reading comprehension was examined.

Based on their review of question research, Anderson and Biddle (1975) drew the following conclusions from studies which dealt with response mode:

A straightforward interpretation of the facts about response mode is that adjunct questions primarily act on the retrievability of information, rather than on decisions about information once retrieved. Under this interpretation it is the response mode of the criterion test that is important. Another possibility is that short-answer and multiple-choice questions make different processing demands when inserted in text, thereby differentially affecting study activities. Were this the case it would be the response mode of the adjunct questions which was important. At the present time, there is no way to choose between these explanations since in every study completed to date the mode of the test has paralleled the mode of the adjunct questions. (p. 98)
However, Yasutake (1974) in an experiment not reviewed by Anderson and Biddle suggested that "the effectiveness of response mode is dependent on the learner characteristics, question difficulty and nature of the criterion measures" (p. 20). From the results of his study he concluded that "if test performance desired is that of recall rather than recognition of relevant material, constructed response adjunct questions appear to be superior to multiple-choice questions" (p. 78).

Cognitive Level of Questions

In recent years many systems for classifying classroom questions have been devised (Hunkins, 1976; Sanders, 1966; Tinsley, 1968; Cunningham, 1971). Some of these systems are specialized to describe questions in specific content areas; most are based on Bloom's Taxonomy of Educational Objectives (Bloom, 1956). Bloom divided classroom objectives into six major categories: knowledge, comprehension, application, analysis, synthesis, and evaluation.

Bloom's knowledge level involves the recall of specific facts or information and emphasized the psychological processes of remembering. Bloom explains, "To use an analogy, if one thinks of the mind as a file, the problem in a knowledge test situation is that of finding in the problem or task the appropriate signals, cues, and clues which will most effectively bring out whatever knowledge is filed or stored" (p. 201). A brief
outline of Bloom's knowledge classification is as follows:

1.00 Knowledge
  1.10 Knowledge of specifics
    1.11 Knowledge of terminology
    1.12 Knowledge of specific facts
  1.20 Knowledge of ways and means of dealing with specifics
    1.21 Knowledge of conventions
    1.22 Knowledge of trends and sequences
    1.23 Knowledge of classifications and categories
    1.24 Knowledge of criteria
    1.25 Knowledge of methodology
  1.30 Knowledge of the universals and abstractions in a field
    1.31 Knowledge of principles and generalizations
    1.32 Knowledge of theories and structures

The comprehension category includes the kind of understanding in which the student knows what is being communicated and can make use of the material without relating it to other material or seeing its wider implications. Application refers to the use of abstractions in a concrete situation; breaking material down into its constituent elements falls into the category of analysis. Synthesis entails putting a number of elements into a pattern or structure which was not clearly there before. Finally, evaluation is the process of judging the value of materials and methods for a given purpose.

Perhaps the most useful system of question classification which can apply to foreign language instruction is that designed by Cunningham (1971). The system is based on Bloom's Taxonomy but focusses on the number of responses possible for
a given question. The main division in this taxonomy is between broad and narrow questions. Narrow questions have a fixed number of right answers; they are used for collecting information, verifying ideas, taking comprehension checks, and reviewing previously studied material. Broad questions have a variety of acceptable responses; the teacher can not be sure what responses will be given and must evaluate the usually longer, more thoughtful answers for correctness. Broad questions stimulate students to explore the relationships, implications, and value of the subject matter more deeply.

Narrow questions are further divided into cognitive memory and convergent questions. Cognitive memory questions encompass the lowest level of thinking -- reproduction of facts, definitions, and other remembered information. Convergent questions require the student to put facts together and construct an answer; they involve stating relationships, explaining relationships or concepts, and making comparisons and contrasts.

Divergent and evaluative questions make up the broad question category. Divergent questions stimulate students to predict, hypothesize, or infer. Elements are organized into new patterns that were not clearly recognized before; these questions are thought-provoking and encourage creativity and imagination. Evaluative questions let the student judge, value, justify a choice or defend a position. They require the student to organize his knowledge, formulate an opinion,
and take a self-selected position; they involve the use of
cognitive operations from all three of the other levels.
Figure 1 represents a diagram of the relationships among
the different question types.

Previous experiences in the classroom and the expecta-
tions of the teacher often determine whether or not a certain
question is broad or narrow. According to Woodruff et al.
(1979) whatever the question is, it should be clear and pre-
cise so that the listener has no doubt about the kind of
answer required. With an example from the elementary class-
room they illustrate what can happen when vague questions
are posed:

A seemingly simple, but ambiguous question such as:

"What are some things we can say about the earth?"

could confuse the child, since it can be perceived at
any level of inquiry:

1. Cognitive-Memory -- the child relates the
question to what he has read in his book.
   "The earth is round."

2. Convergent -- the child combines facts that
he already knows or has read in his book.
   "The third planet from the sun."
   "A planet that is bigger than Mars and
   smaller than Jupiter."

3. Divergent -- the child interprets and responds
to the question in a way which is unique to
his own thought processes and past experiences.
   "The earth is bumpy."
   "Plants grow on it."

4. Evaluative -- the child interprets and responds
within the framework of his own value system.
FIGURE 1. Cunningham's Classification of Classroom Questions.
"It can be good to people when there's sunshine and flowers and bad when there's earthquakes and blizzards."

Some researchers have investigated the effects of the type or nature of the questions asked; that is, they have looked at the kind of cognitive processing that the adjunct question requires and the influence that it has on learning. Using Bloom's Taxonomy (1956) to classify the experimental questions, Hunkins (1968) found that students who responded mainly to higher level questions which involved analysis and evaluation scored significantly higher on a criterion test measuring social studies achievement than did students who received mainly knowledge level questions.

Berlyne (1965) has proposed that attention to specific material in a passage is a negative process in that it entails rejection of information; that is, when the student's attention is directed toward information, he ignores other information in the passage. If the question is very specific, the student might be able to ignore all but one word or sentence in the passage in order to answer the question. Berlyne felt that the higher the question level was, the less information the student would be able to reject.

Frase (1968e) set out to test this theory and although he reported that retention was significantly lower with general prequestions, a second experiment offered more information about how students perceive these questions. He examined the effects of prequestions which varied in amount of material to which they related; that is, how much material was needed
in order to answer the question. Subjects were given very specific questions (e.g., When was John born?), questions that called for a comparison (e.g., Who is older, Jim or John?) or general questions (e.g., When were the men in the following paragraph born?). Frase asked subjects to underline the amount of text material needed to answer these questions. He found that the number of words perceived to be required to answer the question increased according to the cognitive level of the question: specific questions needed the fewest words; for comparative questions more words were necessary; general questions, however, required the greatest number of words.

Numerous researchers have reported observing that answering higher level questions promotes better comprehension (Boone, 1971; Tyler, 1972; Buggey, 1972; Ryan, 1973; Felker, 1973; Felker and Dapra, 1974; Belch, 1974; Yost, 1970). These reports of more positive effects of higher level questions were not confirmed by some other researchers (Hearn, 1969; Wunderlich, 1972; Hesse, 1974; Markle, 1974; Helvoigt, 1974).

It may be possible that researchers are not measuring all the effects of higher-level questions or that there are interactions between certain variables and question level. Willems (1970) found no significant difference among question level groups, but he did report that higher-level questions result in higher cognitive questions behavior on the part of the students when students asked questions in class. Shavelson and others (1972) indicated that question level may interact
with student verbal ability; he observed that students who had scored low on a test of verbal ability were aided by higher-level questions; these students scored at levels comparable to those of students of high verbal ability in low-level question treatment groups.

Anderson and Biddle (1975) conclude from present question level research that "adjunct questions can do more than increase the accuracy with which people are able to repeat strings of words" (p.103). An example of this type of research can be found in an experiment by Watts and Anderson (1971). They used reading material which presented some basic concepts of psychology, such as "displacement," or transference of libidinal energy from the original object to a person or idea that is more acceptable to the ego. The example which illustrated this principle was: John failed to make the basketball squad because he was too small, so he practiced hard to win a cheerleader's position. In conjunction with this example there was a multiple-choice treatment question which was to check the subjects' understanding of this principle; from the four examples of psychological principles given in the item, the subject was to pick the one which best represented "displacement." In this case they were to mark the answer: When punished for sucking his thumb, Timmy stopped that habit but spent hours chewing gum given him by his grandmother.
Watts and Anderson found that subjects who received questions that required them to apply a principle to new examples performed significantly better on the posttest than did groups which were given no questions, questions for which the answer was the same example as in the text, or questions which required the student to identify the psychologist connected with the principle. Anderson and Biddle conclude that present question-level research indicates that "adjunct questions which entail paraphrase and application of principles and concepts to new situations may be especially facilitative, particularly when the criterion test makes similar demands" (p. 103).

Question Experiments Dealing with Interaction of Variables

Many studies in questioning research have examined more than one of the previously discussed areas; the studies themselves and their conclusions are most easily understood when treated separately. The following experiments are considered relevant to the present study and can be divided into two groups: mathemagenic studies and experiments using study-guide questions. Mathemagenic research typically involves the use of test-like questions; students read a section of the article, turn a page, and are confronted by questions. They are not allowed to search for the information in the passage. Experiments using study-guide questions allow students to look for the answers to the experimental questions in the text.
Mathemagenic Studies

In 1966 Rothkopf developed an experimental procedure that has been replicated and modified by numerous other researchers. He attempted to determine the effects of adjunct, test-like question upon reading retention and to examine the effect of the location of the questions. The 159 subjects, all college students, were asked to read a 5200-word selection from the book, *The Sea Around Us*, by Rachel Carson. The passage was divided into seven sections of approximately 260 words each. A pool of completion-type questions was constructed; from this pool, two were chosen from each section to be the relevant questions. Two remaining questions from each section were then designated as the non-relevant ones. Two tests were then created: one measuring relevant material, the other measuring non-relevant material. Rothkopf divided the subjects into the following groups:

SBA - (Shortly Before with Answers) Relevant adjunct questions were given shortly before sections. Feedback was also given.

SB - (Shortly Before) Relevant adjunct questions were given shortly before the sections. Feedback was not provided.

LBA - (Long Before with Answers) All relevant adjunct questions were presented after sections; feedback was provided.

SAA - (Shortly After with Answers) Relevant adjunct
questions were presented after sections; feedback was provided.

SA - (Shortly After) Relevant questions were given after each section. No feedback was given.

Control - Subjects were given general directions to read carefully since they would be tested on the material later.

DRG - (Direction Reference Group) This group was given the same directions as the Control Group; however, students were told that the passage contained much detailed factual information and that the text should be read carefully and slowly.

Rothkopf reported that only the mean scores of the SA group and the DRG group were significantly higher than that of the control group for the test of non-relevant material. Although the SAA group did score higher on this test, the difference was not significant. Subjects who had been given prequestions performed at approximately the same level as the control group.

On the test of relevant material, all groups receiving questions performed significantly better than the control group. Those groups which had been given feedback scored significantly higher on this test.

Rothkopf concluded from the results that; (1) questions asked after the subject has read the passage facilitate both relevant and non-relevant learning, (2) questions asked before...
the passage affect the performance on test questions asking for relevant material, (3) that relevant learning is most marked when the subjects were given feedback.

Frase (1967b) studied the effects of question position (before or after reading passages), length of passage (10, 20, or 40 lines long), and feedback (telling or not telling his 72 college subjects whether their answers to adjunct questions were correct or not). The reading material was a 2000-word prose selection about the life of William James; the test-like questions consisted of multiple-choice items asking for factual material. He found that subjects did best on the retention test when the passage was divided into 20-line sections, but that longer passages tended to improve the non-relevant test scores. Groups which were given feedback on the treatment questions performed significantly better on the retention test than did those which were given none. Questions placed after segments facilitated retention of non-relevant material more than did prequestions. He also found that the position of the questions did not make much difference if knowledge of results was provided; it was when feedback was withheld that the effect of the position of questions was the strongest.

Rothkopf and Bisbicos (1967) hypothesized that the use of interspersed questions in reading passages results in the evolution of learning behaviors which facilitate learning of
the material in the passage. They presented 252 high school subjects with a 36-page passage of 9000 words from *The Sea Around Us.* (This was a longer version of an earlier experimental text.) Two questions were asked per each three-page zone of text. Questions differed in position (before or after sections) and required response [(a) a quantitative word, (b) a proper name, (c) a technical term, (d) a common English word]. Each treatment group was given the same 48-item criterion test after reading the selection.

They reported that groups with questions after section of the reading passage retained more non-relevant material; prequestioned groups performed no better than did no-question groups on both relevant and non-relevant items. Further investigation of the classification of test items showed that questions requiring a name or quantity (date or measure) did more to increase learning of non-relevant material than did questions requiring common or non-technical responses. They also found that subjects tended to do better on test questions from the second half of the passage than from the first half. They theorized that the questions in the first half of the passage had shaped the reader's attention; that is, the facilitative effects which were due to the questions increase with increased exposure to these questions.

Bruning (1968) investigated the effects of interspersed test-like questions compared with an interspersed review
consisting of declarative sentences. He wanted to determine whether changing the form of the review item made any difference in its effects. After each section of the reading selection there was a review page with either questions or review statements. The 69 college students were divided into four groups: (1) students who received interspersed statements which were asked for later on a criterion test, (2) students who received interspersed questions asking for the same facts as in Group 1, (3) students who received interspersed statements which were not asked for on the criterion test, (4) students who received interspersed questions which asked for facts which were not asked for on the criterion test. Therefore Groups 1 and 2 were tested on relevant material; Groups 3 and 4 were tested on non-relevant material. Students were told if their answers to interspersed questions were correct.

Bruning reported that for both relevant and non-relevant groups the subjects who had received questions did significantly better on the criterion test. These results give support to the theory that test-like questions facilitate learning and retention of material, even when questions asked are not relevant to the criterion test questions.

Frase (1968a) used a factorial design to study the effect of question location (pre or post), question pacing (after 10, 20, 40, or 50 sentences), location of factual material in the segment (first part or second part), question mode (constructed
response or multiple-choice), and item type (relevant or non-relevant). From the data on 128 college students, Frase reported that retention was highest when questions were placed after the paragraphs. Increasing the frequency of postquestions increased retention; however, the increased frequency of prequestions decreased retention scores. Frequent questions of any kind reduced non-relevant learning. Frase concluded that "frequency postquestioning either shaped or elicited appropriate reading skills while frequent prequestions interfered with prose structure" (p. 244). There was no effect for question mode. It was also found that non-relevant material which followed relevant material was retained better than non-relevant material which preceded relevant material.

In order to examine the direction of the effects of test-like questions, that is, whether these questions affect more greatly retention of material they precede or the material they follow, McGaw and Grotelueschen (1972) designed a study in which 140 paid volunteers took part. Questions were inserted at intervals in prose material and subjects were measured on retention of both relevant and non-relevant material. The distance between the answer in the reading passage and the inserted question was also examined. The researchers reported results which indicated that the initial effect of inserted questions may be forward; that is, they affect
material yet to be read. These findings, which support Rothkopf's mathemagenic theory are congruent with Frase's findings (1968a). McGaw and Grotelueschen concluded that "in addition to a shaping effect, the inserted questions serve also to control general attentional behaviors" (p. 588).

Boker (1974) studied the effect of interspersed test-like questions placed before or after sections of a reading passage. Subjects were tested immediately after reading the passage and then again after seven days. He found that groups which received questions performed significantly better than groups which received no questions; this significance held true for both immediate and seven-day delayed retention measures. Boker's results also supported previous findings that interspersed pre- and postquestions equally facilitated retention of relevant factual content but that only postquestions facilitated retention of non-relevant factual material. The effects of both types of questions were constant over seven days.

Experiments Using Study-Guide Questions

In 1929 Washburne conducted an experiment using study-guide questions placed at different positions in relation to text: (1) all questions at the beginning of the passage, (2) all questions at the end of the passage, (3) questions interspersed at the beginning of appropriate paragraphs, (4) questions interspersed at the end of appropriate paragraphs, and (5) no questions at all. The 3000-word text
dealing with the history of Florence was unfamiliar to the junior high school students involved in the study. Students were allowed to read questions and search for the answers in the text during the 25 minutes allotted for the reading. The study-guide questions included both factual questions and questions calling for generalizations.

From the results of the criterion test administered shortly after the reading, Washburne concluded:

1. Inclusion of questions in a reading activity results in facilitation of recall and understanding of the story.

2. Placement of questions has a significant effect. Questions occurring at the beginning of a story had the greatest facilitating effect on retention of relevant material, while causing no loss of retention of non-relevant material.

3. Interspersing questions, either before paragraphs or after them results in a loss of recall of facts not covered by these questions. This loss is proportional to the gain in the recall of facts covered by the questions.

4. Interspersing questions results in a marked gain in ability to make generalizations about the story with no loss of understanding of the parts not covered by the higher level questions.
5. For overall comprehension the worst placement of questions is at the end of the story. Postquestions facilitate the recall of relevant material and cause a proportional loss in non-relevant material.

6. Prequestions are superior to interspersed questions and prequestions which require generalizations facilitate retention of facts not covered by these questions.

7. The more intelligent children were more greatly affected by the placement of questions than were the less intelligent ones; however prequestions were significantly better for both.

This study has fallen into disrepute with many researchers. A reanalysis of data by Carver (1972) using percentage scores on the criterion tests and more modern statistical techniques lead him to conclude that the interpretation which should be made from Washburne's data is that "the use of questions in connection with learning from prose materials seems to have a small facilitative effect upon the ability to answer these same questions later, but the lack of a facilitative effect upon the general retention of the prose material makes the use of treatment questions highly dubious" (p. 97). Washburne's study is still, however, an often quoted study when support of prequestions is needed by a researcher.
Using a lengthy 23,000-word text which gave a non-technical introduction to computers, Gustafson and Toole (1970) examined the effects of position of questions and degree of supervision of students. There were 58 subjects who were paid a sum contingent on posttest performance. The researchers used a 2 x 2 x 2 factorial design in which the variables were: (1) pretest versus no pretest, (2) supervised study versus independent study, and (3) study-guide questions versus no study-guide questions after every two or three pages of text. Feedback was supplied in that each question was indexed to the page where the answer could be found.

An examination of posttest scores showed no interaction or main effects. Gustafson and Toole attributed the lack of agreement with other studies to the fact that subjects were allowed to search for the information needed to answer the study-guide questions:

... when he (the subject) knows he can reread the test and review the questions as often as he likes -- which, after all, is the normal process in preparing for an examination -- there is no longer a good reason for the student to concentrate any harder on the text than he would if not aided by adjunct questions. Hence, we believe, the adjunct questions lose their potency except as emphasizers of the specific information with which they deal. By the same token, it seems a likely surmise that the placement of the questions also loses its importance under "real-life" study conditions. A guess is that the adjunct questions would have had the same impact in the present experiment no matter where they occurred in the text. (p. 57)

Although the researchers have raised some valid points, it would be reasonable to question their findings on statistical
grounds: if there is indeed a difference which arises from the various treatments it would be very difficult to isolate clearly when each cell in the factorial design contained only five subjects.

Being of the opinion that improvement in instructional techniques was most necessary in reading material that students feel is boring and difficult, Hiller (1974) chose a 1700-word passage dealing with the history, character and philosophy of modern mathematics. Sentences in the text were long (an average of 22 words per independent clause) and vocabulary and syntax were considered difficult. From this basic text, two other versions were written, one of moderately difficult readability and the other of average readability. Four different treatments were administered for each of the three text versions: (1) relatively easy inserted study-guide postquestions, (2) relatively difficult inserted study-guide postquestions, (3) passive reading (students were instructed to read and do nothing else), (4) idiosyncratic study (students were allowed, if they desired, to underline, take notes, highlight or outline). All questions asked for factual material.

Hiller reported that inserted study-guide questions did not facilitate retention of non-relevant material and difficult questions appeared to depress immediate retention. On a test of retention given two weeks later, there were no significant differences among the treatment groups. Retention scores were significantly related to anxiety and self-confidence on the two more difficult versions, but not on the easy one.
CHAPTER III

DESIGN AND PROCEDURES

Population

The population for the experiment consists of the students of English as a second language at The Ohio State University. Using class lists, the researcher randomly divided the students into nine equal treatment groups; measures were taken on 243 of the students.

For a pilot study an intact class of twenty upper level ESL students from Ohio Dominican College was given the experimental treatments. This has been considered a suitable population for a pilot study since many of the students from the college later become a part of the ESL program at The Ohio State University.

Design

For separate one-way analyses of variance, a one-factor design was used to measure the effect of question placement on two dependent variables: non-relevant and relevant test scores. It was felt that too many question placement studies had made global statements about the effects of question placement on the basis of the results of comprehension tests from one reading passage. To avoid this error the experimental
question placement treatments were given three times, using different reading passages by the same author; this procedure allows an observation of the consistency of the placement effects and permits the conclusions of the study to be based on more than one kind of reading selection. The independent variable consisted of three types of question placement: pre-questions, postquestions, and interspersed questions. Subjects were randomly assigned to a treatment group. After subjects had read the passage and had completed the study-guide questions, they were given a Reading Retention Test to measure the effect of question placement on short-range retention of factual material. The scores from the retention tests for each of the three reading selections were subjected to two analyses of variance: one for relevant material and the other for non-relevant material.

Instrumentation

Three articles of approximately 1250 words each were selected from The USA -- Customs and Institutions by Ethyl and Martin Tiersky. This is a reader on an intermediate level which would be appropriate for the ESL program at OSU. These selections provide interesting material pertaining to the American culture; the students had little or no previous knowledge of the topics covered in these readings.

The experimenter divided the text into intervals of approximately 300 words. Neither paragraphs nor short sections with titles were divided by the intervals; that is, if the
three-hundredth word fell in the middle of a paragraph or short section, that paragraph or short section was either included in or excluded from the interval.

Twenty multiple-choice questions with four alternatives per question were generated by the experimenter; for each segment there was an even number of questions. Per segment there were no less than four questions and not more than six. A panel of three experienced ESL teachers from the OSU program was given the segmented text with the appropriate questions placed after each segment. They were asked to divide the questions after the segment into two equal groups of relevant and non-relevant material; thus there were a group of ten non-relevant questions and a group of ten relevant questions for each selection. Relevant items were those considered most important by the teachers; in other words the most important factual questions from each group of questions were chosen as relevant questions. Non-relevant questions were the remaining ones.

Judges were requested to comment on the clarity and appropriateness of each question. They were also asked to decide what words or phrases from the selections appeared too difficult for a reading without the aid of a dictionary. They decided whether these vocabulary items should be glossed or whether they should be deleted and paraphrased.

For each item chosen as relevant by the panel the experimenter wrote an alternative form. The order of the answers
was rearranged and both stem and alternatives were paraphrased if possible. Original relevant items and their alternate forms were submitted to the panel so that they could judge the equivalence of the items. From each pair of items one was selected randomly for the retention test; the other became a study-guide question.

To ensure that relevant and non-relevant questions had no relationship to each other and that these items could not be answered without having read the passage, a group of twenty ESL students was asked to take the Reading Retention Tests without first having read the articles. The difficulty of each item was checked to see that it approached 0.75, the value which would be expected if students had been guessing at the answers. Any item having a difficulty of under 0.50 was rewritten or discarded.

The panel of judges was also asked to determine criterion scores for the retention tests. These criterion scores were to reflect the minimal acceptable performances for the relevant and non-relevant tests. The judges came to the conclusion that 6 correct responses on the relevant retention test and 4 correct answers for the non-relevant test would be the lowest acceptable scores. These criteria were used in calculating the Livingston (1972) reliabilities of the tests.

Since the materials used were of appropriate difficulty for the students it is to be expected that the variability of the test scores would be low and that the distribution of test
scores would be negatively skewed; in such a situation norm-referenced reliabilities such as the Kuder-Richardson-20 have little meaning. From assumptions of classical test theory Livingston devised a formula for computing reliabilities of criterion referenced tests. His reliability coefficient is based on deviations of the scores from the criterion score rather than from the mean. Livingston explains, "The coefficient is shown to have several of the important properties of the conventional norm-referenced reliability coefficient, including its interpretation as a ratio of variances and as a correlation between parallel forms, its relationship to test length, its estimation from a single form of a test, and its use in correcting for attenuation due to measurement error" (p. 13). The criterion referenced correlation coefficient ($k^2(X,T_x)$) can be expressed in terms of norm-referenced indices:

$$k^2(X,T_x) = \frac{\rho^2(X,T_x) \sigma^2(X) + (\mu_x - C_x)^2}{\sigma^2(X) + (\mu_x - C_x)^2}$$

Where:
$X$ = a score variable
$C_x$ = the criterion score
$T_x$ = the true score
$\mu$ = the mean score
$\sigma^2$ = the variance of the scores
$\rho^2(X,T_x)$ = the norm reference reliability
General Procedures

On a day before the experiment the students were given a brief explanation of the experiment without being told of the question placement variable.

Some of the teachers in the English department would like to know how we can help you with your reading, so one of them has designed an experiment to help the teachers find this out. In order to get information about reading we need your help. We have an article which we would like you to read and answer some questions about. The article is very interesting and contains useful information about the American culture. If you would like to help us with the research, which will take place during one class period this week, please fill in the information asked for on this sheet and sign the consent form on the attached page. Return both pages to your instructor. If you do not want to take part in this experiment, tell your instructor and on the day of the experiment he will give you an in-class composition assignment which will be due on the next day.

Name____________________  Country____________________
Native Language___________  Course  071  072  073

On the day of the experiment the students were given their booklets for the selection. Students sat in groups according to the question placement for their selection; this enabled the researcher and his assistant to observe whether any group
was having problems. The population was divided into nine equal groups; an overview of the divisions is as follows:

<table>
<thead>
<tr>
<th></th>
<th>Prequestions</th>
<th>Postquestions</th>
<th>Interspersed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selection A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Selection B</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Selection C</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Those students in the prequestion group received a booklet with the following instructions printed on the cover page:

On the next page you will find some questions about an article which you have not yet read. Please read these questions and mark a guess for each question in the booklet. Choose the best answer for each question. You are not supposed to know the answer to these questions before you read the article, but taking a guess at the answer before reading the article could be thought of as a map or a guide to the passage. Your instructor will not look at the answers to these questions. They are to help you learn material which you will be tested on later. When you have read and answered all the questions, open the part of the booklet that contains the article by breaking the seal. Read the instructions on the first page of this section. When you are finished with the article, raise your hand and your instructor will come. He will remove your booklet and give you the test paper.
The test will find out how well you remember the answers to the questions. The test will also ask you for some other facts contained in the article.

To summarize:

1. Read each question and mark an answer in booklet.
2. After you have marked answers for all of the questions, then open the part of the booklet with the reading passage.
3. Read the directions on the first page of the reading passage section.
4. Read the reading passage.
5. When you are finished, raise your hand and the instructor will give you the test.

On the first page of the passage section of the booklet subjects were told that they could refer to the prequestions and correct any mistakes they had made, if they wanted to, at any time while they were reading the article.

Students in the postquestion group were given similar instructions but in this case the students were directed to read the entire selection before answering the questions. On the first page of the study-guide question section the students were told that they could refer back to material from the passage if they needed help in answering the questions. On the cover sheet of the booklet the students read the following
instructions:

On the next page you will find an article which you are to read. When you have finished reading the passage, open the part of the booklet that contains some questions by breaking the seal. Read the instructions on the first page of this section. Choose the best answer for each question. Your instructor will not look at the answers to these questions. They are to help you learn material which you will be tested on later. When you have finished, raise your hand and your instructor will come. He will take your booklet and give you the test paper. The test will find out how well you remember the answers to the questions. The test will also ask you for some other facts contained in the article.

To summarize:

1. Read the article.
2. After you have finished reading the article, open the part of the booklet which contains some questions.
3. Read the directions on the first page of the question section.
4. Answer the questions in the booklet.
5. When you are finished, raise your hand and the instructor will give you the test.

Subjects receiving interspersed questions followed a procedure developed by Boker (1974) in which the subjects were
given an envelope containing the unbound treatment pages along with a second envelope. The following instructions were attached to the outside of the first envelope:

You have just been given two envelopes. Envelope Number 1 has some papers in it; Envelope Number 2 is empty. You are to take the first sheet out of Envelope Number 1 and read it. If there are questions on that paper, mark the answers on that sheet. You may look for the answer in the passage. Choose the best answer for each question. Your instructor will not look at the answers to these questions. They are to help you learn material which you will be tested on later. When you have answered the questions, put the sheet into Envelope Number 2. Do not go back to it or refer to it again. When you have finished all the sheets in the first envelope, raise your hand and the instructor will come. He will remove the envelopes and give you your test paper. The test will find out how well you remember the answers to the questions. The test will also ask you for some other facts contained in the article.

To summarize:

1. Take the first sheet out of Envelope Number 1.
2. Read it and answer any questions on that sheet.
3. After you have read the material and have
answered the questions on the sheet, put sheet into Envelope Number 2.

4. Take out the next sheet from Envelope Number 1.

5. When you have read all the sheets, raise your hand and the instructor will give you the test.

6. Do not go back to any material in Envelope Number 2.

As can be seen from the above instructions to the subjects, when they had completed the passage and study-guide questions they returned their materials and received the Reading Retention Test from the instructor. In order to simulate a homework condition all students were permitted to work at their own speeds.

To minimize the problem of simple memorization of answers to relevant items, the students were not told whether or not their answers to study-guide questions were correct. If the student answered the retention test item correctly, it is most probable that he was able to find the appropriate factual material in the reading selection and remembered it. This also simulates a homework condition in which the student prepares at home for the next day's class.

Pilot Study

A pilot study was conducted to establish the reliability and item discrimination indices for the Retention Tests. The
scores were analyzed and it was found that some items had to be rewritten because they were too easy. No changes needed to be made in either the instructions or the reading materials. The study-guide questions and retention tests used in the pilot study can be found in Appendix A.

The suitability of the procedures was also considered and only minor administrational adjustments had to be made so that all students could finish by the end of the class period. These changes included:

1. Having information sheets and consent forms filled out on a day before the experiment took place.
2. Placing the appropriate treatment booklet, which had the student's name on it, at his seat before he came to class.
3. Making a seating chart and guiding the student to his place as he entered the room.
4. Numbering all booklets and tests so that, when the student had finished with the treatment, the appropriate test with his name and number on it could be given to him.

These changes made it possible for each subject to complete the treatment booklet and take the retention test before the 40-minute class period was over.

Statistical Analysis

In this experiment there were two dependent variables: relevant and non-relevant retention test scores; each of the
two dependent measures was subjected separately to a univariate analysis of variance (ANOVA) in which question placement served as the independent variable. Separate pairs of ANOVA's were used for each of the selections. The following null hypotheses were tested:

\( H_0: \) There is no significant difference attributable to question position (pre, post, interspersed) on a posttest measure of reading retention as reflected by retention test scores for relevant material.

\( H_0: \) There is no significant difference attributable to question position (pre, post, interspersed) on a posttest measure of reading retention as reflected by retention test scores for non-relevant material.

It was decided for two reasons to use six one-factor analyses of variance instead of one larger multivariate analysis of variance. First, although the dependent variables are related, it is not certain that they can be considered two levels of one unified construct. Secondly, in order to examine the three sets of retention test scores with one statistical test, equivalency of the tests for the selections would have had to have been established. In view of the fact that the three selections deal with different subject matter and type of material, one might well achieve numerical equivalency but yet be measuring different areas. The choice of the six separate ANOVA's provides a valid use of the statistical test and allows for a clearer interpretation of the knowledge gained.
CHAPTER IV

RESULTS AND DATA ANALYSIS

Introduction

Six separate one-way analyses of variance were used in this experiment in order to study the effects of three types of question placement on retention of two types of factual material from three different reading selections. The types of question position used in the study were:

1. Prequestions
2. Postquestions
3. Interspersed Questions

The following selections were chosen from *The USA -- Customs and Institutions*:

1. "Patriotic Holidays"
2. "Religion in American Life"
3. "Labor Day"

The basic experiment was replicated three times, one for each selection, in order to find out whether the effects of question placement were consistent with different reading passages by the same author and to base the conclusions of the study on more than one reading selection. The criterion test was composed of two subtests measuring:

1. Retention of Relevant Material
2. Retention of Non-Relevant Material

Livingston reliabilities for the separate subtests can be found in Table 2.

The three separate experiments in this study utilized the same design and procedures; however, different reading passages and therefore different criterion tests were used for each experiment. All three passages were written by the same author and all criterion tests were constructed by the experimenter with the help of a panel of judges. The findings relative to the first and second null hypotheses will be reported separately for each experiment.

Experiment I

The reading selection "Patriotic Holidays" was used in Experiment I; the passage, study-guide questions and criterion test can be found in Appendix B. Table 3 presents the means and standard deviations for retention scores of both relevant and non-relevant material. Figure 2 illustrates their relationship in graph form. Table 4 summarizes the results of the one-way analysis of variance for relevant material, Table 5 the one-way analysis of non-relevant test scores.

**Hypothesis I:** There is no significant difference attributable to question position (pre, post, interspersed) on a post-test measure of reading retention as reflected by retention test scores for relevant material.
### TABLE 2

**LIVINGSTON RELIABILITIES OF CRITERION TESTS**

<table>
<thead>
<tr>
<th>Relevant Retention Tests</th>
<th>Kuder-Richardson-20 Norm-Referenced Reliability</th>
<th>Criterion Score</th>
<th>Mean</th>
<th>S.D.</th>
<th>Livingston Criterion-Referenced Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Patriotic Holidays&quot;</td>
<td>.54</td>
<td>6</td>
<td>7.98</td>
<td>1.78</td>
<td>.80</td>
</tr>
<tr>
<td>&quot;Religion in American Life&quot;</td>
<td>.16</td>
<td>6</td>
<td>8.77</td>
<td>1.01</td>
<td>.89</td>
</tr>
<tr>
<td>&quot;Labor Day&quot;</td>
<td>.07</td>
<td>6</td>
<td>8.24</td>
<td>0.77</td>
<td>.90</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Non-Relevant Retention Tests</th>
<th>Kuder-Richardson-20 Norm-Referenced Reliability</th>
<th>Criterion Score</th>
<th>Mean</th>
<th>S.D.</th>
<th>Livingston Criterion-Referenced Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Patriotic Holidays&quot;</td>
<td>.42</td>
<td>4</td>
<td>7.41</td>
<td>1.77</td>
<td>.88</td>
</tr>
<tr>
<td>&quot;Religion in American Life&quot;</td>
<td>.29</td>
<td>4</td>
<td>6.70</td>
<td>1.67</td>
<td>.80</td>
</tr>
<tr>
<td>&quot;Labor Day&quot;</td>
<td>.22</td>
<td>4</td>
<td>8.23</td>
<td>1.23</td>
<td>.94</td>
</tr>
</tbody>
</table>
### TABLE 3

**MEANS AND STANDARD DEVIATIONS FOR RELEVANT AND NON-RELEVANT TEST SCORES**

Experiment I - "Patriotic Holidays"

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Relevant Material</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Postquestions</td>
<td>27</td>
<td>8.7407</td>
<td>1.7452</td>
</tr>
<tr>
<td>Interspersed</td>
<td>27</td>
<td>7.9630</td>
<td>1.3723</td>
</tr>
<tr>
<td>Prequestions</td>
<td>27</td>
<td>7.2222</td>
<td>1.9081</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>81</td>
<td>7.9753</td>
<td>1.7817</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Non-Relevant Material</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Postquestions</td>
<td>27</td>
<td>7.8148</td>
<td>1.7767</td>
</tr>
<tr>
<td>Interspersed</td>
<td>27</td>
<td>7.2593</td>
<td>1.6777</td>
</tr>
<tr>
<td>Prequestions</td>
<td>27</td>
<td>7.1852</td>
<td>1.8405</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>81</td>
<td>7.4074</td>
<td>1.7733</td>
</tr>
</tbody>
</table>
FIGURE 2. Treatment-Group Means for the 10-Item Retention Test of Relevant Material and for the 10-Item Retention Test of Non-Relevant Material (Experiment I—"Patriotic Holidays").
<table>
<thead>
<tr>
<th>Source</th>
<th>Degrees of Freedom</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>F Ratio</th>
<th>F Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question Placement (Between Groups)</td>
<td>2</td>
<td>31.1354</td>
<td>15.5677</td>
<td>5.450</td>
<td>0.0061</td>
</tr>
<tr>
<td>Within Groups</td>
<td>78</td>
<td>222.8144</td>
<td>2.8566</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>80</td>
<td>253.9497</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
TABLE 5

ANALYSIS OF VARIANCE OF NON-RELEVANT TEST SCORES BY QUESTION PLACEMENT
Experiment I - "Patriotic Holidays"

<table>
<thead>
<tr>
<th>Source</th>
<th>Degrees of Freedom</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>F Ratio</th>
<th>F Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question Placement (Between Groups)</td>
<td>2</td>
<td>6.3949</td>
<td>3.1974</td>
<td>1.025</td>
<td>0.3636</td>
</tr>
<tr>
<td>Within Groups</td>
<td>78</td>
<td>243.3329</td>
<td>3.1197</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>80</td>
<td>249.7278</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
An examination of Table 4 indicated that the null hypothesis must be rejected, $F(2,78) = 5.450, p < .01$. Since the main effects of question position were found significant, the Tukey multiple range test was used to examine group means. This test revealed that, although questions which appeared in the post position, i.e. postquestions and interspersed questions, produced test scores that were higher than those for prequestions, only postquestions produced significantly higher criterion test scores for relevant material ($p < .05$). No significant difference was found between group means for prequestions and interspersed questions or for interspersed questions and postquestions.

**Hypothesis II:** There is no significant difference attributable to question position (pre, post, interspersed) on a post-test measure of reading retention as reflected by retention test scores for non-relevant material.

This hypothesis can not be rejected, $F(2,78) = .893, p > .05$. Table 5 shows that the position of questions did not affect retention of non-relevant material for this selection significantly; however, both scores for postquestion position are somewhat higher than that for prequestions.

**Experiment II**

Subjects in Experiment II received the reading passage "Religion in American Life"; these materials can be found in Appendix C. The means and standard deviations of relevant
and non-relevant retention test scores can be found in Table 6. Table 7 presents the results of the one-way analysis of variance for relevant material; the findings of the one-way analysis of variance for non-relevant material can be found in Table 8. The means of the test scores for relevant and non-relevant material are depicted in Figure 3.

**Hypothesis I:** There is no significant difference attributable to question position (pre, post, interspersed) on a posttest measure of reading retention as reflected by retention test scores for relevant material.

The data from Table 7 indicate that the null hypothesis must be rejected, $F(2,78) = 5.540$, $p < .01$. Further analysis with the Tukey multiple range test revealed that interspersed postquestions produced a significantly higher mean test score ($p < .05$) when compared to prequestions; postquestions resulted in a mean criterion test score which was higher than that for prequestioning but this difference was not significant. There was also no significant difference between the mean for the postquestion group and that of the interspersed question group.

**Hypothesis II:** There is no significant difference attributable to question position (pre, post, interspersed) on a posttest measure of reading retention as reflected by retention test scores for non-relevant material.

This hypothesis must also be rejected, $F(2,78) = 3.396$, $p < .05$. The data from the one-way analysis of variance are summarized in Table 8. Further analysis using the Tukey
TABLE 6

MEANS AND STANDARD DEVIATIONS
FOR RELEVANT AND NON-RELEVANT TEST SCORES

Experiment II - "Religion in American Life"

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relevant Material</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interspersed</td>
<td>27</td>
<td>9.0741</td>
<td>0.8286</td>
</tr>
<tr>
<td>Postquestions</td>
<td>27</td>
<td>8.8519</td>
<td>1.0267</td>
</tr>
<tr>
<td>Prequestions</td>
<td>27</td>
<td>8.3704</td>
<td>1.3053</td>
</tr>
<tr>
<td>Total</td>
<td>81</td>
<td>8.7654</td>
<td>1.0985</td>
</tr>
<tr>
<td>Non-Relevant Material</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Postquestions</td>
<td>27</td>
<td>7.2963</td>
<td>1.2346</td>
</tr>
<tr>
<td>Interspersed</td>
<td>27</td>
<td>6.6667</td>
<td>1.7320</td>
</tr>
<tr>
<td>Prequestions</td>
<td>27</td>
<td>6.1481</td>
<td>1.8335</td>
</tr>
<tr>
<td>Total</td>
<td>81</td>
<td>6.7037</td>
<td>1.6692</td>
</tr>
</tbody>
</table>
FIGURE 3. Treatment-Group Means for the 10-Item Retention Test of Relevant Material and for the 10-Item Retention Test of Non-Relevant Material (Experiment II - "Religion in American Life").
<table>
<thead>
<tr>
<th>Source</th>
<th>Degrees of Freedom</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>F Ratio</th>
<th>F Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question Placement (Between Groups)</td>
<td>2</td>
<td>6.9879</td>
<td>3.4939</td>
<td>3.043</td>
<td>0.0543</td>
</tr>
<tr>
<td>Within Groups</td>
<td>78</td>
<td>89.5553</td>
<td>1.1481</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>80</td>
<td>96.5431</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Table 8

**Analysis of Variance of Non-Relevant Test Scores by Question Placement**

*Experiment II - "Religion in American Life"*

<table>
<thead>
<tr>
<th>Source</th>
<th>Degrees of Freedom</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>F Ratio</th>
<th>F Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question Placement (Between Groups)</td>
<td>2</td>
<td>17.8520</td>
<td>8.9260</td>
<td>3.396</td>
<td>0.0385</td>
</tr>
<tr>
<td>Within Groups</td>
<td>78</td>
<td>205.0366</td>
<td>2.6287</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>80</strong></td>
<td><strong>222.8886</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
multiple range test reveals that the mean for the postquestion group was significantly higher than that of the prequestion group \((p < .05)\). Although the mean interspersed question score was higher than the mean prequestion score, this difference was not significant. There was no significant difference between the means of the interspersed question group and the postquestion group.

**Experiment III**

The reading selection "Labor Day" was used in Experiment III; these materials may be found in Appendix D. Table 9 shows the means and standard deviations of the relevant and non-relevant test scores. Figure 4 illustrates their relationship; Table 10 and 11 summarize the results of the one-way analyses of variance respectively.

**Hypothesis I:** There is no significant difference attributable to question position (pre, post, interspersed) on a posttest measure of reading retention as reflected by retention test scores for relevant material.

An examination of the data in Table 10 reveals that the null hypothesis can not be rejected, \(F(2,78) = .578, p > .05\). In this case there were no significant differences among the means; the mean score for the group receiving prequestions was slightly higher than those for postquestion and interspersed question groups, however.

**Hypothesis II:** There is no significant difference attributable to question position (pre, post, interspersed) on a
<table>
<thead>
<tr>
<th>Relevant Material</th>
<th>n</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prequestions</td>
<td>27</td>
<td>9.5185</td>
<td>0.7000</td>
</tr>
<tr>
<td>Postquestions</td>
<td>27</td>
<td>9.3704</td>
<td>0.8389</td>
</tr>
<tr>
<td>Interspersed</td>
<td>27</td>
<td>9.2963</td>
<td>0.7753</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>81</td>
<td>9.3951</td>
<td>0.7694</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Non-Relevant Material</th>
<th>n</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interspersed</td>
<td>27</td>
<td>8.7037</td>
<td>1.2346</td>
</tr>
<tr>
<td>Postquestions</td>
<td>27</td>
<td>8.0370</td>
<td>1.0913</td>
</tr>
<tr>
<td>Prequestions</td>
<td>27</td>
<td>7.9630</td>
<td>1.2552</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>81</td>
<td>8.2346</td>
<td>1.2275</td>
</tr>
</tbody>
</table>
FIGURE 4. Treatment-Group Means for the 10-Item Retention Test of Relevant Material and for the 10-Item Retention Test of Non-Relevant Material (Experiment III - "Labor Day").
### TABLE 10

**ANALYSIS OF VARIANCE OF RELEVANT TEST SCORES BY QUESTION PLACEMENT**

Experiment III - "Labor Day"

<table>
<thead>
<tr>
<th>Source</th>
<th>Degrees of Freedom</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>F Ratio</th>
<th>F Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question Placement (Between Groups)</td>
<td>2</td>
<td>0.6914</td>
<td>0.3457</td>
<td>0.0578</td>
<td>0.5635</td>
</tr>
<tr>
<td>Within Groups</td>
<td>78</td>
<td>46.6666</td>
<td>0.5983</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>80</strong></td>
<td><strong>47.3579</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### TABLE 11

**ANALYSIS OF VARIANCE OF NON-RELEVANT TEST SCORES BY QUESTION PLACEMENT**

**Experiment III - "Labor Day"**

<table>
<thead>
<tr>
<th>Source</th>
<th>Degrees of Freedom</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>F Ratio</th>
<th>F Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question Placement (Between Groups)</td>
<td>2</td>
<td>8.9874</td>
<td>4.4937</td>
<td>3.142</td>
<td>0.0487</td>
</tr>
<tr>
<td>Within Groups</td>
<td>78</td>
<td>111.5552</td>
<td>1.4302</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>80</td>
<td>120.5427</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
posttest measure of reading retention as reflected by retention test scores for non-relevant material.

The null hypothesis must be rejected, \( F(2,78) = 3.142, p < .05 \). Results of a comparison of means using the Tukey multiple range test show significantly higher retention \((p < .05)\) when the mean test score of the interspersed question group is compared with that of the prequestion group. Although the mean postquestion score was higher than the mean prequestion score, this difference was not significant. Neither the means for the interspersed questions and postquestions nor the means for prequestions and postquestions were significantly different.
CHAPTER V

SUMMARY, CONCLUSIONS, AND IMPLICATIONS

Overview

This experiment was designed to study the effects of three types of question placement on the retention of factual material for learners of English as a second language. The independent variable, question placement, consisted of three question positions: prequestions, postquestions, and interspersed postquestions. The experiment was replicated three times with three reading selections by the same author in order to find out whether the effects of question placement were consistent for different reading passages by the same author and to base the conclusions of the study on more than one reading selection.

A one-factor design was repeated for each reading selection. Each of the 243 learners of English as a second language at The Ohio State University who took part in the experiment was randomly assigned to a reading selection group and question placement group. Subjects were given study-guide questions as either prequestions, postquestions, or interspersed questions. Those who received prequestions marked guesses to the study-guide questions and then read the selection. The postquestion group first read the article in its
entirety and then was allowed to view the study-guide questions. The interspersed question group was given the article in sections with the study-guide questions in the post position. They were asked to read each section and then answer the questions. All subjects were allowed to refer to the passage in order to search for information to answer the study-guide questions. After they had finished reading and answering the questions, the materials were removed and the students took a twenty-item multiple-choice test which consisted of two subtests measuring retention of information about which questions had been asked (relevant material) and retention of information about which no questions had been asked (non-relevant material).

Summary of Findings

A review of the findings reveals differences between the various placement group means; in some cases these differences were significant beyond the .05 level. A summary of the findings can best be presented in terms of the two research questions investigated in the experiment:

1. Does the position of written study-guide questions for a reading passage affect the performance of a student on a test measuring how well he can remember passage material asked for by the study-guide questions?

For the reading selection "Labor Day", there were no significant differences among the mean test scores for relevant material. For "Patriotic Holidays" and "Religion in
American Life" both postquestions and interspersed postquestions appeared to produce higher retention scores than did prequestions. In "Patriotic Holidays" the difference between the means of the postquestion group and the prequestion group was significant ($p < .05$); for "Religion in American Life" there was a significant difference ($p < .05$) between the interspersed and prequestion groups.

From the findings it can be seen that placing questions after reading material is often connected with a significantly higher relevant retention test score; however, the difference between scores from prequestioned groups and postquestioned groups is not great. The highest difference in mean scores was approximately 1.5 points for the 10-point test. We can conclude from these results that, for the students tested, post-positioned questions appear to give fairly consistent results, while prequestioning may in comparison yield as good or slightly inferior retention of relevant material.

2. Does the position of written study-guide questions for a reading passage affect the performance of a student on a test measuring how well he can remember passage material about which no study-guide questions were asked?

For the reading selection "Labor Day", interspersed postquestions produced significantly higher non-relevant test scores than did the prequestions ($p < .05$). There were no differences between prequestion and postquestion groups or between postquestion and interspersed question groups. Postquestioning
and interspersed questioning produced higher scores than prequestioning for the reading selection, "Religion in American Life"; however, only the difference between the postquestion mean and the prequestion mean was significant ($p < .05$). There were no statistically significant differences between postquestioned groups and interspersed groups or between interspersed and prequestioned groups. For "Patriotic Holidays" there were no significant differences among the groups, although prequestioning yielded the lowest non-relevant test scores.

The data indicate that questions in the post position, whether they are interspersed or positioned after the entire passage, promote better retention of non-relevant material than do prequestions. These effects appear to be more consistent than the effects of question position on relevant material, although the differences among group means, the largest being 1.1 for the 10-point test, were not great.

Conclusions

The results of the experiment in general agree with the findings of numerous other researchers: questions in the post position have facilitative effects on retention of both relevant and non-relevant factual material in comparison with prequestions, which have a greater influence on the question-relevant factual material.

Impact of the Study

The results of the study were given to both students and teachers in the English as a second language program at The
Ohio State University. The teachers were interested in the findings and, having examined the results, appeared to be of the opinion that the standard procedure of postquestioning was the most productive and the most convenient in view of the fact that most English reading selections for foreign students are printed with postquestions. There appeared to be no change in the teachers' attitudes about question position: postquestions were the most efficient.

A serendipitous finding of the study was that the students were reading on a much higher level than was realized. The text from which the passages were taken had been used in previous years as a reader in the most advanced class. From the results of the tests in the lower classes it was discovered that the text would even be appropriate for the lowest class and probably was too simple for the advanced students.

Recommendations for Further Research

1. The results of this experiment indicate that the effects of the different question placements are only sometimes significantly different from each other. This could imply one or both of the following explanations:

   a. There is an interaction of question placement and some other variable such as characteristics of the reading selection, cognitive level of the questions, or individual differences among the subjects.

   b. The strengths of the effects produced by the various question placements differ only slightly.
A repeated measures design would expose all subjects to all question placement treatments and would allow a more sensitive statistical test of significance, since individual differences would be controlled for. It must be mentioned that this type of design poses problems for the experimenter: more time is demanded of the subjects and the researcher must develop or find equivalent sets of appropriate reading selections and retention tests.

2. What can be seen from this study is that question position does affect retention test scores and that effects do not appear consistent. Why this effect occurs is a question for further research. What may be leading researchers astray is the problem of determining exactly what the task is and what the orientation or aid is. In approaching an assignment, most students would say that they would like some sort of orientation or aid to help them complete the task more easily. A teacher would probably say that he gives questions with a reading selection in order to point out the most important parts of the passage and give students a way of checking their comprehension of the passage; therefore, from the teacher's point of view, reading the selection is the task and answering the questions is the orientation. Do students perceive this in the same way? A student would most probably say that answering the questions is the task and reading the selection is the orientation. If the student feels that answering the questions is the task, then when he is given prequestions, he may
well feel that he has been assigned a task without a proper orientation; that is, he may feel confused and frustrated by the prequestions. Data on student attitudes toward different questioning strategies and their perceptions of their purpose could help researchers and educators develop a unified theory of questioning.

3. The generalizability of the results of the study to learners of other foreign languages poses another problem. The learners of English as a second language at The Ohio State University are generally experienced language learners -- that is, people who have had a number of years of English and who are functioning daily in English. Many are graduate students. A typical foreign language class in the United States would not fit this description. The findings of this study could only be generalized to learners of English as a second language in an advanced program.

The results of the tests showed very high scores for retention of both relevant and non-relevant factual information. This implies an ability to memorize, a factor which may be one of the most important to consider before extrapolating to other populations. In many foreign countries the lack of textbooks, both the quantity on hand in the classroom and their availability from publishers, restrict the type of teaching and style of learning in the classroom. In other words, this lack of textbooks causes the available texts to be memorized and forces teachers to adopt instructional strategies
which entail a great deal of rote learning. In many countries memorization is encouraged and retention of large quantities of information is a sign of a scholar. This is often reflected for many content areas in an established pattern of national testing which places value on the ability of a student to reproduce and cite specific information. Preparing for these tests increases the capacity to memorize. Finally, the input of religion must not be overlooked. Memorization of scriptures has served both religious and educational purposes: Moehlman and Roucek (1952) state, "The ancient and traditional way of learning Arabic was in the ungraded Moslem school known as the kuttab. Here the child memorized the Koran and also acquired the elements of the three R's." (p. 457)

The passages used in this experiment were short and there were relatively few questions asked. These factors may have worked to the advantage of those students who memorized easily. Perhaps longer, more difficult selections with more questions would have yielded different results with the subjects of this study.

In view of American educational trends toward cognitive learning and away from memorization, it might be said that most American students have not had the practice in memorizing that the foreign students have had. A replication of this experiment using second-year German materials might yield totally different results. There is a need to research the effects of question placement with less sophisticated learners.
of a second language. It may even be found that the effects of question placement, which have been reported as being different for different content areas, may possibly vary from foreign language to foreign language.

4. Only the effects of varying the placement of written questions on factual material from a reading passage were examined in this study. Factual questioning and questioning about reading selections are not the only types of questioning found in the foreign language classroom. In view of Rickards' (1976) study, in which an interaction between question placement and cognitive level of the question was reported, it would now seem appropriate for research to be conducted investigating the effects of interaction of question placement and cognitive level of the question for learners of foreign languages. Questions are also asked in conjunction with listening passages in the foreign language. Research examining the effects of the cognitive level and position of questions which are given in conjunction with a listening passage could be very useful to the foreign language teacher.

5. The question can be raised as to whether postquestions facilitated learning best in this experiment because students were most familiar with this format for question placement. Perhaps an experimental design in which subjects had exposure to all question placements and a sufficient opportunity to learn to use them before experimental treatments were administered would produce different results with the subjects of this study.
6. Only short-range retention of information was investigated in this experiment. The long-term effects of the position of the questions could be examined by another researcher.

7. Finally, students in this experiment had no choice of learning strategy; they were forced to use the question placement designated for their treatment group. In a real-life situation, the question position can be altered by the student; questions in a post position can easily become prequestions if a student turns a few pages and reads these questions before reading the selection. Whether question position interacts with personal preference or learning style needs to be examined.

Implications

What implications does this experiment have for a methodology of questioning in the foreign language? Are the findings here generalizable to classroom use? The results of this study are applicable if used with caution and viewed in perspective. If the classroom teacher of English as a second language wants optimum retention of both relevant and non-relevant factual material, postquestions seem to be best initially. However, if the teacher feels that prequestions motivate students better or give them a reason for reading the passage and is not bothered by the fact that there might be less retention of non-relevant factual material, prequestions can be used.
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APPENDIX A. PILOT STUDY

1. "Patriotic Holidays"
   a. Study-Guide Questions
   b. Retention Test

2. "Religion in American Life"
   a. Study-Guide Questions
   b. Retention Test

3. "Labor Day"
   a. Study-Guide Questions
   b. Retention Test
1. Memorial Day now officially honors . . .
   a. soldiers from both the North and South who died in the Civil War.
   b. veterans.
   c. the veterans of World Wars I and II.
   d. all American soldiers who gave their lives for their country.

2. On Memorial Day people customarily go . . .
   a. to visit relatives.
   b. to parks.
   c. to church.
   d. to cemeteries.

3. Memorial Day was at one time called . . .
   a. Armistice Day.
   b. Veterans Day.
   c. Decoration Day.
   d. Independence Day.

4. Another name for Veterans Day is . . .
   a. Decoration Day.
   b. Armistice Day.
   c. Independence Day.
   d. Flag Day.

5. Today Veterans Day honors . . .
   a. All veterans of World War I and the wars which followed.
   b. those who died for their country.
   c. all Americans who have served their country in the military.
   d. the anniversary of the armistice between Germany and the USA.
6. Americans celebrate Flag Day on . . .
   a. November 11.
   c. May 10.
   d. May 30.

7. Americans celebrate Flag Day . . .
   a. as the anniversary of the making of the first American flag.
   b. as the anniversary of the day when the American flag was adopted.
   c. on the birthday of the maker of the first American flag.
   d. on the day when the Declaration of Independence was signed.

8. Betsy Ross lived in . . .
   b. Columbus, Mississippi.
   c. Washington, D.C.

9. The Declaration of Independence was signed . . .
   a. during the Revolutionary War between the USA and England.
   b. after the Revolutionary War between the USA and England.
   c. before the Revolutionary War between the USA and England.
   d. during the time when Thomas Jefferson was president.

10. The author of the Declaration of Independence was . . .
    b. Betsy Ross.
    d. Thomas Jefferson.
PATRIOTIC HOLIDAYS - Pilot Study Retention Test

Directions - Read each question and choose the best answer according to what you have read in the article. Mark your answers on the computer sheet which your instructor has given you.

1. Memorial Day is now a special day for . . .
   a. the veterans of World Wars I and II.
   b. all American soldiers who have died for their country.
   c. soldiers from both the North and South who died in the Civil War.
   d. the veterans of the Vietnam War.

2. On Memorial Day Americans traditionally visit . . .
   a. churches.
   b. relatives.
   c. friends.
   d. cemeteries.

3. Memorial Day was first celebrated in . . .
   a. Alabama.
   b. Georgia.
   c. Mississippi.
   d. South Carolina.

4. The National Cemetery is located in . . .
   b. Columbus, Mississippi.
   c. Washington, D.C.
   d. Arlington, Virginia.

5. An old name for Memorial Day is . . .
   a. Armistice Day.
   b. Decoration Day.
   c. Independence Day.
   d. Veterans Day.
6. At the time the article was written, Memorial Day was celebrated . . . 
a. in memory of the soldiers who fought in the Confederate Army. 
b. as a happy occasion. 
c. only in the South. 
d. at different times in certain places in the USA.

7. Veterans Day was at one time called . . . 
a. Flag Day. 
b. Independence Day. 
c. Armistice Day. 
d. Decoration Day.

8. Veterans Day now Honors . . . 
a. people who fought in the most recent war. 
b. veterans who died for their country. 
c. all Americans who have been in military service. 
d. people who fought in World War I and the following wars.

9. The Unknown Soldier is buried in . . . 
b. Columbus National Cemetery. 
c. Arlington National Cemetery. 

10. You might hear church bells ringing on . . . 
a. Independence Day. 
b. Veterans Day. 
c. Flag Day. 
d. Memorial Day.
11. Flag Day is celebrated on . . .
   a. November 11.
   b. May 30.
   c. May 10.
   d. June 14.

12. Flag Day is celebrated . . .
   a. as the anniversary of the signing of the Declaration of Independence.
   b. as the anniversary of the adoption of the American flag.
   d. as the anniversary of the making of the first American flag.

13. The color white in the American flag stands for . . .
   a. liberty.
   b. loyalty.
   c. victory.
   d. courage.

14. You could find the home of Betsy Ross in . . .
   a. Washington, D.C.
   c. Arlington, Virginia.
   d. Columbus, Mississippi

15. The maker of the first American flag suggested that, as a part of its design, the American flag should . . .
   a. have five-pointed stars.
   b. have white stars.
   c. be red, white, and blue.
   d. have stars arranged in a circle.
16. According to the article, Americans say the Pledge of Allegiance because . . .
   a. it is simply a custom.
   b. they want to show their love of country and flag.
   c. the law says that an American must do this.
   d. they want to show that they love the flag.

17. Members of the Congress signed the Declaration of Independence . . .
   a. before the Revolutionary War between the USA and England.
   b. after the Revolutionary War between the USA and England.
   c. during the Revolutionary War between the USA and England.
   d. during the presidency of Thomas Jefferson.

18. The person who wrote the Declaration of Independence was . . .
   b. Thomas Jefferson.
   d. Betsy Ross

19. George Washington was the first president of the USA. Thomas Jefferson was the . . .
   a. second president of the USA.
   b. third president of the USA.
   c. fourth president of the USA.
   d. fifth president of the USA.

20. President Eisenhower changed the name of . . .
   a. Independence Day.
   b. Flag Day.
   c. Decoration Day.
   d. Armistice Day.
RELIGION IN AMERICAN LIFE - Pilot Study Study-Guide Questions

1. According to the article, the major characteristic of religion in America is . . .
   a. church attendance.
   b. intolerance.
   c. diversity.
   d. uniformity.

2. In American there are about . . .
   a. 69 different religious sects.
   b. 250 different religious sects.
   c. 3 different religious sects.
   d. 95 different religious sects.

3. The document which states that religion and government in the United States must be separate is the . . .
   a. Declaration of Independence.
   b. Constitution.
   c. Bill of Rights.
   d. First Amendment to the Constitution.

4. Two religious sects which were first established in the United States are . . .
   b. Mormonism and Sectarianism.
   d. Catholicism and Mormonism.

5. Mary Baker Eddy started . . .
   a. Deism.
   b. Mormonism.
   c. Sectarianism.
6. The single largest religious group in the United States is the . . .
   a. Baptist church.
   c. Roman Catholic church.
   d. Presbyterian church.

7. According to the author, religion as an influence on the lives of most Americans is . . .
   a. increasing.
   b. remaining the same.
   c. remaining negligible.
   d. decreasing.

8. The author says that church attendance in America has . . .
   a. remained the same in recent years.
   b. had its ups and downs in recent years.
   c. increased in recent years.
   d. decreased in recent years.

9. The author says that the modern American is . . .
   a. passive.
   b. more interested in the hereafter than the present.
   c. more interested in the present than the hereafter.
   d. intolerant.

    a. seems to be decreasing.
    b. is increasing.
    c. is unusual.
    d. is remaining stable.
Directions - Read each question and choose the best answer according to what you have read in the article. Mark your answers on the computer sheet which your instructor has given you.

1. The article says that in America . . .
   a. all churches are very much alike.
   b. there are many different religious sects.
   c. nearly everyone goes to church regularly.
   d. most people are intolerant of other religions.

2. The number of different religious sects in America is approximately . . .
   a. 95.
   b. 69.
   c. 3.
   d. 250.

3. Religion and government in the United States must be separate. This guarantee is found in the . . .
   a. Bill of Rights.
   b. First Amendment to the Constitution.
   c. Declaration of Independence.
   c. Constitution.

4. The United States was founded as . . .
   a. a church-directed nation.
   b. an intolerant nation.
   c. an atheistic nation.
   d. a non-sectarian nation.
5. According to the article, the percentage of members of religions other than Christians or Jews is . . .
   a. moderate.
   b. very large.
   c. small.
   d. large.

6. According to the article we can find religious groups with over 500,000 members in only about . . .
   a. 8 Protestant sects.
   b. 28 Protestant sects.
   c. 80 Protestant sects.
   d. 18 Protestant sects.

7. Two religious sects which were founded in America are . . .
   b. Catholicism and Mormonism.
   d. Mormonism and Sectarianism.

8. Utah was not admitted as a state until . . .
   a. the Mormons had left the state.
   b. polygamy was begun.
   c. 1869.
   d. certain Mormon practices were stopped.

9. The religion which Mary Baker Eddy founded is . . .
   b. Deism.
   c. Sectarianism.
   d. Mormonism.
10. The article mentions a church newspaper published by the . . .
   a. Catholic church.
   b. Baptist church.
   c. Mormon church.

11. Most religious Americans are . . .
   a. Baptist.
   b. Jewish.
   c. Catholic.
   d. Protestant.

12. The article says that the largest unified religious sect in the United States is the . . .
   b. Baptist church.
   c. Presbyterian church.
   d. Roman Catholic church.

13. The third major religious group in America is . . .
   a. Catholicism.
   b. Protestantism.
   c. Mormonism.
   d. Judaism.

14. The author says that the influence of religion on American life is . . .
   a. becoming stronger.
   b. becoming weaker.
   c. remaining the same.
   d. staying negligible.

15. According to the article, religion offers Americans a . . .
   a. chance to save their souls.
   b. way to obey the law.
   c. chance to feel they belong to a group.
   d. place to find political power.
16. The author says that the numbers of people that can be found in church have . . .
   a. fluctuated in recent years.
   b. increased in recent years.
   c. decreased in recent years.
   d. remained stable.

17. According to the article the modern American is . . .
   a. more interested in what happens to him after he dies than what happens to him on earth.
   b. passive.
   c. intolerant.
   d. more interested in what happens to him on earth than what happens to him after he dies.

18. In comparison with church members in the rest of the country, church members in the Bible Belt can be described as more . . .
   a. liberal.
   b. traditional.
   c. numerous.
   d. educated.

19. The author of the article considers the influence of religion in the USA to be . . .
   a. liberal.
   b. neither positive nor negative.
   c. positive.
   d. negative.

20. In America religious tolerance . . .
   a. is remaining the same.
   b. is increasing.
   c. is not common.
   d. appears to be decreasing.
LABOR DAY - Pilot Study Study-Guide Questions

1. The first Labor Day celebration was in the year . . .
   a. 1892.
   b. 1859.
   c. 1895.
   d. 1852.

2. On Labor Day we think about all the progress made by . . .
   a. small business.
   b. the social security system.
   c. organized labor unions.
   d. carpenters.

3. The union's strongest way of showing its power is the . . .
   a. strike.
   b. lockout.
   c. picket.
   d. contract.

4. The power of the unions is controlled by . . .
   a. the Civil Rights Act of 1965.
   b. the Constitution.
   c. the Bill of Rights.
   d. the Taft-Hartley Labor Act.

5. The amount of money earned by a family had risen in 1968 partly because . . .
   a. the Taft-Hartley Act required it.
   b. the unions had put pressure on industries.
   c. many married women had begun working.
   d. the dollar had risen.
6. Medical care, housing and food cost the American . . .
   a. 60 percent of his family income.
   b. 50 percent of his family income.
   c. 40 percent of his family income.
   d. 30 percent of his family income.

7. The article says that unemployed people who receive a pension from the federal government . . .
   a. receive a generous amount of money.
   b. are given enough money for basic needs.
   c. receive too much money.
   d. cannot exist on this money.

8. According to the article, the percentage of poverty-level families . . .
   a. cannot be accurately determined.
   b. has increased since 1914.
   c. has decreased since 1914.
   d. is the same as in 1914.

9. The article says that jobs are hard to find for . . .
   a. office workers.
   b. unskilled workers.
   c. skilled workers.
   d. musicians or actors.

10. Federal and state governments are trying to solve the unemployment problem by . . .
    a. automation.
    b. the Taft-Hartley Act.
    c. vocational training.
    d. giving more power to unions.
LABOR DAY - Pilot Study Retention Test

Directions - Read each question and choose the best answer according to what you have read in the article. Mark your answers on the computer sheet which your instructor has given you.

1. Peter McGuire worked as . . .
   a. a carpenter.
   b. a businessman.
   c. an unskilled worker.
   d. a teacher.

2. Americans celebrated Labor Day for the first time in the year . . .
   a. 1859.
   b. 1852.
   c. 1895.
   d. 1892.

3. Labor Day celebrates the achievements of . . .
   a. carpenters.
   b. organized labor unions.
   c. small business.
   d. the social security system.

4. Normally, jobs cannot be held by children under the age of . . .
   a. 10.
   b. 11.
   c. 12.
   d. 14.
5. American unions support the concept of . . .
   a. the guaranteed annual income.
   b. wage differences on the basis of sex.
   c. a longer work week.
   d. increased inflation.

6. At the time the article was written, membership in labor unions was about . . .
   a. 29 million.
   b. 19 million.
   c. 39 million.
   d. 9 million.

7. Workers who are on strike often show everyone that they disagree with their employers by . . .
   a. fluctuating.
   b. picketing.
   c. persevering.
   d. subsidizing.

8. The balance of power between labor and management is maintained by . . .
   a. the Constitution.
   b. the Bill of Rights.
   c. the Civil Rights Act of 1965.
   d. the Taft-Hartley Labor Act.

9. In 1968, the average family income was about . . .
   a. $2,500 per year.
   b. $8,000 per year.
   c. $5,000 per year.
   d. $10,000 per year.
10. In 1968 the average family income had risen partly because . . .
   a. the Taft-Hartley Act required it.
   b. the unions had demanded large wage increases.
   c. many married women had taken jobs.
   d. the dollar had gained purchasing power.

11. At the time that this article was written, the population of the United States was about . . .
   a. 200 million.
   b. 210 million.
   c. 220 million.
   d. 230 million.

12. The part of the American income which is spent on housing, food and medical care is about . . .
   a. 30%.
   b. 40%.
   c. 50%.
   d. 60%.

13. An individual is considered poor by the federal government if he earns less than . . .
   a. $1500 per year.
   b. $2500 per year.
   c. $3000 per year.
   d. $3335 per year.

14. Women can retire and get an old age pension at age . . .
   a. 60.
   b. 62.
   c. 64.
   d. 65.
15. According to the article, unemployed people living on a federal pension . . .
   a. are not given enough money to live on.
   b. are generously taken care of.
   c. are given too much money.
   d. receive enough money for basic needs.

16. The percentage of families at the poverty level, according to the author, . . .
   a. cannot be determined accurately.
   b. is the same as in 1914.
   c. has increased since 1914.
   d. has decreased since 1914.

17. According to the article, the person who might have the most trouble finding a job would be . . .
   a. an office worker.
   b. a musician or actor.
   c. a skilled worker.
   d. an unskilled worker.

18. According to the article, many jobs have been lost because . . .
   a. labor unions have made too many demands.
   b. of vocational training programs.
   c. foreign workers work more cheaply.
   d. machines have taken the place of some workers.

19. Federal and state governments are trying to find a solution to the unemployment problem by . . .
   a. using the Taft-Hartley Act.
   b. utilizing automation.
   c. starting vocational training programs.
   d. giving more power to the unions.
20. The author of the article describes Labor Day as . . .

a. a special day of hope for the poor.
b. a day for comfortable and meaningful living.
c. a day of rejoicing for all American people.
d. a day which will hopefully be a day of rejoicing for all American workers, rich and poor, someday.
APPENDIX B. "PATRIOTIC HOLIDAYS"

1. Vocabulary Words
2. Prequestion Booklet
3. Postquestion Booklet
4. Interspersed Question Sheets
5. Retention Test
Vocabulary Words

Some of the difficult words in the article have a number beside them like this: word\(^1\). You can find the definition of these words next to the corresponding numbers on this page.

1. **sustain** - keep up; maintain.
2. **veteran** - a person who has had much or long experience, especially as a soldier.
3. **armistice** - agreement to stop fighting for a time.
4. **subsequent** - later, following.
5. **seamstress** - a woman who makes her living by sewing.
6. **nickname** - to give an additional or altered name to someone or something; the nickname for Robert is Bob.
7. **midst** - middle part.
8. **succinctly** - expressed briefly and clearly.
"PATRIOTIC HOLIDAYS"
PREQUESTION BOOKLET
On the next page you will find some questions about an article which you have not yet read. Please read these questions and mark a guess for each question in the booklet. Choose the best answer for each question. You are not supposed to know the answer to these questions before you read the article, but taking a guess at the answer before reading the article could be thought of as a map or a guide to the passage. Your instructor will not look at the answers to these questions. They are to help you learn material which you will be tested on later. When you have read and answered all the questions, open the part of the booklet that contains the article by breaking the seal. Read the instructions on the first page of this section. When you are finished with the article, raise your hand and your instructor will come. He will remove your booklet and give you the test paper. The test will find out how well you remember the answers to the questions. The test will also ask you for some other facts contained in the article.

To summarize:

1. Read each question and mark an answer in the booklet.

2. After you have marked answers for all of the questions, then open the part of the booklet with the reading passage.

3. Read the directions on the first page of the reading passage section.

4. Read the reading passage.

5. When you are finished, raise your hand and the instructor will give you the test.
Patriotic Holidays

1. Independence Day is a happy holiday; another happy patriotic holiday is . . .
   a. Veterans Day.
   b. Decoration Day.
   c. Flag Day.
   d. Armistice Day.

2. Memorial Day now officially honors . . .
   a. soldiers from both the North and South who died in the Civil War.
   b. veterans of all wars.
   c. the veterans of World Wars I and II.
   d. all American soldiers who gave their lives for their country.

3. Memorial Day was at one time called . . .
   a. Armistice Day.
   b. Veterans Day.
   c. Decoration Day.
   d. Independence Day.

4. Another name for Veterans Day is . . .
   a. Decoration Day.
   b. Armistice Day.
   c. Independence Day.
   d. Flag Day.

5. Today Veterans Day honors . . .
   a. all veterans of World War I and the wars which followed.
   b. those who died for their country.
   c. all Americans who have served their country in the military.
   d. the anniversary of the armistice between Germany and the USA.
6. Americans celebrate Flag Day on . . .
   a. November 11.
   c. May 10.
   d. May 30.

7. Americans celebrate Flag Day . . .
   a. as the anniversary of the making of the first American flag.
   b. as the anniversary of the day when the American flag was adopted.
   c. on the birthday of the maker of the first American flag.
   d. on the day when the Declaration of Independence was signed.

8. Betsy Ross lived in . . .
   b. Columbus, Mississippi.
   c. Washington, D.C.

9. The Declaration of Independence was signed . . .
   a. during the Revolutionary War between the USA and England.
   b. after the Revolutionary War between the USA and England.
   c. just before the Revolutionary War between the USA and England.
   d. during the time when George Washington was president.

10. The author of the Declaration of Independence was . . .
    a. Abraham Lincoln.
    b. Betsy Ross.
    d. Thomas Jefferson.

(NOTE: Pages 125 - 129 cannot be read by the subject until the seal on this page has been broken.)
Read the following selection. If you want to, you may correct any of your answers to the questions which you have just answered. Raise your hand when you are finished with the selection and the instructor will give you the test.
Patriotic Holidays

In addition to the birthdays of Lincoln and Washington, Americans celebrate four other patriotic holidays: Memorial Day, Veterans Day, Flag Day, and Independence Day. Memorial Day and Veterans Day are sad occasions; they recall the many lives that have been sacrificed to create and sustain the United States of America as an independent, unified, democratic nation. Flag Day and Independence Day are happy holidays which stimulate national pride in the courage and foresight of the colonists who first formed our country.

Memorial Day, originally established to honor the Civil War dead, now officially honors all American servicemen who gave their lives for their country. Unofficially, the holiday has been extended beyond its military connection to become a day of general tribute to the dead. On Memorial Day, cemeteries are crowded with families who come to place flowers on the graves of their loved ones.

Shortly after the bitter and bloody Civil War between the North and South, the women of Columbus, Mississippi decorated the graves of both Confederate and Union soldiers, thus honoring the war dead who were their enemies along with their defenders. Northerners were touched by this tender gesture and saw it as a symbol of national unity. In 1868, Decoration Day -- now called Memorial Day -- became a legal holiday.

In most states, Memorial Day is celebrated on the last Monday in May or on May 30. However, some Southern states observe Confederate Memorial Day in memory of the soldiers who fought in the Confederate army. This holiday falls on April 26 in Florida and Georgia, on the last Monday in April in Alabama and Mississippi, and on May 10 in North and South Carolina.

The military nature of Memorial Day is evident in the parades and customs which solemnly mark the occasion. Military exercises are held at Gettysburg National Military Park and at the National Cemetery in Arlington, Virginia.
Veterans Day, like Memorial Day, is a solemn occasion honoring servicemen. When this holiday was first celebrated on November 11, 1921, it was called Armistice Day. The date marked the fourth anniversary of the signing of an armistice with Germany; the day was set aside to honor World War I veterans. However, in 1954 President Eisenhower signed a bill extending the significance of the holiday to include veterans of subsequent wars. At that time, the name of the holiday was changed to Veterans Day. Most states now celebrate Veterans Day on the fourth Monday in October.

On Veterans Day, the flag is displayed and veterans march in parades in many communities. Special services are held at the tomb of the Unknown Soldier in Arlington National Cemetery. To Americans, the Unknown Soldier symbolizes all servicemen who have died in defense of their country.
Flag Day, June 14, is the birthday of the American flag. On this date in 1777, the Continental Congress adopted a resolution stating that the flag of the new nation should have 13 horizontal stripes (seven red ones and six white ones) to symbolize the 13 colonies and 13 white stars arranged in a circle to symbolize the unity and equality of these colonies.

In 1776, after the colonies had declared their independence from Great Britain, George Washington and two other revolutionary leaders were assigned the task of designing a national flag. The colors they chose were red for courage, white for liberty, and blue for loyalty. According to American legend, they brought their design to Betsy Ross, a young widow who was an excellent seamstress. She followed their sketch exactly, except for suggesting that the stars be five-pointed rather than six-pointed. Because she made the first American flag, Betsy Ross' name is still well-known to Americans. Her little home in Philadelphia has been preserved as a monument, and tens of thousands of tourists visit it each year.

The American flag has been redesigned many times since Betsy Ross made the original. Today, the flag still contains 13 stripes in honor of the original colonies. But now there are 50 stars (one for each state) arranged in nine rows, alternating with six stars in one row and five in the next. Because of its design, the American flag has been nicknamed the Stars and Stripes.

In school, children memorize and recite the following pledge of allegiance to the flag:

I Pledge allegiance to the flag of the United States of America and to the Republic for which it stands, one nation under God, indivisible, with liberty and justice for all.

This pledge is recited with the right hand held over the heart to indicate love and devotion to the American flag and the nation it represents. Our national anthem, "The Star Spangled Banner," is also a tribute to the flag. It is sung at the opening of most public gatherings.
Independence Day, our most important patriotic holiday celebrates the birth of the nation. In 1776, the 13 American colonies were in the midst of their Revolutionary War against Great Britain. On the 4th of July of that year, the Continental Congress adopted the Declaration of Independence—a document which declared the colonies free and independent states. It is the signing and the significance of this document that Americans remember on July 4.

The Declaration of Independence was written by Thomas Jefferson, who later became the young nation's third President. Its most famous paragraph succinctly sums up the philosophical and political ideals of Americans from colonial days to the present:

We hold these Truths to be self-evident, that all Men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty, and the Pursuit of Happiness—That to secure these Rights, Governments are instituted among Men, deriving their just Powers from the Consent of the Governed.

Since Independence Day is a summer holiday and a day off from work for almost everyone, many families enjoy picnics or beach outings on the Fourth. The occasion is also commemorated by colorful and noisy fireworks displays, parades, and, in some communities, patriotic speeches. The flag is flown and red, white, and blue ribbons are used for decoration at public ceremonies. The army marks the occasion by firing a thirteen-gun salute. Throughout the nation, church bells ring in memory of the Philadelphia Liberty Bell that first proclaimed American independence.
"Patriotic Holidays"
Postquestion Booklet
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To summarize:

1. Read the article.

2. After you have finished reading the article, open the part of the booklet which contains some questions.

3. Read the directions on the first page of the question section.

4. Answer the questions in the booklet.

5. When you are finished, raise your hand and the instructor will give you the test.
PATRIOTIC HOLIDAYS

In addition to the birthdays of Lincoln and Washington, Americans celebrate four other patriotic holidays: Memorial Day, Veterans Day, Flag Day, and Independence Day. Memorial Day and Veterans Day are sad occasions; they recall the many lives that have been sacrificed to create and sustain the United States of America as an independent, unified, democratic nation. Flag Day and Independence Day are happy holidays which stimulate national pride in the courage and foresight of the colonists who first formed our country.

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Shortly after the bitter and bloody Civil War between the North and South, the women of Columbus, Mississippi decorated the graves of both Confederate and Union soldiers, thus honoring the war dead who were their enemies along with their defenders. Northerners were touched by this tender gesture and saw it as a symbol of national unity. In 1868, Decoration Day -- now called Memorial Day -- became a legal holiday.

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On Veterans Day, the flag is displayed and veterans march in parades in many communities. Special services are held at the tomb of the Unknown Soldier in Arlington National Cemetery. To Americans, the Unknown Soldier symbolizes all servicemen who have died in defense of their country.
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In 1776, after the colonies had declared their independence from Great Britain, George Washington and two other revolutionary leaders were assigned the task of designing a national flag. The colors they chose were red for courage, white for liberty, and blue for loyalty. According to American legend, they brought their design to Betsy Ross, a young widow who was an excellent seamstress. She followed their sketch exactly, except for suggesting that the stars be five-pointed rather than six-pointed. Because she made the first American flag, Betsy Ross' name is still well-known to Americans. Her little home in Philadelphia has been preserved as a monument, and tens of thousands of tourists visit it each year.

The American flag has been redesigned many times since Betsy Ross made the original. Today, the flag still contains 13 stripes in honor of the original colonies. But now there are 50 stars (one for each state) arranged in nine rows, alternating with six stars in one row and five in the next. Because of its design, the American flag has been nicknamed the Stars and Stripes.

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Independence Day, our most important patriotic holiday celebrates the birth of the nation. In 1776, the 13 American colonies were in the midst of their Revolutionary War against Great Britain. On the 4th of July of that year, the Continental Congress adopted the Declaration of Independence—a document which declared the colonies free and independent states. It is the signing and the significance of this document that Americans remember on July 4.

The Declaration of Independence was written by Thomas Jefferson, who later became the young nation's third President. Its most famous paragraph succinctly sums up the philosophical and political ideals of Americans from colonial days to the present:

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Since Independence Day is a summer holiday and a day off from work for almost everyone, many families enjoy picnics or beach outings on the Fourth. The occasion is also commemorated by colorful and noisy fireworks displays, parades, and, in some communities, patriotic speeches. The flag is flown and red, white, and blue ribbons are used for decoration at public ceremonies. The army marks the occasion by firing a thirteen-gun salute. Throughout the nation, church bells ring in memory of the Philadelphia Liberty Bell that first proclaimed American independence.

(NOTE: Pages 136 - 138 cannot be read by the subject until the seal on this page has been broken.)
Answer the questions on the next page. Mark your answers in the booklet. You may refer to the article to find the answers if you want to. Raise your hand when you are finished with the questions and the instructor will give you the test.
PATRIOTIC HOLIDAYS

1. Independence Day is a happy holiday; another happy patriotic holiday is . . .
   a. Veterans Day.
   b. Decoration Day.
   c. Flag Day.
   d. Armistice Day.

2. Memorial Day now officially honors . . .
   a. soldiers from both the North and South who died in the Civil War.
   b. veterans of all wars.
   c. the veterans of World Wars I and II.
   d. all American soldiers who gave their lives for their country.

3. Memorial Day was at one time called . . .
   a. Armistice Day.
   b. Veterans Day.
   c. Decoration Day.
   d. Independence Day.

4. Another name for Veterans Day is . . .
   a. Decoration Day.
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   c. Independence Day.
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5. Today Veterans Day honors . . .
   a. all veterans of World War I and the wars which followed.
   b. those who died for their country.
   c. all Americans who have served their country in the military.
   d. the anniversary of the armistice between Germany and the USA.
6. Americans celebrate Flag Day on . . .
   a. November 11.
   c. May 10.
   d. May 30.

7. Americans celebrate Flag Day . . .
   a. as the anniversary of the making of the first American flag.
   b. as the anniversary of the day when the American flag was adopted.
   c. on the birthday of the maker of the first American flag.
   d. on the day when the Declaration of Independence was signed.

8. Betsy Ross lived in . . .
   b. Columbus, Mississippi.
   c. Washington, D.C.

9. The Declaration of Independence was signed . . .
   a. during the Revolutionary War between the USA and England.
   b. after the Revolutionary War between the USA and England.
   c. just before the Revolutionary War between the USA and England.
   d. during the time when George Washington was president.

10. The author of the Declaration of Independence was . . .
    a. Abraham Lincoln.
    b. Betsy Ross.
    d. Thomas Jefferson.
"PATRIOTIC HOLIDAYS"
INTERSPERSED QUESTION SHEETS
You have just been given two envelopes. Envelope Number 1 has some papers in it; Envelope Number 2 is empty. You are to take the first sheet out of Envelope Number 1 and read it. If there are questions on that paper, mark the answers on that sheet. You may look for the answer in the passage. Choose the best answer for each question. Your instructor will not look at the answers to these questions. They are to help you learn material which you will be tested on later. When you have answered the questions, put the sheet into Envelope Number 2.

Do not go back to it or refer to it again. When you have finished all the sheets in the first envelope, raise your hand and the instructor will come. He will remove the envelopes and give you your test paper. The test will find out how well you remember the answers to the questions. The test will also ask you for some other facts contained in the article.

To summarize:

1. Take the first sheet out of Envelope Number 1.
2. Read it and answer any questions on that sheet.
3. After you have read the material and have answered the questions on the sheet, put the sheet into Envelope Number 2.
4. Take out the next sheet from Envelope Number 1.
5. When you have read all the sheets, raise your hand and the instructor will give you the test.
6. Do not go back to any material in Envelope Number 2.
PATRIOTIC HOLIDAYS

In addition to the birthdays of Lincoln and Washington, Americans celebrate four other patriotic holidays: Memorial Day, Veterans Day, Flag Day, and Independence Day. Memorial Day and Veterans Day are sad occasions; they recall the many lives that have been sacrificed to create and sustain the United States of America as an independent, unified, democratic nation. Flag Day and Independence Day are happy holidays which stimulate national pride in the courage and foresight of the colonists who first formed our country.

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   a. soldiers from both the North and South who died in the Civil War.
   b. veterans of all wars.
   c. the veterans of World Wars I and II.
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   a. Decoration Day.
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5. Today Veterans Day honors . . .
   a. all veterans of World War I and the wars which followed.
   b. those who died for their country.
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   d. the anniversary of the armistice between Germany and the USA.

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6. Americans celebrate Flag Day on . . .
   a. November 11.
   c. May 10.
   d. May 30.

7. Americans celebrate Flag Day . . .
   a. as the anniversary of the making of the first
      American flag.
   b. as the anniversary of the day when the American
      flag was adopted.
   c. on the birthday of the maker of the first
      American flag.
   d. on the day when the Declaration of Independence
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8. Betsy Ross lived in . . .
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The Declaration of Independence was written by Thomas Jefferson, who later became the young nation's third President. Its most famous paragraph succinctly sums up the philosophical and political ideals of Americans from colonial days to the present:

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9. The Declaration of Independence was signed . . .
   a. during the Revolutionary War between the USA and England.
   b. after the Revolutionary War between the USA and England.
   c. just before the Revolutionary War between the USA and England.
   d. during the time when George Washington was president.

10. The author of the Declaration of Independence was . . .
   a. Abraham Lincoln.
   b. Betsy Ross.
   d. Thomas Jefferson.

(Note: This page was stapled to the preceding page.)
"PATRIOTIC HOLIDAYS"

RETENTION TEST
PATRIOTIC HOLIDAYS

Directions - Read each question and choose the best answer according to what you have read in the article. Mark your answers on the computer sheet which your instructor has given you.

1. An example of a happy patriotic holiday is . . .
   a. Decoration Day.
   b. Flag Day.
   c. Armistice Day.
   d. Veterans Day.

2. Memorial Day is now a special day for . . .
   a. veterans of all wars.
   b. soldiers from both the North and South who died for their country.
   c. the veterans of World Wars I and II.
   d. soldiers who have died for their country.

3. Memorial Day was first celebrated in . . .
   a. Alabama.
   b. Georgia.
   c. Mississippi.
   d. South Carolina.

4. The National Cemetery is located in . . .
   b. Columbus, Mississippi.
   c. Washington, D.C.
   c. Arlington, Virginia.

5. An old name for Memorial Day is . . .
   a. Armistice Day.
   b. Decoration Day.
   c. Independence Day.
   d. Veterans Day.
6. At the time the article was written, Memorial Day was celebrated . . .
   a. in memory of the soldiers who fought in the Confederate Army.
   b. as a happy occasion.
   c. only in the South.
   d. at different times in certain places in the USA.

7. Veterans Day was at one time called . . .
   a. Flag Day.
   b. Independence Day.
   c. Armistice Day.
   d. Decoration Day.

8. Veterans Day now honors . . .
   a. the anniversary of the armistice between Germany and the USA.
   b. veterans who died for their country.
   c. all Americans who have been in military service.
   d. people who fought in World War I and the following wars.

9. The Unknown Soldier is buried in . . .
   b. Columbus National Cemetery.
   c. Arlington National Cemetery.

10. You might hear church bells ringing on . . .
    a. Independence Day.
    b. Veterans Day.
    c. Flag Day.
    d. Memorial Day.

11. Flag Day is celebrated on . . .
    a. November 11.
    b. May 30.
    c. May 10.
    d. June 14.
12. Flag Day is celebrated . . .
   a. as the anniversary of the signing of the
      Declaration of Independence.
   b. as the anniversary of the adoption of the
      American flag.
   c. on the birthday of the maker of the first
      American flag.
   d. as the anniversary of the making of the first
      American flag.

13. The color white in the American flag stands for . . .
   a. liberty.
   b. loyalty.
   c. purity.
   d. courage.

14. You could find the home of Betsy Ross in . . .
   a. Washington, D.C.
   c. Arlington, Virginia.
   d. Columbus, Mississippi.

15. The maker of the first American flag suggested that,
as a part of its design, the American flag should . . .
   a. have five-pointed stars.
   b. have white stars.
   c. be red, white, and blue.
   d. have stars arranged in a circle.

16. According to the article, Americans say the Pledge of
    Allegiance . . .
   a. only in school.
   b. with the right hand over the heart.
   c. before the "Star Spangled Banner" is sung.
   d. mainly on patriotic occasions.
17. Members of the Congress signed the Declaration of Independence . . .
   a. just before the Revolutionary War between the USA and England.
   b. after the Revolutionary War between the USA and England.
   c. during the Revolutionary War between the USA and England.
   d. during the presidency of George Washington.

18. The person who wrote the Declaration of Independence was . . .
   a. Abraham Lincoln.
   b. Thomas Jefferson.
   d. Betsy Ross.

19. George Washington was the first president of the USA. Thomas Jefferson was the . . .
   a. second president of the USA.
   b. third president of the USA.
   c. fourth president of the USA.
   d. fifth president of the USA.

20. President Eisenhower changed the name of . . .
   a. Independence Day.
   b. Flag Day.
   c. Decoration Day.
   d. Armistice Day.
APPENDIX C. "RELIGION IN AMERICAN LIFE"

1. Vocabulary Words
2. Prequestion Booklet
3. Postquestion Booklet
4. Interspersed Question Sheets
5. Retention Test
RELIGION IN AMERICAN LIFE

Vocabulary Words

Some of the difficult words in the article have a number beside them like this: word\textsuperscript{1}. You can find the definition of these words next to the corresponding numbers on this page.

1. diversity - variety; being of different kinds.
2. dominant - most important or influential.
3. sect - group of people holding a particular set of religious opinions.
5. subsidy - money given by the government to a company or group.
6. secular - concerned with everyday matters rather than those of the church.
7. denomination - name of a particular class or kind; a group of people holding certain special beliefs about God or religion.
8. thrive - be successful; grow strong and fat.
9. daily - a newspaper published every day or every weekday.
10. parochial - having to do with a parish (parish = a piece of country served by one church.)
11. potent - very strong.
12. synagogue - house of prayer of the Jews.
13. hereafter - the life which we hope to experience after we die.
14. endeavor - effort; attempt.
15. initiative - quality or power of starting new courses of action; taking the first step.
16. parishioners - one who lives in a parish (parish = a piece of country served by one church).
"RELIGION IN AMERICAN LIFE"

PREQUESTION BOOKLET
On the next page you will find some questions about an article which you have not yet read. Please read these questions and mark a guess for each question in the booklet. Choose the best answer for each question. You are not supposed to know the answer to these questions before you read the article, but taking a guess at the answer before reading the article could be thought of as a map or a guide to the passage. Your instructor will not look at the answers to these questions. They are to help you learn material which you will be tested on later. When you have read and answered all the questions, open the part of the booklet that contains the article by breaking the seal. Read the instructions on the first page of this section. When you are finished with the article, raise your hand and your instructor will come. He will remove your booklet and give you the test paper. The test will find out how well you remember the answers to the questions. The test will also ask you for some other facts contained in the article.

To summarize:

1. Read each question and mark an answer in the booklet.

2. After you have marked answers for all of the questions, then open the part of the booklet with the reading passage.

3. Read the directions on the first page of the reading passage section.

4. Read the reading passage.

5. When you are finished, raise your hand and the instructor will give you the test.
RELIGION IN AMERICAN LIFE

1. According to the article, the major characteristic of religion in America is . . .
   a. church attendance.
   b. integration with government.
   c. diversity.
   d. uniformity.

2. In America there are about . . .
   a. 69 different religious sects.
   b. 250 different religious sects.
   c. 3 different religious sects.
   d. 95 different religious sects.

3. The document which states that religion and government in the United States must be separate is the . . .
   a. Declaration of Independence.
   b. Constitution.
   c. Bill of Rights.
   d. First Amendment to the Constitution.

4. Two religious sects which were first established in the United States are . . .
   b. Mormonism and Sectarianism.
   d. Catholicism and Mormonism.

5. Mary Baker Eddy started . . .
   a. Deism.
   b. Mormonism.
   c. Sectarianism.
6. The single largest religious body in the USA is the . . .
   a. Protestants.
   b. Christian Scientists.
   c. Roman Catholics.
   d. Presbyterians.

7. According to the author, religion as an influence on the lives of most Americans is . . .
   a. increasing.
   b. remaining the same.
   c. remaining negligible.
   d. decreasing.

8. The author says that church attendance in America has . . .
   a. remained the same in recent years.
   b. had its ups and downs in recent years.
   c. decreased in recent years.
   d. increased in recent years.

9. The author says that the modern American . . .
   a. worries about the future of his soul in the hereafter.
   b. is more interested in the hereafter than the present.
   c. is more interested in the present than the hereafter.
   d. does not care about the hereafter.

    a. seems to be decreasing.
    b. is increasing.
    c. is unusual.
    d. is remaining stable.

(NOTE: Pages 160 - 165 cannot be read by the subject until the seal on this page has been broken.)
Read the following selection. If you want to, you may correct any of your answers to the questions which you have just answered. Raise your hand when you are finished with the selection and the instructor will give you the test.
RELIGION IN AMERICAN LIFE

Diversity\(^1\) -- that is the dominant\(^2\) characteristic of religion in the United States. Although Christianity has always been the major American faith, the existence of more than 250 different religious sects\(^3\) here has forced Americans to be tolerant of all forms of worship -- Christian and non-Christian.

Many immigrants came to the American colonies to escape religious persecution\(^4\). Therefore, it was natural that the nation's founders demanded legal guarantees of religious freedom. The First Amendment to the Constitution forbids the establishment of an official national religion and prohibits government subsidies\(^5\) to religious groups. It also prohibits states or federal interference with religious institutions or practices, so long as these are not in violation of secular\(^6\) laws.

Americans have a nonsectarian government, but not an atheistic one. "We are a religious people whose institutions presuppose a Supreme Being," said U.S. Supreme Court Justice William O. Douglas. This faith is evident in many official customs and acts. For example, sessions of Congress and state legislatures begin with prayers. In court, when witnesses swear to tell the truth, they are asked to place one hand on the Bible. Our national motto is "In God we trust," and our pledge of allegiance to the flag declares that this is "one nation under God."

Almost two-thirds of Americans are members of an organized religious group. Of these, about 95 percent are Christians and nearly 5 percent are Jews. Only a small number of Americans belong to other faiths. Approximately two-thirds of American Christians are Protestants (about 69 million people). American Protestantism is divided into more than 200 different denominations\(^7\), most of them with fewer than 50,000 members. Only about 18 Protestant sects claim a membership as large as 500,000. The major Protestant bodies all having memberships of several million, are the Baptists, Methodists, Lutherans, and Presbyterians.
Two interesting Protestant sects founded in the United States are the Mormons and the Christian Scientists. The Mormons (officially known as the Church of Jesus Christ of Latter-day Saints) were organized in New York in 1830. Because they practiced polygamy (plural marriage), they were forced out of several established communities. So they traveled westward and settled in the unpopulated valley of the Great Salt Lake, where they built a thriving community. Then the federal government passed antipolygamy laws and refused to admit Utah as a state until 1896, after the Mormons had discontinued the practice. Today there are two million Mormons in the U.S.A. Most of them live in Utah and in eastern Idaho, where they are the dominant religious sect, but many reside in other western states.

The Christian Science Church was founded by Mary Baker Eddy in 1879. Christian Scientists believe that since man is wholly spiritual, healing of sickness results from spiritual understanding rather than from medical treatment. The Christian Science movement now has more than 3,200 churches in 46 countries. Its newspaper, the Christian Science Monitor, is considered one of the world's finest dailies.

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The third major religion in the United States is Judaism. About 5.7 million Americans are members of Jewish congregations. There are three major denominations in Judaism: Orthodox, Conservative, and Reform. During the Sabbath, which is observed from sundown Friday until sundown Saturday, Orthodox Jews do not ride or conduct business. Jewish tradition imposes certain dietary restrictions, prohibiting pork and certain seafoods and forbidding the serving of milk products at meals which include meat or poultry. Reform Judaism does not impose these restrictions.

How potent is religion in the United States today? Because it provides individuals and families with an identity and a social group, religion plays a large role in the lives of many Americans. But in terms of influencing behavior and philosophical outlook, religion has declined in importance.

Identification with a religious group gives the individual a feeling of belonging and a secure, clear place within the otherwise impersonal urban community. Social groups, close friendships, and marriages are usually formed with members of one's own religion. As elsewhere, in the United States religion provides the customs and ceremonies that mark life's most important events -- birth, coming of age, marriage, and death. But American churches and synagogues are not only places where prayers are recited and ceremonies conducted. They are also community centers where educational, cultural, social, and charitable activities are held.

Perhaps because religion is an important social force, religious membership has increased greatly during the past half century. In 1910, 43 percent of the population were members of churches, in 1962, 62 percent. However, there are other indications that religion is actually losing its hold upon Americans. For one thing, church attendance has declined in recent years. Perhaps even more significant, results of a survey taken in the early 1950's showed that only 14 percent of Americans believed religion was losing its influence. Now the figure is 45 percent and for college people, 62 percent.
When Americans need personal advice, more and more they are turning to psychiatrists rather than to ministers. The twentieth century has often been called a secular age, and certainly it is in the U.S.A. Belief in a personal God, concern for God's judgment of one's behavior, concern about the afterlife -- all seem to be declining.

The modern American seems less worried about saving his soul for the hereafter and more interested in improving his life on earth. In this endeavor Americans have a strong faith in their ability to improve conditions through their own efforts. Ben Franklin said, "God helps them that help themselves." During World War II, the same idea was expressed as "Praise the Lord and pass the ammunition." In other words, Americans do not believe in passively accepting whatever seems to be God's will; they count upon their own initiative to get what they want.

Of course, generalizations about religious attitudes can be misleading because religious outlook varies quite a bit depending upon one's age group, social class, degree of education, and region of the country. Probably, religion exercises a greater control over the behavior of Catholics than of Protestants or Jews. The rising rate of interfaith marriages suggests that religious differences are less significant to this generation of young adults than to their parents' generation. Religion seems to have a greater emotional grip upon the poor and uneducated than upon the affluent and educated. In the southern part of the country, often called the Bible Belt, parishioners are generally more traditional in their attitudes toward religion than is the rest of the nation.

If religious faith is not a major positive force in the U.S.A., neither is it a negative one. Religious tolerance is greater than ever before. Membership in a particular church rarely prevents a person's educational or professional
advancement. The barriers between various faiths seem to be lowering. When American attitudes toward racial minorities become as liberal as current attitudes toward religious minorities, the United States will have taken another big step toward the realization of its ideals.
On the next page you will find an article which you are to read. When you have finished reading the passage, open the part of the booklet that contains some questions by breaking the seal. Read the instructions on the first page of this section. Choose the best answer for each question. Your instructor will not look at the answers to these questions. They are to help you learn material which you will be tested on later. When you have finished, raise your hand and your instructor will come. He will take your booklet and give you the test paper. The test will find out how well you remember the answers to the questions. The test will also ask you for some other facts contained in the article.

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RELIGION IN AMERICAN LIFE

1. According to the article, the major characteristic of religion in America is . . .
   a. church attendance.
   b. integration with government.
   c. diversity.
   d. uniformity.

2. In America there are about . . .
   a. 69 different religious sects.
   b. 250 different religious sects.
   c. 3 different religious sects.
   d. 95 different religious sects.

3. The document which states that religion and government in the United States must be separate is the . . .
   a. Declaration of Independence.
   b. Constitution.
   c. Bill of Rights.
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4. Two religious sects which were first established in the United States are . . .
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    a. seems to be decreasing.
    b. is increasing.
    c. is unusual.
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"RELIGION IN AMERICAN LIFE"
INTERSPERSED QUESTION SHEETS
You have just been given two envelopes. Envelope Number 1 has some papers in it; Envelope Number 2 is empty. You are to take the first sheet out of Envelope Number 1 and read it. If there are questions on that paper, mark the answers on that sheet. You may look for the answer in the passage. Choose the best answer for each question. Your instructor will not look at the answers to these questions. They are to help you learn material which you will be tested on later. When you have answered the questions, put the sheet into Envelope Number 2. Do not go back to it or refer to it again. When you have finished all the sheets in the first envelope, raise your hand and the instructor will come. He will remove the envelopes and give you your test paper. The test will find out how well you remember the answers to the questions. The test will also ask you for some other facts contained in the article.

To summarize:

1. Take the first sheet out of Envelope Number 1.
2. Read it and answer any questions on that sheet.
3. After you have read the material and have answered the questions on the sheet, put the sheet into Envelope Number 2.
4. Take out the next sheet from Envelope Number 1.
5. When you have read all the sheets, raise your hand and the instructor will give you the test.
6. Do not go back to any material in Envelope Number 2.
RELIGION IN AMERICAN LIFE

Diversity is the dominant characteristic of religion in the United States. Although Christianity has always been the major American faith, the existence of more than 250 different religious sects here has forced Americans to be tolerant of all forms of worship -- Christian and non-Christian.

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Identification with a religious group gives the individual a feeling of belonging and a sure, clear place within the otherwise impersonal urban community. Social groups, close friendships, and marriages are usually formed with members of one's own religion. As elsewhere, in the United States religion provides the customs and ceremonies that mark life's most important events -- birth, coming of age, marriage, and death. But American churches and synagogues are not only places where prayers are recited and ceremonies conducted. They are also community centers where educational, cultural, social, and charitable activities are held.

Perhaps because religion is an important social force, religious membership has increased greatly during the past half century. In 1910, 43 percent of the population were members of churches, in 1962, 62 percent. However, there are other indications that religion is actually losing its hold upon Americans. For one thing, church attendance has declined in recent years. Perhaps even more significant, results of a survey taken in the early 1950's showed that only 14 percent of Americans believed religion was losing its influence. Now the figure is 45 percent and for college people, 62 percent.
When Americans need personal advice, more and more they are turning to psychiatrists rather than to ministers. The twentieth century has often been called a secular age, and certainly it is in the U.S.A. Belief in a personal God, concern for God's judgment of one's behavior, concern about the afterlife -- all seem to be declining.

7. According to the author, religion as an influence on the lives of most Americans is . . .
   a. increasing.
   b. remaining the same.
   c. remaining negligible.
   d. decreasing.

8. The author says that church attendance in America has . . .
   a. remained the same in recent years.
   b. had its ups and downs in recent years.
   c. decreased in recent years.
   d. increased in recent years.

(NOTE: This page was stapled to the preceding page.)
The modern American seems less worried about saving his soul for the hereafter and more interested in improving his life on earth. In this endeavor Americans have a strong faith in their ability to improve conditions through their own efforts. Ben Franklin said, "God helps them that help themselves." During World War II, the same idea was expressed as "Praise the Lord and pass the ammunition." In other words, Americans do not believe in passively accepting whatever seems to be God's will; they count upon their own initiative to get what they want.

Of course, generalizations about religious attitudes can be misleading because religious outlook varies quite a bit depending upon one's age group, social class, degree of education, and region of the country. Probably, religion exercises a greater control over the behavior of Catholics than of Protestants or Jews. The rising rate of interfaith marriages suggests that religious differences are less significant to this generation of young adults than to their parents' generation. Religion seems to have a greater emotional grip upon the poor and uneducated than upon the affluent and educated. In the southern part of the country, often called the Bible Belt, parishioners are generally more traditional in their attitudes toward religion than is the rest of the nation.

If religious faith is not a major positive force in the U.S.A., neither is it a negative one. Religious tolerance is greater than ever before. Membership in a particular church rarely prevents a person's educational or professional advancement. The barriers between various faiths seem to be lowering. When American attitudes toward racial minorities become as liberal as current attitudes toward religious minorities, the United States will have taken another big step toward the realization of its ideals.
9. The author says that the modern American . . .
   a. worries about the future of his soul in the hereafter.
   b. is more interested in the hereafter than the present.
   c. is more interested in the present than the hereafter.
   d. does not care about the hereafter.

    a. seems to be decreasing.
    b. is increasing.
    c. is unusual.
    d. is remaining stable.
"RELIGION IN AMERICAN LIFE"

RETENTION TEST
RELIGION IN AMERICAN LIFE

Directions - Read each question and choose the best answer according to what you have read in the article. Mark your answers on the computer sheet which your instructor has given you.

1. The article says that in the USA . . .
   a. all churches are very much alike.
   b. there are many different religious sects.
   c. nearly everyone goes to church regularly.
   d. the government subsidizes the church.

2. The number of different religious sects in the USA is approximately . . .
   a. 95.
   b. 69.
   c. 3.
   d. 250.

3. Religion and government in the United States must be separate. This guarantee is found in the . . .
   a. Bill of Rights.
   b. First Amendment to the Constitution.
   c. Declaration of Independence.
   d. Constitution.

4. The United States was founded as . . .
   a. a church-directed nation.
   b. an intolerant nation.
   c. an atheistic nation.
   d. a non-sectarian nation.

5. According to the article, the percentage of members of religions other than Christians or Jews is . . .
   a. small.
   b. moderate.
   c. large.
   d. very large.
6. According to the article we can find religious groups with over 500,000 members in only about . . .
   a. 8 Protestant sects.
   b. 28 Protestant sects.
   c. 80 Protestant sects.
   d. 18 Protestant sects.

7. Two religious sects which were founded in America are . . .
   b. Catholicism and Mormonism.
   d. Mormonism and Sectarianism.

8. Utah was not admitted as a state until . . .
   a. the Mormons had left the state.
   b. polygamy was begun.
   c. 1869.
   d. certain Mormon practices were stopped.

9. The religion which Mary Baker Eddy founded is . . .
   b. Deism.
   c. Sectarianism.
   d. Mormonism.

10. The article mentions a church newspaper published by the . . .
    a. Roman Catholic church.
    b. Baptist church.
    c. Mormon church.
11. Most religious people in the United States are . . .
   a. Baptist.
   b. Jewish.
   c. Catholic.
   d. Protestant.

12. The article says that the largest unified religious group in the United States is the . . .
   b. Protestants.
   c. Presbyterians.
   d. Roman Catholics.

13. The third major religious group in America is . . .
   a. Catholicism.
   b. Protestantism.
   c. Mormonism.
   d. Judiasm.

14. The author says that the influence of religion on American life is . . .
   a. becoming stronger.
   b. becoming weaker.
   c. remaining the same.
   d. staying negligible.

15. According to the article, religions offer Americans . . .
   a. chance to save their souls.
   b. way to obey the law.
   c. chance to feel they belong to a group.
   d. place to find political power.
16. The author says that the numbers of people that can be found in church have . . .
   a. fluctuated in recent years.
   b. increased in recent years.
   c. decreased in recent years.
   d. remained stable.

17. According to the article the modern American is . . .
   a. more interested in what happens to him after he dies than what happens to him on earth.
   b. disinterested in the hereafter.
   c. very concerned for his soul.
   d. more interested in what happens to him on earth than what happens to him after he dies.

18. In comparison with churchmembers in the rest of the country, churchmembers in the Bible Belt can be described as more . . .
   a. liberal.
   b. traditional.
   c. numerous.
   d. educated.

19. The author of the article considers the influence of religion in the USA to be . . .
   a. liberal.
   b. neither positive nor negative.
   c. positive
   d. negative.

20. In America religious tolerance . . .
   a. is remaining the same.
   b. is increasing.
   c. is not common.
   d. appears to be decreasing.
APPENDIX D. "LABOR DAY"

1. Vocabulary Words
2. Prequestion Booklet
3. Postquestion Booklet
4. Interspersed Question Sheets
5. Retention Test
LABOR DAY

Vocabulary Words

Some of the difficult words in the article have a number beside them like this: word\(^1\). You can find the definition of these words next to the corresponding numbers on this page.

1. **prohibit** - forbid; say that something must not be done.
2. **restriction** - being kept within limits.
3. **perseverance** - constant effort to achieve something.
4. **median** - middle.
5. **influx** - constant flow of large numbers or quantities.
6. **expenditures** - spending or using.
7. **disabled (person)** - a person who is not able to do something; a handicapped person.
8. **fluctuate** - move up and down; be irregular.
9. **obsolete** - no longer used; out of date.
10. **vocational** - having to do with a person's trade or profession.
11. **subsidize** - when a government or a society gives money to an industry or cause, they subsidize this cause or industry.
"LABOR DAY"

PREQUESTION BOOKLET
On the next page you will find some questions about an article which you have not yet read. Please read these questions and mark a guess for each question in the booklet. Choose the best answer for each question. You are not supposed to know the answer to these questions before you read the article, but taking a guess at the answer before reading the article could be thought of as a map or a guide to the passage. Your instructor will not look at the answers to these questions. They are to help you learn material which you will be tested on later. When you have read and answered all the questions, open the part of the booklet that contains the article by breaking the seal. Read the instructions on the first page of this section. When you are finished with the article, raise your hand and your instructor will come. He will remove your booklet and give you the test paper. The test will find out how well you remember the answers to the questions. The test will also ask you for some other facts contained in the article.

To summarize:

1. Read each question and mark an answer in the booklet.

2. After you have marked answers for all of the questions, then open the part of the booklet with the reading passage.

3. Read the directions on the first page of the reading passage section.

4. Read the reading passage.

5. When you are finished, raise your hand and the instructor will give you the test.
LABOR DAY

1. The first Labor Day celebration was in the year . . .
   a. 1892.
   b. 1859.
   c. 1895.
   d. 1852.

2. On Labor Day we think about all the progress made by . . .
   a. small business.
   b. the social security system.
   c. organized labor unions.
   d. federal legislation.

3. The union's way of stating its complaint to the public while its members are striking is by . . .
   a. subsidizing.
   b. persevering.
   c. picketing.
   d. fluctuating.

4. The power of the unions is controlled by . . .
   a. the Civil Rights Act of 1965.
   b. the Constitution.
   c. the Bill of Rights.
   d. the Taft-Hartley Act.

5. The amount of money earned by a family had risen in 1968 partly because . . .
   a. children had taken part-time jobs.
   b. many married women had begun working.
   c. the Taft-Hartley Act required it.
   d. the unions had put pressure on industry.
6. Medical care, housing and food cost the American . . .
   a. 70 percent of his family income.
   b. 65 percent of his family income.
   c. 60 percent of his family income.
   d. 55 percent of his family income.

7. The article says that unemployed people who get a pension from the federal government . . .
   a. receive a generous amount of money.
   b. are given enough money for basic needs.
   c. receive too much money.
   d. cannot exist on this money.

8. According to the article, the percentage of poverty-level families . . .
   a. cannot be accurately determined.
   b. has increased since 1914.
   c. has decreased since 1914.
   d. is the same as in 1914.

9. The article says that jobs are hard to find for . . .
   a. office workers.
   b. unskilled workers.
   c. workers who have very specialized skills.
   d. musicians or actors.

10. Federal and state governments are trying to solve the unemployment problem by . . .
    a. hindering automation.
    b. the Taft-Hartley Act.
    c. vocational training.
    d. giving more power to unions.

(NOTE: Pages 197 - 203 cannot be read by the subject until the seal on this page has been broken.)
Read the following selection. If you want to, you may correct any of your answers to the questions which you have just answered. Raise your hand when you are finished with the selection and the instructor will give you the test.
LABOR DAY

The story of Labor Day began in the nineteenth century with the dream of a carpenter named Peter J. McGuire. McGuire was born in 1852, long before the United States had laws prohibiting child labor. He was the tenth child in a poor family. To help support his brothers and sisters, he went to work in a furniture factory when he was only eleven years old. He grew up to become a carpenter and eventually the president of the national union of carpenters.

McGuire was well-aquainted with the satisfaction and the suffering that accompanies hard work. He wanted to establish a holiday "to honor the industrial spirit, the great vital force of this nation." At his suggestion, the first Labor Day celebration was held in New York in 1892.

Labor Day is celebrated on the first Monday in September. Many families go away to vacation areas for a final summer vacation over that three-day weekend just before school starts.

The achievements which Americans commemorate on Labor Day are primarily those of the labor unions. For more than 100 years, unions have been struggling to help their members. Pressure exerted by them has forced the passage of federal legislation to protect employees. Most workers are protected by a federal minimum hourly wage. A federal statute prohibits wage discrimination on the basis of sex; a woman is entitled to a salary equal to a man's when she performs a similar job. State laws, which vary from one state to another, limit the number of hours per week that a woman may work and prohibit her from doing certain types of heavy work. In most states children under fourteen are not allowed to hold jobs, though there are a few exceptions to this restriction so that youngsters may deliver newspapers or work as entertainers.
American unions have fought continuously for higher wages, a shorter work week, extra pay for overtime work, paid vacations, sick leave, health insurance, pension plans and safe, sanitary working conditions. Now, unions are supporting the concept of the guaranteed annual income. Thanks to the perseverance of organized labor, the American worker is one of the best paid and best cared for in the world. About 19 million persons -- more than one-fourth of the non-agricultural workers in the United States -- belong to labor unions. There are unions for miners, musicians, teachers, janitors, nurses, plumbers and dozens of other occupational groups and industries.

In attempting to achieve its goals, a union may employ the most powerful weapon that it possesses; the strike. A strike occurs when union members decide that they will not return to work until their employer gives in to some or all of their demands. Workers on strike picket their employer by walking back and forth in front of his place of business, carrying signs stating their complaints. The custom of picketing has now been adopted by other protest groups to make known their disapproval of particular policies of government or industry.

There are now more than 200 national unions in the United States. As unions grew in size and number, federal legislation was needed to protect business and the national economy from the dominance of organized labor. In 1947, the Taft-Hartley Labor Act was passed to help maintain a balance of power between labor and management.
Today, the American worker has good reason to celebrate Labor Day. Compared to his grandfather, the typical American worker is rich. In 1914, the median family income was about $2,500 (in dollars of 1964 purchasing power). By 1968, the median family income had risen to around $3,600. This big jump in family income was due, in part, to the influx of married women into the labor market. Women make up about 35 percent of the nation's 79 million workers. About 35 percent of the country's married women work, and about 10 percent have year-round, full-time jobs. While family income has soared, so has individual income. Before World War I, the average American factory worker earned the 1968 equivalent of $26 a week; today, he earns approximately $120 per week while working about 2 hours less.

Compared to workers in other nations, the typical American worker is also rich. The average American must work 12 minutes to earn enough money to buy a dozen eggs. To make the same purchase, the average Englishman works about 60 minutes, the Frenchman 108 minutes. In Moscow, the average man works 13 hours to buy a cotton shirt; the New Yorker works 1.7 hours. American purchasing power is about five or six times as high as the world's average, about twice that of Western Europe, and about ten times that of Asia.

The population of the United States, about 200 million, is only 6 percent of the world total. Yet these 6 percent make, buy, sell, and use more than one-third of the world's output of goods and services. Americans produce and consume more than any other nation. The American family spends about 60 percent of its income on food, housing, and medical care. The rest is available for clothing, automobiles, hobbies, education, vacations, insurance, and savings. Nearly 80 percent of American families own automobiles; 99 percent have electricity in their homes.
The average work week is shorter for Americans than for Europeans. The 40 hour week (8 hours per day, five days a week) is standard, though in various industries regular full-time employment ranges from 35 to 42 hours per week. Most employees are paid at a higher hourly rate when they work overtime.

About 95 percent of American industrial workers enjoy paid vacations. Nearly 25 percent of them get three weeks off with pay. Accompanying an increase in paid vacations has been an enormous increase in leisure-time activities and expenditures.

Employees and employers pay a social security tax to the federal government. This tax provides pensions for retired workers. Male workers who retire can receive monthly social security checks at age 65; women become eligible at age 62. Social security benefits have been increased periodically as the nation's standard of living has climbed. Although benefits are not over-generous, they do provide the elderly with funds for essential needs.

For most Americans, Labor Day is an occasion to pause and count their blessings. Unfortunately, the total picture of the American economy contains some dark spots. The United States is the most prosperous nation in the world but in the midst of prosperity for the majority, about 30 million Americans are living below what the federal government considers the poverty level. (Urban families of four with incomes under $3,335 and individuals with incomes below $1,500 are considered poor.) The percentage of poverty level American families has declined from about 60 percent in 1914 to about 15 percent today. Nonetheless, there is deep national concern about the deprivation of the poor.
Who are the poor in America, and why are they poor? Most poor Americans fall into one or more of the following categories: the elderly retired, the disabled, unskilled workers and their families, the uneducated, and the unemployed. Although federal funds are provided for the elderly and disabled, these benefits are small. The unemployed person living on a federal pension must budget himself very strictly. Although blacks comprise only about 11 percent of the national population, they constitute 20 percent of the poor. In 1966, 32 percent of non-white families had incomes under $3,000; only 13 percent of white families had incomes that low. In 1968, more than 40 percent of America's non-whites were living below the poverty level.

In the United States, jobs are plentiful for most skilled industrial workers and for educated clerical workers and professional people. But in some parts of the country, the unskilled worker has difficulty holding a full-time, year-round position. The unemployment rate fluctuates between 3 and 4 percent. This figure indicates the percentage of people between the ages of 16 and 65 who seek employment and cannot find it. Automation has stolen jobs from thousands of workers as factories continue to replace more and more men with machines. Workers who are unskilled or who possess obsolete skills must be trained for new types of work.

In recent years, national attention has been focused on the impoverished American. Federal, state, and local programs have been created to offer vocational training to the unemployable. Also, young people are being urged to complete high school and attend college in order to become more valuable in the job market. Scholarships are available to subsidize the education of the needy.

Hopefully, time will prove to the disadvantaged American that this nation is still, and will always strive to be, a
land of opportunity for all, where sustained effort brings financial rewards and a more comfortable, meaningful life. Someday, Labor Day may truly be a day of rejoicing for all American workers.
"LABOR DAY"

POSTQUESTION BOOKLET
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To summarize:

1. Read the article.

2. After you have finished reading the article, open the part of the booklet which contains some questions.

3. Read the directions on the first page of the question section.

4. Answer the questions in the booklet.

5. When you are finished, raise your hand and the instructor will give you the test.
LABOR DAY

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Hopefully, time will prove to the disadvantaged American that this nation is still, and will always strive to be, a
land of opportunity for all, where sustained effort brings financial rewards and a more comfortable, meaningful life. Someday, Labor Day may truly be a day of rejoicing for all American workers.

(NOTE: Pages 212-214 cannot be read by the subject until the seal on this page has been broken.)
Answer the questions on the next page. Mark your answers in the booklet. You may refer to the article to find the answers if you want to. Raise your hand when you are finished with the questions and the instructor will give your the test.
LABOR DAY

1. The first Labor Day celebration was in the year . . .
   a. 1892.
   b. 1859.
   c. 1895.
   d. 1852.

2. On Labor Day we think about all the progress made by . . .
   a. small business.
   b. the social security system.
   c. organized labor unions.
   d. federal legislation.

3. The union's way of stating its complaint to the public while its members are striking is by . . .
   a. subsidizing.
   b. persevering.
   c. picketing.
   d. fluctuating.

4. The power of the unions is controlled by . . .
   a. the Civil Rights Act of 1965.
   b. the Constitution.
   c. the Bill of Rights.
   d. the Taft-Hartley Act.

5. The amount of money earned by a family had risen in 1968 partly because . . .
   a. children had taken part-time jobs.
   b. many married women had begun working.
   c. the Taft-Hartley Act required it.
   d. the unions had put pressure on industry.
6. Medical care, housing and food cost the American . . .
   a. 70 percent of his family income.
   b. 65 percent of his family income.
   c. 60 percent of his family income.
   d. 55 percent of his family income.

7. The article says that unemployed people who get a pension from the federal government . . .
   a. receive a generous amount of money.
   b. are given enough money for basic needs.
   c. receive too much money.
   d. cannot exist on this money.

8. According to the article, the percentage of poverty-level families . . .
   a. cannot be accurately determined.
   b. has increased since 1914.
   c. has decreased since 1914.
   d. is the same as in 1914.

9. The article says that jobs are hard to find for . . .
   a. office workers.
   b. unskilled workers.
   c. workers who have very specialized skills.
   d. musicians or actors.

10. Federal and state governments are trying to solve the unemployment problem by . . .
    a. hindering automation.
    b. the Taft-Hartley Act.
    c. vocational training.
    d. giving more power to unions.
"LABOR DAY"

INTERSPERSED QUESTION SHEETS
You have just been given two envelopes. Envelope Number 1 has some papers in it; Envelope Number 2 is empty. You are to take the first sheet out of Envelope Number 1 and read it. If there are questions on that paper, mark the answers on that sheet. You may look for the answer in the passage. Choose the best answer for each question. Your instructor will not look at the answers to these questions. They are to help you learn material which you will be tested on later. When you have answered the questions, put the sheet into Envelope Number 2. Do not go back to it or refer to it again. When you have finished all the sheets in the first envelope, raise your hand and the instructor will come. He will remove the envelopes and give you your test paper. The test will find out how well you remember the answers to the questions. The test will also ask you for some other facts contained in the article.

To summarize:

1. Take the first sheet out of Envelope Number 1.
2. Read it and answer any questions on that sheet.
3. After you have read the material and have answered the questions on the sheet, put the sheet into Envelope Number 2.
4. Take out the next sheet from Envelope Number 1.
5. When you have read all the sheets, raise your hand and the instructor will give you the test.
6. Do not go back to any material in Envelope Number 2.
The story of Labor Day began in the nineteenth century with the dream of a carpenter named Peter J. McGuire. McGuire was born in 1852, long before the United States had laws prohibiting child labor. He was the tenth child in a poor family. To help support his brothers and sisters, he went to work in a furniture factory when he was only eleven years old. He grew up to become a carpenter and eventually the president of the national union of carpenters.

McGuire was well-acquainted with the satisfaction and the suffering that accompanies hard work. He wanted to establish a holiday "to honor the industrial spirit, the great vital force of this nation." At his suggestion, the first Labor Day celebration was held in New York in 1892.

Labor Day is celebrated on the first Monday in September. Many families go away to vacation areas for a final summer vacation over that three-day weekend just before school starts.

The achievements which Americans commemorate on Labor Day are primarily those of the labor unions. For more than 100 years, unions have been struggling to help their members. Pressure exerted by them has forced the passage of federal legislation to protect employees. Most workers are protected by a federal minimum hourly wage. A federal statute prohibits wage discrimination on the basis of sex; a woman is entitled to a salary equal to a man's when she performs a similar job. State laws, which vary from one state to another, limit the number of hours per week that a woman may work and prohibit her from doing certain types of heavy work. In most states children under fourteen are not allowed to hold jobs, though there are a few exceptions to this restriction so that youngsters may deliver newspapers or work as entertainers.
1. The first Labor Day celebration was in the year . . .
   a. 1892.
   b. 1859.
   c. 1895.
   d. 1852.

2. On Labor Day we think about all the progress made by . . .
   a. small business.
   b. the social security system.
   c. organized labor unions.
   d. federal legislation.

(NOTE: This page was stapled to the preceding page.)
American unions have fought continuously for higher wages, a shorter work week, extra pay for overtime work, paid vacations, sick leave, health insurance, pension plans and safe, sanitary working conditions. Now, unions are supporting the concept of the guaranteed annual income. Thanks to the perseverance of organized labor, the American worker is one of the best paid and best cared for in the world. About 19 million persons — more than one-fourth of the non-agricultural workers in the United States — belong to labor unions. There are unions for miners, musicians, teachers, janitors, nurses, plumbers and dozens of other occupational groups and industries.

In attempting to achieve its goals, a union may employ the most powerful weapon that it possesses; the strike. A strike occurs when union members decide that they will not return to work until their employer gives in to some or all of their demands. Workers on strike picket their employer by walking back and forth in front of his place of business, carrying signs stating their complaints. The custom of picketing has now been adopted by other protest groups to make known their disapproval of particular policies of government or industry.

There are now more than 200 national unions in the United States. As unions grew in size and number, federal legislation was needed to protect business and the national economy from the dominance of organized labor. In 1947, the Taft-Hartley Labor Act was passed to help maintain a balance of power between labor and management.
3. The union's way of stating its complaint to the public while its members are striking is by . . .
   a. subsidizing.
   b. persevering.
   c. picketing.
   d. fluctuating.

4. The power of the unions is controlled by . . .
   a. the Civil Rights Act of 1965.
   b. the Constitution.
   c. the Bill of Rights.
   d. the Taft-Hartley Act.

(NOTE: This page was stapled to the preceding page.)
Today, the American worker has good reason to celebrate Labor Day. Compared to his grandfather, the typical American worker is rich. In 1914, the median family income was about $2,500 (in dollars of 1964 purchasing power). By 1968, the median family income had risen to around $8,600. This big jump in family income was due, in part, to the influx of married women into the labor market. Women make up about 35 percent of the nation's 79 million workers. About 35 percent of the country's married women work, and about 10 percent have year-round, full-time jobs. While family income has soared, so has individual income. Before World War I, the average American factory worker earned the 1968 equivalent of $26 a week; today, he earns approximately $120 per week while working about 2 hours less.

Compared to workers in other nations, the typical American worker is also rich. The average American must work 12 minutes to earn enough money to buy a dozen eggs. To make the same purchase, the average Englishman works about 60 minutes, the Frenchman 108 minutes. In Moscow, the average man works 13 hours to buy a cotton shirt; the New Yorker works 1.7 hours. American purchasing power is about five or six times as high as the world's average, about twice that of Western Europe, and about ten times that of Asia.

The population of the United States, about 200 million, is only 6 percent of the world total. Yet these 6 percent make, buy, sell, and use more than one-third of the world's output of goods and services. Americans produce and consume more than any other nation. The American family spends about 60 percent of its income on food, housing, and medical care. The rest is available for clothing, automobiles, hobbies, education, vacations, insurance, and savings. Nearly 80 percent of American families own automobiles; 99 percent have electricity in their homes.
5. The amount of money earned by a family had risen in 1968 partly because . . .  
   a. children had taken part-time jobs.  
   b. many married women had begun working.  
   c. the Taft-Hartley Act required it.  
   d. the unions had put pressure on industry.

6. Medical care, housing and food cost the American . . .  
   a. 70 percent of his family income.  
   b. 65 percent of his family income.  
   c. 60 percent of his family income.  
   d. 55 percent of his family income.

(NOTE: This page was stapled to the preceding page.)
The average work week is shorter for Americans than for Europeans. The 40 hour week (8 hours per day, five days a week) is standard, though in various industries regular full-time employment ranges from 35 to 42 hours per week. Most employees are paid at a higher hourly rate when they work overtime.

About 95 percent of American industrial workers enjoy paid vacations. Nearly 25 percent of them get three weeks off with pay. Accompanying an increase in paid vacations has been an enormous increase in leisure-time activities and expenditures.

Employees and employers pay a social security tax to the federal government. This tax provides pensions for retired workers. Male workers who retire can receive monthly social security checks at age 65; women become eligible at age 62. Social security benefits have been increased periodically as the nation's standard of living has climbed. Although benefits are not over-generous, they do provide the elderly with funds for essential needs.

For most Americans, Labor Day is an occasion to pause and count their blessings. Unfortunately, the total picture of the American economy contains some dark spots. The United States is the most prosperous nation in the world but in the midst of prosperity for the majority, about 30 million Americans are living below what the federal government considers the poverty level. (Urban families of four with incomes under $3,335 and individuals with incomes below $1,500 are considered poor.) The percentage of poverty level American families has declined from about 60 percent in 1914 to about 15 percent today. Nonetheless, there is deep national concern about the deprivation of the poor.
7. The article says that unemployed people who get a pension from the federal government . . .
   a. receive a generous amount of money.
   b. are given enough money for basic needs.
   c. receive too much money.
   d. cannot exist on this money.

8. According to the article, the percentage of poverty-level families . . .
   a. cannot be accurately determined.
   b. has increased since 1914.
   c. has decreased since 1914.
   d. is the same as in 1914.
Who are the poor in America, and why are they poor? Most poor Americans fall into one or more of the following categories: the elderly retired, the disabled, unskilled workers and their families, the uneducated, and the unemployed. Although federal funds are provided for the elderly and disabled, these benefits are small. The unemployed person living on a federal pension must budget himself very strictly. Although blacks comprise only about 11 percent of the national population, they constitute 20 percent of the poor. In 1966, 32 percent of non-white families had incomes under $3,000; only 13 percent of white families had incomes that low. In 1968, more than 40 percent of America's non-whites were living below the poverty level.

In the United States, jobs are plentiful for most skilled industrial workers and for educated clerical workers and professional people. But in some parts of the country, the unskilled worker has difficulty holding a full-time, year-round position. The unemployment rate fluctuates between 3 and 4 percent. This figure indicates the percentage of people between the ages of 16 and 65 who seek employment and cannot find it. Automation has stolen jobs from thousands of workers as factories continue to replace more and more men with machines. Workers who are unskilled or who possess obsolete skills must be trained for new types of work.

In recent years, national attention has been focused on the impoverished American. Federal, state, and local programs have been created to offer vocational training to the unemployable. Also, young people are being urged to complete high school and attend college in order to become more valuable in the job market. Scholarships are available to subsidize the education of the needy.

Hopefully, time will prove to the disadvantaged American that this nation is still, and will always strive to be, a
land of opportunity for all, where sustained effort brings financial rewards and a more comfortable, meaningful life. Someday, Labor Day may truly be a day of rejoicing for all American workers.

9. The article says that jobs are hard to find for . . .
   a. office workers.
   b. unskilled workers.
   c. workers who have very specialized skills.
   d. musicians or actors.

10. Federal and state governments are trying to solve the unemployment problem by . . .
    a. hindering automation.
    b. the Taft-Hartley Act.
    c. vocational training.
    d. giving more power to unions.
"LABOR DAY"

RETENTION TEST
LABOR DAY

Directions - Read each question and choose the best answer according to what you have read in the article. Mark your answers on the computer sheet which your instructor has given you.

1. Peter McGuire worked as . . .
   a. a carpenter.
   b. a business man.
   c. an unskilled worker.
   d. a teacher.

2. Americans celebrated Labor Day for the first time in the year . . .
   a. 1859.
   b. 1852.
   c. 1895.
   d. 1892.

3. Labor Day celebrates the achievements of . . .
   a. federal legislation.
   b. organized labor unions.
   c. small business.
   d. the social security system.

4. Normally, jobs cannot be held by children under the age of . . .
   a. 13.
   b. 14.
   c. 15.
   d. 16.

5. American unions support the concept of . . .
   a. the guaranteed annual income.
   b. child labor.
   c. a longer work week.
   d. increased inflation.
6. At the time the article was written, membership in labor unions was about . . .
   a. 29 million.
   b. 19 million.
   c. 39 million.
   d. 9 million.

7. Workers who are on strike often show everyone that they disagree with their employers by . . .
   a. fluctuating.
   b. picketing.
   c. persevering.
   d. subsidizing.

8. The balance of power between labor and management is maintained by . . .
   a. the Constitution.
   b. the Bill of Rights.
   c. the Civil Rights Act of 1965.
   d. the Taft-Hartley Act.

9. In 1968, the average family income was about . . .
   a. $2,500 per year.
   b. $8,000 per year.
   c. $5,000 per year.
   d. $10,000 per year.

10. In 1968 the average family income had risen partly because . . .
    a. the Taft-Hartley Act required it.
    b. the unions had demanded large wage increases.
    c. many married women had taken jobs.
    d. many children were working part-time.
11. At the time that this article was written, the population of the United States was about . . .
   a. 200 million.
   b. 210 million.
   c. 220 million.
   d. 230 million.

12. The part of the American income which is spent on housing, food, and medical care is about . . .
   a. 55%.
   b. 60%.
   c. 65%.
   d. 70%.

13. An individual is considered poor by the federal government if he earns less than . . .
   a. $1000 per year.
   b. $1500 per year.
   c. $2500 per year.
   d. $3335 per year.

14. Women can retire and get an old age pension at age . . .
   a. 60.
   b. 62.
   c. 64.
   d. 65.

15. According to the article, unemployed people living on a federal pension . . .
   a. are not given enough money to live on.
   b. are generously taken care of.
   c. are given too much money.
   d. receive enough money for basic needs.
16. The percentage of families at the poverty level, according to the author, . . .
   a. cannot be determined accurately.
   b. is the same as in 1914.
   c. has increased since 1914.
   d. has decreased since 1914.

17. According to the article, the person who might have the most trouble finding a job would be . . .
   a. an office worker.
   b. a musician or actor.
   c. workers with very specialized skills.
   d. an unskilled worker.

18. According to the article many jobs have been lost because . . .
   a. labor unions have made too many demands.
   b. of vocational programs.
   c. foreign workers work more cheaply.
   d. machines have taken the place of some workers.

19. Federal and state governments are trying to find a solution to the unemployment problem by . . .
   a. using the Taft-Hartley Act.
   b. discouraging automation.
   c. starting vocational programs.
   d. giving more power to the unions.

20. The author of the article describes Labor Day as . . .
   a. a special day of hope for the poor and a day of rejoicing for the rich.
   b. a day for comfortable and meaningful living.
   c. a day of rejoicing for all American people, rich and poor.
   d. a day which will someday hopefully be a day of rejoicing for all American workers.
APPENDIX E. RAW DATA

1. Description of Computer Cards

2. Raw Data
DESCRIPTION OF COMPUTER CARDS

CC# 1-7  Student Identification Number

CC# 1-2  Blank

CC# 3  Student's English Course

0 = Remedial English 071
1 = English 071
2 = English 072
3 = English 073

CC# 4-5  English Class Identification Number

CC# 6-7  Student Identification Number

CC# 8-9  Blank

CC# 10-11  Treatment Group

CC#10  Question Placement Group
1 = Prequestions
2 = Postquestions
3 = Interspersed Questions

CC#11  Selection Group
1 = "Patriotic Holidays"
2 = "Religion in American Life"
3 = "Labor Day"

CC# 12-14  Blank

CC# 15-34  Answers to Test Questions

for "Patriotic Holidays"
CC# 15,16,19,21,22,25,26,28,31,32 = Relevant Test
CC# 17,18,20,23,24,27,29,30,33,34 = Non-relevant Test

for "Religion in American Life"
CC# 15,16,17,21,23,26,28,30,31,34 = Relevant Test
CC# 18,19,20,22,24,25,27,29,32,33 = Non-relevant Test

for "Labor Day"
CC# 16,17,21,22,24,26,29,30,31,33 = Relevant Test
CC# 15,18,19,20,23,25,27,28,32,24 = Non-relevant Test
### EXPERIMENT I - "PATRIOTIC HOLIDAYS"

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EXPERIMENT II - "RELIGION IN AMERICAN LIFE"

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APPENDIX F. COMPUTER PROGRAM
IDENTIFICATION DIVISION.
PROGRAM-ID. TEST SEPARATOR AND GRADER.
AUTHOR. STEVE SCHUERMAN.
DATE-WRITTEN. 78/08/08
ENVIRONMENT DIVISION.
INPUT-OUTPUT SECTION.
FILE-CONTROL.
   SELECT CR ASSIGN TO UT-S-CARS.
   SELECT CP ASSIGN TO UT-S-SYSPUNCH.
DATA DIVISION.
FILE SECTION.
FD CP
   RECORD CONTAINS 80 CHARACTERS
   LABEL RECORDS ARE OMITTED.
01 CP-RECORD.
   05 SORT-KEY.
      10 STUDENT-NO PIC X(7).
      10 PLACEMENT-NO PIC 9.
      10 SELECTION-NO PIC 9.
      05 R-SCORE PIC 99.
      05 N-SCORE PIC 99.
      05 FILLER PIC X(67).
FD CR
   RECORD CONTAINS 80 CHARACTERS
   LABEL RECORDS ARE OMITTED.
01 KEY-FMT.
   05 CR-KEY PIC A(60).
   05 FILLER PIC X(19).
   05 CR-CODE PIC X.
01 CR-RECORD.
   05 SORT-KEY.
      10 STUDENT-NO PIC X(7).
      10 FILLER-2 PIC 99.
      10 PLACEMENT-NO PIC 9.
      10 SELECTION-NO PIC 9.
      05 FILLER-1 PIC X(3).
      05 ANSWERS.
         10 ANSWER OCCURS 20 TIMES PIC X.
      05 FILLER PIC X(46).
WORKING-STORAGE SECTION.
01 W-S.
   05 INDEXES.
      10 A PIC S9(5) COMP-3.
      10 B PIC S9(5) COMP-3.
      10 C PIC S9(5) COMP-3.
      10 D PIC S9(5) COMP-3.
      10 E PIC S9(5) COMP-3.
      10 F PIC S9(5) COMP-3.
   05 SCORES.
      10 R-SCORE PIC 99.
      10 N-SCORE PIC 99.
   05 FLAGS.
PROCEDURE DIVISION.

MASTER-Routine Section.
BEGIN.
PERFORM OPEN-Routine.
PERFORM 01-Routine Until CR-EOF.
PERFORM 02-Routine.
PERFORM 03-Routine Until SORT-EOF.
PERFORM CLOSE-Routine.
STOP RUN.

OPEN-Routine Section.
BEGIN.
OPEN INPUT CR.
OPEN OUTPUT CP.
MOVE SPACES TO SORT-RECORDS, Flags.
MOVE ZERO TO SORT-Ptr.
READ CR Record at END STOP RUN.
IF CR-Code IN Key-FMT NOT = 'M'
   STOP RUN.
MOVE CR-Key IN Key-FMT TO REL-MAPS.
READ CR Record at END STOP RUN.
IF CR-Code IN Key-FMT NOT = 'K'
   STOP RUN.
MOVE CR-Key IN Key-FMT TO ANSWER-Keys.
READ CR at END STOP RUN.

CLOSE-Routine Section.
BEGIN.
CLOSE CR CP.
01-Routine Section.
BEGIN.
MOVE CURR CR-Record TO Sort-Record-Area.
MOVE ZERO TO R-SCORE IN Sort-Record-Area, N-SCORE
IN SORT-RECORD-AREA.
PERFORM 01-ANSWER-CHECK VARYING A FROM 1 BY 1 UNTIL A > 20.
PERFORM 01-RELEASE.
READ CR RECORD AT END
   MOVE 'E' TO CR-EOF-FLAG.
01-ANSWER-CHECK SECTION.
BEGIN.
   IF ANSWER IN CR-RECORD (A) NOT = ANSWER IN
       ANSWER-KEY (SELECTION-NO IN CR-RECORD, A)
       GO TO EXIT-TAG IN 01-ANSWER-CHECK.
   IF REL-FLAG (SELECTION-NO IN CR-RECORD, A) = 'R'
       ADD 1 TO R-SCORE IN SORT-RECORD-AREA
   ELSE
       ADD 1 TO N-SCORE IN SORT-RECORD-AREA.
EXIT-TAG.
   EXIT.
01-RELEASE SECTION.
BEGIN.
   ADD 1 TO SORT-PTR.
   MOVE SORT-RECORD-AREA TO SORT-RECORD (SORT-PTR).
02-ROUTINE SECTION.
BEGIN.
   PERFORM 02-PASS VARYING A FROM SORT-PTR BY -1 UNTIL SORTED OR A NOT > 1.
   MOVE ZERO TO SORT-PTR.
   PERFORM 03-RETURN.
02-PASS SECTION.
BEGIN.
   MOVE 'S' TO SORT-EOF-FLAG.
   PERFORM 02-BUBBLE VARYING B FROM 1 BY 1 UNTIL B NOT < A.
02-BUBBLE SECTION.
BEGIN.
   ADD B, 1 GIVING C.
   IF SORT-KEY IN SORT-RECORD (B) > SORT-KEY
       IN SORT-RECORD (C)
       MOVE SPACE TO SORT-EOF-FLAG
       MOVE SORT-RECORD (B) TO SORT-RECORD-AREA
       MOVE SORT-RECORD (C) TO SORT-RECORD (B)
       MOVE SORT-RECORD-AREA TO SORT-RECORD (C).
03-ROUTINE SECTION.
BEGIN.
   MOVE SPACES TO CP-RECORD.
BEGIN.
   MOVE CORR SORT-RECORD-AREA TO CP-RECORD.
   WRITE CP-RECORD.
   PERFORM 03-RETURN.
03-RETURN SECTION.
BEGIN.
   ADD 1 TO SORT-PTR.
   MOVE SORT-RECORD (SORT-PTR) TO SORT-RECORD-AREA.
   IF SORT-RECORD-AREA = SPACES
       MOVE 'E' TO SORT-EOF-FLAG.
/
//GO•SYSPUNCH DD SYSOUT=B