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ABSTRACT

The Laboratory staff reported the unit development and field test activities in their effort to collect, analyze, synthesize, and disseminate new curriculum developments in secondary level social studies to school curriculum decision makers. The audience consisted primarily of social studies teachers and department chairmen. To further refine and evaluate their model information processing system, the staff defined the following unit objectives using the Bloom and Krathwohl taxonomies: 1) Cognitive Performance Objectives: to develop knowledge of programs, comprehension of relationships and implications, application, and evaluation of program information; and, 2) Affective Performance Objectives: to promote use of, and involvement with the unit. 3) The specific unit requirements were: parallel treatment of programs, accuracy, consistency, objectivity, flexibility, timeliness, relevance, uniqueness, and cost effectiveness. After an initial survey of 100 new programs, nine research based American government programs were selected for review in the multi-level unit including: introductory materials, project comparisons, program selection device, and detailed program reports. Three major field tests were conducted between February 1969 and spring 1970. The first was largely non-quantitative; the main and operational field tests were empirical studies with the populations, methodologies, and results enumerated here. It was concluded that the objectives were met. (SBE)

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FINAL REPORT ON

THE AMERICAN GOVERNMENT INFORMATION UNIT

(A PILOT PROGRAM TO IMPROVE INFORMATION FLOW BETWEEN RESEARCH AND DEVELOPMENT AND PRACTICE IN EDUCATION)

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Published by

FAR WEST LABORATORY
FOR
EDUCATIONAL RESEARCH AND DEVELOPMENT
Berkeley, California

C. L. Hutchins
Project Director

Paul D. Hood
Communication Program Director

January 1971

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The Laboratory was established through a Joint Powers Agreement in February 1966. Signatories as of June, 1969 include:

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FOREWORD

This is a final report on an educational development project. The outcome of the project is a tangible product that informs school people about nine new developments in the field of secondary social studies. The product is a multi-level, self-contained unit of information suitable for use in any secondary school. The form of this report follows the pattern of the Information Unit (the product) itself. The first page is devoted to a quick chart-like "fact sheet," and the second section is a summary. The body of this report is presented and organized in a way comparable to the reports contained in the Information Unit itself. In other words, we have tried to practice what we preach: people need varying levels of information about an educational development; not all people need all the same information.

The *American Government Information Unit* is part of a larger development effort by the Communication Program of the Far West Laboratory for Educational Research and Development. Similar reviews of new developments in other subject areas are available, underway, or planned. A case study on an Elementary Science Information Unit is now available, and reports on units in individualized instruction and early childhood education are being developed. An additional report summarizing the total design of the information system, its technology, and the research behind it is also planned in 1970.

We hope that this report and its companions will provide a stimulus and model for more comprehensive reporting on the research and development of major educational products now underway across the country. The educational community and taxpayers in general have a right to know how public funds are being expended and how successful the results of those expenditures are.

This project could not have been completed without the cooperation of a large number of people, including almost two hundred social studies teachers, principals, and others who participated in the field test evaluation of this Information Unit. A particular debt of gratitude must be expressed to Kenneth Moore and the Joint County School System, Cedar Rapids, Iowa, who assisted the Far West Laboratory staff in field testing the Unit in twenty-three eastern Iowa schools.

C. L. Hutchins
Berkeley, California
January 1971

FACT SHEET

Name: The American Government Information Unit

Name of the Project and Development Agency: The Communication Program of the Far West Laboratory for Educational Research and Development

Project Director: C. L. Hutchins, Ph.D.

Senior Editors: Nancy Adelson and Sandra G. Crosby

Content Area: A review of nine new secondary programs in American government

Purpose: The Information Unit enables school personnel to decide whether to adopt (or reject) these new, relatively well-developed curricula

Target Users: Secondary school curriculum decision-making groups. Secondary audiences: pre- and inservice groups interested in updating their knowledge of new developments in secondary social studies curricula

Format: A multi-level printed product containing introductory materials on each of nine programs. The product contains a decision-oriented introduction and detailed reports on each program

Length of Use: At least three hours

Readability Level (of the Information Unit itself): College graduate

Availability: February 1971

Cost: Estimated at $7.95

Distributor: Lockheed Educational System

SUMMARY

FINAL REPORT ON THE INFORMATION UNIT ON
SECONDARY SOCIAL STUDIES PROGRAMS

The number of new processes and products available to schools is increasing at a rapid rate. Many of these developments are relatively complex and difficult to understand in contrast to traditional materials. On the surface they are no more appealing than the great quantity of resources already available. Do teachers and administrators have enough time to find, gather, and process information about the new developments? Do researchers and developers adequately disseminate information that is readable and understandable?

The staff of the Far West Laboratory believe that the answer to these questions is "no." As a result, they have developed the *American Government Information Unit.* The unit describes nine new, relatively well-developed and researched programs intended for use in secondary school government courses. Use of the Information Unit shortens the work load of the school personnel who are responsible for reviewing these developments for possible adoption. The information is presented at several levels of detail (multi-level) and in a decision-focused format.

The unit contains the following features:

1. Introductory materials, including a discussion of the new social studies; an introduction to the unit; summary descriptions of the nine programs; a chart comparing the programs; and an aid for deciding which programs are most appropriate.

2. Detailed Program Reports (one report for each program). The sections of the reports are:

    1. Goals and Objectives
    2. Content and Materials
    3. Classroom Strategies
    4. Student and Teacher Prerequisites
    5. Implementation: Requirements and Costs
    6. Program Development and Evaluation
    7. Project History

These materials are all packaged in a small, mailable box.

The programs reviewed are:

1. High School Curriculum Center in Government Project
2. Justice in Urban America Series, Law in American Society Foundation
3. Selected Episodes, Sociological Resources for the Social Studies
4. Secondary Social Studies Program, Lincoln Filene Center
5. Utah State University Social Studies Project (A Curriculum Focused on Thinking Reflectively About Public Issues)
6. AEP Public Issues Series (Harvard Social Studies Project)
7. Holt Social Studies Curriculum
8. The Amherst Project
9. Educational Research Council of America Social Studies Program

The results of the evaluation of the Information Unit showed that:

1. Over 70% of the subjects could achieve scores of 50% or higher on tests of knowledge and comprehension of programs.

2. Over 50% of the subjects could make decisions regarding at least six of the nine programs.

3. Subjects applied the information to their own needs.

4. Subjects experienced a statistically significant increase in their own estimation of their knowledge about the programs.

5. Average ratings by subjects placed the Information Unit at 5.0 or higher (toward the positive end) of seven-point scales of "useful" and "easy to use."

6. Given a list of possible resources of curriculum information, subjects indicated that they preferred the Information Unit to all other secondary sources of comparable information (hiring consultants, professional meetings or conventions, and journals) and almost equivalent to all primary sources (workshops using the new curriculum materials, site visits to innovative projects, and conversations with professionals whose judgments they valued).

The unit was developed by the staff of the Communication Program of the Far West Laboratory for Educational Research and Development, Dr. Paul D. Hood, Director. Dr. C. L. Hutchins was the project director.

1.0 GOALS AND OBJECTIVES

1.1 Long-range goals.

The *American Government Information Unit* describes nine new secondary social studies programs. These programs are research-based; they represent the best-developed instructional programs available today. The Information Unit is intended to aid in bridging the gap between these new developments and the nation's schools. The goal is to provide information that will lead those people using the unit to decide to adopt, adapt, or reject the programs. The goal is not to induce adoption where the use of these programs would conflict with existing school requirements or resources.

1.2 Program objectives.

The first objective of the Information Unit is to produce knowledge and understanding about the new programs--especially facts about each program, the relationship of these facts to general trends, and lists of criteria that school personnel have indicated are required to judge the new programs. Second, and most important, the Information Unit leads users to evaluate the new programs; they should apply information to their own situation and decide whether to adopt, adapt, or reject each program. The Information Unit does not contain evaluations of the programs; instead it enables the users to evaluate the programs using their own criteria.

The Information Unit also has affective objectives: users will receive it, become involved with it, and value it.

Other objectives of the Information Unit include the requirements of parallel treatment of programs, accuracy of facts, consistency among components, objective treatment of facts, timeliness, flexibility, relevance, uniqueness, and cost-effectiveness.

Unstated, but implied, is another objective: to lead users to value the products of research and development and the technology behind them.

1.3 Detailed objectives.

Following the Bloom-Krathwohl taxonomies, and making a distinction between performance (terminal) objectives and enabling objectives, the Laboratory staff has defined the following objectives:

Performance Objectives (cognitive). (a) Knowledge: After using the Information Unit (IU), the user will know major characteristics which differentiate the programs; (b) Comprehension: After using the IU, the user should identify relationships among programs which enable him to derive useful implications about programs; (c) Application: After using the IU, the user will apply information about programs to his own situation; and (d) Evaluation: After using the IU, the user will judge whether he would adopt, adapt, or reject programs in the IU.

The Laboratory staff did not define analysis or synthesis objectives in the cognitive domain. They assumed that it would be difficult if not improper to provide an explicit system for evaluation; each user's needs and resources were judged to be so unique that no common set of procedures for evaluating the programs seemed appropriate. Instead, the Information Unit sought to provide those facts, etc., necessary for the user's own analysis/synthesis scheme--either explicit or implicit.

Performance Objectives (affective). (a) Attention: If the IU is available to the user, he will attend to it; (b) Response: The user will respond to (become involved with) the IU; (c) Value: After using the IU, the user will value it above other secondary sources of information about programs and about as highly as he values most primary sources.

Enabling Objectives. (a) Parallel Treatment of Programs: It is almost axiomatic that programs be treated in a parallel manner; (b) Accuracy of Information: The information provided will be accurate; (c) Consistency of Information: All information about each program will lead the users to congruent conclusions about the program; (d) Objective Treatment: All information in the IU must be supported by the ability of a number of judges to agree that the information is true; (e) Timeliness of Information: The time span between development of the unit and use of the unit will not significantly diminish the value of the information; (f) Flexibility: The unit should be usable by various types of individuals in a number of different kinds of settings; (g) Relevance: Those areas of highest priority or relevance should be treated first; (h) Uniqueness: The unit will not represent a duplication of effort; (i) Cost-effectiveness: The user should perceive that the reward for using the unit justifies the cost and time involved.

1.4 How are the detailed objectives derived from the goals?

Each of the cognitive and affective performance objectives, and the objective of cost-effectiveness of the development, were translated into behavioral objectives; conditions were specified and standards

set. All the enabling objectives, with the exception of cost-effectiveness, passed or failed on the basis of expert judgment, the opinions of program developers, or logical analysis. An abridged statement of the behavioral objectives follows:

1. COST-EFFECTIVENESS: After using the IU, subjects will rate their use of the IU on three scales of reward (personal benefit, helpfulness, learning) and three scales of cost (time, money, effort). Subjects will score the IU 1.0 or greater, based on a reward/cost ratio.[1]

2. COGNITIVE OBJECTIVES:

   a. (Knowledge). After using the IU, subjects will, without guessing, correctly identify as true or false significantly more than 50% of a set of statements describing major characteristics of programs.

   b. (Comprehension). After using the IU, subjects will, without guessing, score significantly higher than 50% correct when indicating agreement or disagreement with statements about programs which represent implications based on facts about programs they reviewed.

   c. (Application and Evaluation). After using the IU, subjects will identify those programs which are acceptable in light of their five most important needs, resources, or constraints. Subjects will make positive decisions (pilot test, adopt, etc.) for programs which meet more than half of their five most important needs and negative decisions (reject) for programs which do not.

   d. (Evaluation). After using the IU, subjects will indicate what course of action they would take regarding the IU programs. Fifty percent of the subjects will decide to "send for sample materials," "pilot test," "adopt," or reject at least six of the nine programs.

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[1]The standards specified are minimal rather than optimal standards.

3. AFFECTIVE OBJECTIVES (Attention, Response and Value):[2]

   a. After using the IU, subjects will indicate their agreement with statements regarding the different pieces of the IU. Their ability to respond will be interpreted as ability to differentiate the pieces. Eighty percent or more subjects will indicate agreement or disagreement with each statement.

   b. After using the IU, subjects will indicate whether they would be willing to recommend to their schools the use of IU's in other secondary areas. Eighty percent of subjects will indicate that they would be willing to recommend IU's in other secondary areas.

   c. After using the IU, and given a list of possible primary and secondary sources of information about programs, subjects will indicate on scales of "useful" and "easy to use" that the Information Unit is superior to all secondary sources.[3]

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[2]The basic measures of attention and response are supplemented by a number of "unobtrusive" measures. No one measure seems adequate to observe attention or response; thus, the staff has looked for multiple evidences to determine whether subjects were attending and responding to the IU. If the existence of attention and response can be confirmed by a number of measures, we increase our certainty that they have, in fact, occurred.

[3]A complete description of these objectives along with sample items can be obtained from the field test reports available at the Far West Laboratory for Educational Research and Development.

2.0 CONTENT AND MATERIALS

2.1 What programs were selected for review and inclusion in this Information Unit? What general subject or discipline do the selected programs cover?

Nine secondary social studies programs in the area of American government were included for review:

The Amherst Project
Project Director: Richard Brown, Committee on the Study of History, Hampshire College
Publisher: Addison-Wesley Publishing Company

Educational Research Council Social Science Program (ERCSSP)
Project Director: Raymond English, Educational Research Council of America
Publisher: Allyn and Bacon, Inc.

Harvard Social Studies Project/AEP Public Issues Series
Project Director: Donald Oliver, Harvard University
Publisher: American Education Publications

High School Curriculum Center in Government Project (HSCCGP)
Project Director: Howard Mehlinger, Indiana University
Publisher: Ginn and Company

Holt Social Studies Curriculum (HSSC)
Project Director: Edwin Fenton, Carnegie-Mellon University
Publisher: Holt, Rinehart and Winston, Inc.

Justice in Urban America Series
Project Director: Robert Ratcliffe, Law in American Society Foundation
Publisher: Houghton Mifflin Co.

Lincoln Filene Center (LFC) Secondary Social Studies Program
Project Director: John Gibson, Lincoln Filene Center for Citizenship and Public Affairs
Publisher: Lincoln Filene Center

Sociological Resources for the Social Studies (SRSS) (Selected Episodes)
Project Director: Robert Angell, SRSS
Publisher: Allyn and Bacon, Inc.

Utah State University (USU) Social Studies Project (A Curriculum Focused on Thinking Reflectively About Public Issues)
Project Director: James Shaver, Utah State University
Publisher: Houghton Mifflin Co.

These programs were selected because their subject areas are particularly relevant to the study of American government. Their subject coverage ranges from law, legal issues, American political behavior, political systems, government institutions, and public issues to American history and sociological problems and issues.

2.2 What grade levels and difficulty levels are covered?

All of the programs are designed for use at the secondary school level (grades 9-12). Each developer recommends the grade(s) in which use of the program seems appropriate. In addition, the Far West Laboratory (FWL) has computed a readability grade level for each program, based on analysis of sample passages from student materials.[4] These grades and readability levels are as follows:

TABLE 1

Program	Grade Level (As recommended by the developer)	Readability Level[5] (As computed by the Laboratory staff)
Amherst	Any secondary grade	12th grade
ERCSSP	Grade 9	10th grade
Harvard	Any secondary grade	8th grade
HSCCGP	Any secondary grade	11th grade
HSSC	Grade 9	11th grade
Justice Series	Grade 9	9th grade

[4]The method for determining readability involved use of the Dale-Chall formula. This formula takes into account average sentence length and percentage of unfamiliar words (i.e., words not appearing on the Dale list of 3,000 easy words) in the sample passages. The formula produces a raw score which is then corrected to the corresponding grade level.

[5]Allow for a standard deviation of one year from the grade level specified.

Program	Grade Level	Readability Level
LFC	Any secondary grade	8th grade
SRSS	Any secondary grade	9th grade
USU	Grades 11, 12	10th grade

All of the programs have also been classified by FWL as appropriate for certain student ability levels. The classification of each program is based on (a) the range in readability levels of the student materials; (b) curriculum expert and/or staff assessment of the program's grade and student ability levels; and (c) the program developer's recommendation of grade and ability levels. Two programs, the Justice in Urban America Series and the LFC Secondary Social Studies Program, are classified as appropriate for "below average to average" ability students. Programs appropriate for students of "average to above average" ability include SRSS, HSCCGP, ERCSSP, Harvard, and the USU Project. Amherst and HSSC are classified as suitable for "above average" ability students.

The target audience of the Information Unit is personnel responsible for selecting and implementing social studies programs in secondary schools. Although curriculum coordinators and principals are included in this group, the audience consists primarily of social studies teachers and department chairmen. Research conducted as part of the development of the Information Unit produced no evidence that this audience could be further subdivided or differentiated. There is no basis in the data to confirm that any single group of district- or school-level personnel could be identified as the "decision-makers." FWL did learn from field testing and consultation with school personnel that at the secondary school level teachers and/or department chairman frequently have the authority to select some materials and make some curriculum decisions without seeking the approval of higher-level school or district personnel.

2.3 How complete is the subject coverage of the Information Unit and the selected programs?

The Information Unit was not intended to cover all social studies programs available. An initial survey of the latest developments in the field revealed nearly 100 new programs, which focused on a variety of subjects, including history, economics, geography, government, anthropology, and interdisciplinary studies, among others. Staff size, financial resources, and other constraints required that the review be limited initially to one area. A logical starting place seemed to be American government, which is

an area covered in every high school curriculum. The nine programs selected as relevant to the study of American government were judged to be the best examples of research and development in that area. Standard textbook programs, audiovisual and other resource materials, and supplementary simulation materials were excluded during the review. (See 2.6 for the procedures used to select the programs.)

The subject area of each program in the Information Unit is relevant to the study of American government. The programs' coverage of the area varies, however. Some of the programs are designed as complete, sequential, secondary curricula, with individual units or courses focusing on government, political science, or related areas (HSSC, ERCSSP). Units in the LFC instructional programs can be used either as a sequential curriculum or as supplements to an existing curriculum. Three of the programs are self-contained courses: two (Justice Series and HSCCGP) are a full year in length and designed primarily for grade 9; one (USU) is a semester in length and is designed primarily for grades 11 and 12. Units from the Justice Series can also be used as supplementary material. The three remaining programs (SRSS, Amherst, and Harvard) provide supplementary units which focus on particular topics, problems, social phenomena, or issues. They are designed to replace or expand existing curricula, courses, or textbooks in the 9-12 grade range.

2.4 What concepts and processes are to be learned in the programs reviewed?

The new social studies programs emphasize learning about issues and ideas and how to deal with them, rather than acquiring factual information. The developers of these programs contend that, traditionally, students have been asked to memorize names, facts, and dates and to study the conclusions of social science investigations. Their programs, on the other hand, encourage students to study and use the processes of social science investigation in order to gain understanding of the nature of the social sciences. Students of the new social studies, therefore, are generally involved in inquiry--they are encouraged to ask questions, discover for themselves, and apply skills and processes used by social scientists. Major processes stressed in the programs include questioning, analyzing, formulating hypotheses, drawing conclusions, and valuing.

The new programs also provide students with a framework of concepts, theories, and generalizations which give relevance to and help to organize the factual information they learn.

Content in the new programs may be organized around concepts, such as power, leadership, or liberty; topics or themes, such as the presidential election of 1964 or the voter in American society; or problems and issues, such as the right to counsel or freedom of assembly.

2.5 What concepts and processes are to be learned from the Information Unit itself?

Learning of specific concepts and processes was not a terminal objective of the Information Unit. Although field test participants were expected to know and comprehend certain major characteristics of the programs they reviewed (such as content perspective, grade level, teaching strategy, evaluation and training requirements, and program history), their ability to do so was a measure of their achievement of the intermediate, rather than terminal, objectives of the Information Unit.

2.6 What rationale and procedures were used to select or identify the programs included in the Information Unit?

To be included in the Information Unit, a project had to meet all of the seven selection criteria described below. First, the purpose of the project had to be to produce curriculum materials for students. Such materials could include sets of readings, study units, texts, and/or casebooks which were organized as supplementary units or complete curricula or courses. Second, the materials had to focus on subject areas which could be used directly in American government, problems of democracy, civics, political science, politics, or public issues courses. The subject area could include combinations of topics such as national, state, and/or local government; public opinion, pressure groups, and politics; citizenship and political action; historical background and basic concepts; foreign policy; economic problems; and/or social problems. Third, the materials had to be recommended for use at the secondary school level in grades 9, 10, 11, and/or 12. Fourth, the material had to have undergone an adequate formal development and testing procedure, comparable to the cycle followed by FWL, and also produced field test evidence that the materials could be successfully employed by teachers and students in actual classroom situations. This procedure had to include classroom trial and then revision of materials, based on data gathered from the trial, before the materials were released for general use. Fifth, the materials had to be ready for general distribution by the beginning of the 1970-71 school year. Sixth, the minimum time required to use the materials had to be approximately two school weeks or 10 to 20 classroom hours. Seventh, the materials had to

be accompanied by instructions about the teaching strategy implicit in or appropriate to the materials.

Staff review of professional literature, reports, and journals, staff interviews with San Francisco Bay Area social studies educators, and consultation with nationally recognized experts in the field identified initially about 35 social studies projects as potentially appropriate for inclusion in the Information Unit. After application of the criteria described above, nine projects from that list subsequently qualified for inclusion. Each of them met all of the seven selection criteria.

Although other programs might be considered appropriate for inclusion in the published edition of the Information Unit, the number will be restricted to those presently included. This restriction seemed justifiable for two reasons: (1) addition of more programs and, consequently, preparation of descriptive materials on them, would delay the release of the Information Unit beyond the 1970-71 school year, and (2) the second-generation information system now under development is designed to incorporate such programs--it has a built-in capability to add new programs as they become available and will, eventually, subsume the present Information Unit.

2.7 What is the general form and organization of the Information Unit?

The *American Government Information Unit* follows a model initially conceptualized for the first information system developed by the Far West Laboratory. Briefly, that format includes three levels of information: (a) the "Survey Level," a broad survey of trends in secondary social studies; (b) the "Intermediate Level," charts and summaries that describe the most noteworthy features of each program and its classroom activities; (c) the "Detailed Level," reports on each program organized under the headings Goals and Objectives, Content and Materials, Classroom Strategy, Student and Teacher Prerequisites, Implementation Requirements and Costs, and Project History. The organization and general content format of the "Detailed Level" closely follows that of this report. The model specifies that the user should be able to narrow successively his choice of programs as he completes each level (in descending order).

The organization of content within each level is topical. A chronological order (following the steps taken by the developers) was tried and rejected early in the trials of the Unit. The topical order selected was based on as much empirical evidence as could be found. Where empirical justification could not be found to support

a particular ordering of topics, the judgment of the development staff was used.

2.7.1 What is the sequencing of the subdivisions?

As indicated, the units are sequenced so that each successive level of information is more inclusive and comprehensive than the last. Some repetition of information at each level is found in the next highest level.

2.8 How independent are the various elements or subunits?

Because of the repetition of information at each level in the next most detailed level, any level *may* be read first; it is not essential that a specific pattern be followed.

However, in order to save time, it is recommended that the user start with the first level and, on the basis of the information in that level, attempt to omit programs that do not meet his requirements. The assumption is that he will prefer not to read all of the material at the "Detailed Level" if he can omit programs unsuitable to his needs on the basis of briefer information at preceding levels.

2.9 What materials are provided at each level? In what quantity are they provided?

All materials in the Information Unit are in print form. Because classroom activities and materials in the social studies programs are not as highly visual as, by contrast, are those in science laboratory programs, the staff judged that an audiovisual presentation on each program was not essential for making decisions among the nine programs. This judgment was confirmed by field users during field testing. In addition, because it was to be used at the secondary school level, it was assumed that the unit would be used primarily by a small number of individuals rather than groups, so that printed material would be more convenient to use. This assumption was confirmed early in the field testing of the unit.

The levels of information in the unit include the following materials:

Summary and Intermediate Levels. Information presented at this level was designed: (a) to introduce the user to and inform him about the purpose and content of the Information Unit; (b) to suggest ways to review information in the unit; (c) to provide a general preview of the nine programs; and (d) to enable the user

to differentiate among the programs enough to select a few to review in detail.

A cartoon-and-print booklet, called the Preface, was developed to serve these purposes. This booklet contains a series of cartoons which briefly introduce the unit, describe the types of information provided, and explain how to use it; a Screening Aid, an optional part of the Preface, which enables the user to identify programs having his set of preferred characteristics; a Preview Chart, listing major characteristics of each program, such as content perspective, suggested curriculum use, grade level, readability level, etc., which can be used for initial review and comparison of the programs; nine Previews, each a brief narrative description revealing major content areas, specific topics and titles of materials, teaching strategy, and typical classroom activities of one program; and a Glossary, which defines some of the terms and characteristics used in the Preface and throughout the unit.

Detailed Level. This level provides comprehensive information about each program in the unit. This level is intended to provide the user with the detailed information he needs to be able to make a decision or recommendation regarding the appropriateness of each program for field testing, adaptation, adoption, or rejection in his school.

There is only one form of information at this level--the printed Report. Nine Reports, one on each program, are included in the unit. Each one is divided into seven sections of detailed information focusing on: (1) Goals and Objectives; (2) Content and Materials; (3) Classroom Strategy; (4) Student and Teacher Prerequisites; (5) Implementation: Requirements and Costs; (6) Project Development; and (7) Project History. In addition, there is a page of Basic Facts about the program at the front of each Report. This page repeats the summary information covered in various parts of the Preface.

The Operational Field Test Form of the Summary and Detailed Level were packaged in a 9" x 11" x 2" box, with the top side open for easy removal of booklets. The box could be stored on regular size library or bookcase shelves. Because of difficulties in finding a publisher who would comply with this format, however, the final release form will constitute a single, bound volume.

3.0 INSTRUCTIONAL STRATEGY

3.1 What is the instructional strategy of the Unit?

The instructional strategy underlying the Information Unit can be stated as a series of assumptions:

1. The curriculum-adoption, decision-making practices of schools are extraordinarily varied; no single model of how needs are assessed, goals and objectives identified, information about alternatives gathered and processed, and decisions made can be established among school organizations. It is assumed that the processes in most cases involve multiple, reoccurring encounters with needs, goals, and information--rather than a unidimensional model of the processes.

2. It is assumed that a great variety of personnel are involved--ranging from parents and students to teachers and administrators. It is also believed that the variation in information-processing behaviors is as broad within groups as it is among groups. In general, the process is assumed to involve both group and individual acts ranging over a period of time.

3. It is assumed that the types of information needed can be identified in scope and character but that the general order and form needed will vary greatly from one individual to another and from one group to another.

4. It is assumed that motivation to want and need the type of information provided by the unit must exist before coming to the unit; the unit cannot induce review and rational consideration of new alternatives leading to adoption unless the user is inclined in this direction.

5. It is also assumed that a mailable package of information about new curriculum projects is a necessary but not sufficient stimulus for rational decision-making; other types of materials and contacts must also be present to lead to the terminal behaviors of adoption, adaptation or rejection.

Most of these assumptions are untested and research about them is lacking. As a result, the choice of strategies was either to make a considerable initial effort to find evidence supporting or rejecting these assumptions or to begin development and attempt to establish supporting information as we went along. The latter course of action was the one adopted. In this specific case, the resulting design included these instructional characteristics:

1. Except for the initial instructions, the sequence for using the unit was not linear or discursive; entry to the body of the content was by multiple paths suiting the variety of styles used by individuals and organizations. Hence, the need for each major part to be relatively independent of the others. Redundancy exists where the prerequisite information is necessary to understand particular cognitive elements.

2. The information must cover a range wide enough to fit multiple needs; if an error is committed it should be on the side of comprehensiveness rather than exclusiveness.

3. Though motivation is presumed, the unit should provide sufficient "persuasion" that the user already inclined toward the use of such an approach will be induced to believe that the product is superior for his needs.

4. The unit must be flexible enough to be used as an auxiliary to other materials and in a variety of situations involving its use by "linking agents," peers, and such formal channels as pre-service education.

3.2 What various patterns of use are suggested?

The Operational Field Test version of the Preface suggests several alternative plans for individuals reviewing information provided in the unit; however, it recommends that groups using the unit devise a review plan unique to their particular situation and needs.

3.3 What preparation is required to use the Information Unit?

In the Preface to the Information Unit, suggestions are made as to how additional information and activities might be gathered to enhance the use of the unit. In general, however, the use of the unit requires nothing beyond the information provided.

4.0 USER PREREQUISITES

4.1 What skills, background or training are needed to use the Information Unit?

The Information Unit was designed so that users would need no special background or skills in order to use it successfully. During the course of field study, little or no relationship could be found between use of the unit and the following variables.

1. Urban/Rural Setting
2. School Size--Average Daily Attendance (range: less than 200, between 1,000 and 4,999)
3. Grades in School--All secondary grades 9-12 vs. senior grades 11-12 only incorporated in school
4. Purpose in Using the Unit (range: information resource, decision-making, preservice and inservice training)
5. Education Level (range: Student to Ph.D.)

4.2 What is the reading level of the Unit?

Laboratory staff used the Dale-Chall formula to determine the readability level of the Preface and the nine Reports in the Information Unit. The readability level ranged from 13th grade to college graduate. The average readability level for all 10 booklets was college graduate level.

5.0 IMPLEMENTATION: REQUIREMENTS AND COSTS

5.1 What type of physical setting is needed to use the unit?

It can be used under a variety of conditions: by one person at a desk or by small groups in an office or classroom.

5.2 What audiovisual equipment must be provided?

None.

5.2 What material must be purchased to replace consumable items?

Initially, the Preface was intended as a handout; three were packaged with the unit. However, in the final release form the unit will be a single item.

5.3 What type of classroom organization is required?

The question is not applicable.

5.4 What kind of administrative supervision is needed or recommended?

It is strongly recommended that administrators be involved with teacher groups in using these materials. In some field test situations where administrators were not present, the participants felt very frustrated because they felt that if they had wanted to adopt one of the new programs, no positive action could be anticipated without administrative understanding, support, and concurrence.

5.5 Is inservice training necessary to use the Information Unit?

No, the unit is self-contained, self-explanatory, and requires no training for use if directions are followed. (It should be noted that the unit can be used as part of an inservice training course for secondary teachers.)

5.6 How critical is a public relations or information effort prior to or during use of the unit?

None is required. It should be noted that the Information Unit can be used as part of a community or school information effort if one of the programs described is to be adopted.

5.7 What is the availability of the unit?

The unit will be available in February 1971.

5.8 Does the unit require materials developed by others?

No, but it should be noted that the programs described by the Information Unit are all available and actual teaching materials can be obtained directly from the publishers of these programs to supplement the use of the Information Unit in the decision-making process.

5.9 What does the Information Unit cost?

The cost is estimated at $7.95.

5.10 What descriptive information about the Information Unit is available?

A handout can be obtained from the Far West Laboratory. Copies of this report are also available.

6.0 PROJECT DEVELOPMENT AND EVALUATION

6.1 Why was the project initiated?

The developers of the American Government Information Unit proposed to collect, analyze, synthesize, and disseminate information about new curriculum developments in secondary level social studies to school personnel responsible for curriculum decision-making. The need for this type of processed information seemed clear. Numerous new products have become available within the past decade; yet school personnel often do not have the time to identify them and then gather and process information to ascertain which are suitable to their needs. Furthermore, developers, as well as other agencies responsible for research and development in education, have not, in the past, planned adequately for dissemination of information in a format and style acceptable to and feasible for school personnel.

The field of social studies was selected for this project because the need for information about current developments in the field was particularly acute. This decision was supported by the results of two surveys conducted within the area served by the Far West Laboratory. One study (conducted by the ESEA Title III Pace Center in Solano, Sonoma, Napa, and Marin counties in California) showed that social science tied for second among 20 curriculum fields which had the highest amount of divergence between what is and what should be. In the other Bay Area study, the Laboratory found that social science was third highest among ten fields of which teachers and principals expressed interest about new developments.

It should be noted also that development of the American Government Information Unit was initiated to further refine and evaluate the model of the information processing system under development by the Laboratory. In particular, the Unit was intended to determine the applicability of the model for a secondary school level audience and to determine the feasibility of and receptivity to an all-print, rather than multi-media, information format.

6.2 What is the research base of the development?

At the outset of the development of the Information Unit, very little was known about what kind of information, arranged in what order and in what form, school personnel need to make what decision. A significant body of social science research and knowledge has been developed in the area of dissemination and adoption of developments including those in education, but little is known about the

information required to activate such dissemination-adoption cycles. Probably the area with the most sophisticated base for such a development is advertising. Unfortunately, not only is much of the practice in advertising relatively intuitive and judgmental, but what research has been done focuses on activating psychological principles and processes that are inappropriate to the rational decision-making process prescribed for the Information Unit. In short, no claim can be made that a research base existed for the development of the product. (Most of the untested assumptions behind the unit are listed in Section 3.0 of this report.)

The form of the unit was influenced somewhat by experience with an earlier Information Unit, the Elementary Science Information Unit. For example, experience with that unit indicated that users were less interested in some kinds of information (e.g. project history) than in others (e.g. teaching strategy). However, the difference between the two units and the proximity in time of their development did not allow too much impact upon one by the other.

6.3 Through what stages has the development gone? What were the important conditions at each stage?

The development of the American Government Information Unit followed the cycle specified for developing all major products of the Far West Laboratory. The major steps included:

Initial Planning. Review of the literature, initial planning, consultation with a panel of experts in the field and site visits to projects were initiated in June of 1968. Conceptualization of the model and prototype form were completed in the Fall. An initial development plan, consultant records, description of proposed models, and other working papers document this early phase.

Preliminary Product Development. Preparation of materials for preliminary field testing began in December 1968, and continued through the end of January 1969. The preliminary form consisted of the following materials at each level (see Section 2.0 for explanation of nature and purpose of each level).

The summary level included: (1) an audio tape presentation, the "Overview," discussing background, trends, and materials relevant to social studies curriculum reform and development; (2) a printed "Program Characteristics Guide," listing alternative characteristics which could be used in selecting programs to review in detail; (3) a printed, hole-punch set of sheets, the "Program Selection Device," used to identify and select programs having specified characteristics; and (4) a printed booklet, "Program Summaries," containing one-page narrative descriptions of each

program with emphasis on significant features.

The detailed level offered complete "Reports" on three programs (SRSS, HSSC, and HSCCGP). Each report provided detailed information about one program in terms of 14 categories, which were: Goals and Objectives, Philosophy, Content, Organization of Content, Materials, Administrative Requirements, Evaluation, Organizational Background, Costs, Research and Development Procedures, Student Testing and Evaluation, Classroom Procedures, Teacher Prerequisites and Preparation, and Student Prerequisites. The 14 sections of information were organized differently for each report: in one, the sections were arranged according to a "teacher's model" for order importance of information needed; in the second, according to an "administrator's model;" and the third, according to a "chronological model." The various models were based upon hypothetical differences projected by the project staff. The purpose of presenting three different models or organizations of information was to examine user priorities regarding importance and order of information needed.

Preliminary Field Test (PFT). The Preliminary Field Test took place in February 1969, with 19 field test subjects from the Bay Area. All subjects were active, "innovative" teachers and administrators with some post graduate education. The test was administered in the Laboratory.

Subjects judged that the objectives of the unit were worthwhile and that the approach being taken was likely to achieve the objectives. Subjects indicated that all parts of the unit, except the Overview tape, were necessary and interesting. The staff concluded that the unit had a strong potential for success and that the Overview should be discarded.

As part of the PFT, an experiment was conducted to determine what order of information subjects preferred in the reports. The sequence indicated by subjects was used in reorganizing the reports.

Main Form Development. Preparation of the performance or "main" form of the Information Unit began in March, 1969, concurrent with the analysis of preliminary field test results. Development continued through April 1969, and resulted in the following elements:

At the summary level there were: (1) two versions of a Preface, one in print and the other in cartoon-and-print. Each Preface provided an introduction to the unit, described its contents, and suggested alternative ways to use it (this replaced the PFT audio-

tape Overview); (2) a "Program Selection Guide," a booklet combining the former Program Characteristic Guide and a revised, "carbonized" form of the PFT Program Selection Device; and (3) a Program Summaries booklet, containing the one-page narrative descriptions of each program and, in addition, a chart summarizing major features of all programs.

The detailed level again consisted of reports--on six of the programs. Based on PFT results, the number of sections of information in each Report was reduced to nine; these sections were arranged in the following order: (1) Goals and Objectives; (2) Content and Materials; (3) Classroom Procedures; (4) Origin and History; (5) Research and Development Procedures; (6) Student and Teacher Prerequisites; (7) Evaluation; (8) Administrative Requirements; and (9) Costs. In addition, packets of original materials, including project proposals, evaluation reports, journal articles, and student and teacher manuals, were compiled on two additional programs to field test the user preference for organized descriptive booklets vs. unorganized, primary materials.

Main Field Test (MFT). The Main Field Test was conducted in the field. A purposive sample of 48 respondents from nine school sites was selected to approximate the following conditions; (a) secondary school personnel within a 250-mile radius of the Laboratory; (b) positions as secondary school social studies teachers, principals, curriculum specialists and/or administrators; (c) interest in innovation. Testing took place in the Summer of 1969.

The IU was successful in achieving its objectives. Respondents were able to make acceptable decisions about most IU programs. In addition, the IU reduced the need for further information and led subjects to review the programs which best fit their needs.

Participants indicated, however, that the IU had too many separate pieces and that certain sections needed simplification.

The data from the Main Field Test were not as conclusive as the staff had hoped, however, and it was decided to retest the objectives at the same time the operational testing of the product was done.

Main/Operational Form Development. Following the Main Field Test, the product was prepared for operational use. The revised form included:

Preface: This included in one booklet: (a) an introductory section, introducing users to trends in secondary social studies and describing how to use the IU; (b) a screening aid, to help users

decide which programs in the IU to review in detail; (c) a preview chart, summarizing major features of all programs; (d) program previews, or summaries of each program; and (e) a glossary, defining the characteristics listed in the screening aid.

Reports: Updated and slightly revised reports were prepared. The package was boxed for mailing; it included general directions for use on the side of the box.

Combined Main/Operational Field Test (M/OFT). A combined Main/Operational Field Test was conducted in the spring of 1970. Two groups were selected to review the IU under main or performance conditions, i.e., with laboratory supervision; and two groups reviewed the unit under operational conditions, i.e., on their own. Twenty-three secondary schools in Iowa were matched on the basis of number of decision-makers, formality of decision-making group, authority of decision-making group, and experience with the programs described in the unit. Half of the schools were randomly selected as main or performance sites and half as operational sites. The other two groups were selected to balance the possible uniqueness of the all-Iowa schools. Sites were chosen to represent southern, eastern, and western states, and to be replications of the Iowa study. Assignment of these non-Iowa schools to the Main Field Test conditions was uncontrolled. These participants were given a choice of conditions. (This was necessitated by the added time and expense required for a Performance Field Test; the staff could not provide the necessary control at the widely separated non-Iowa sites.)

TABLE 2

Number of Subjects in Main/Operational Field Test

	Operational Subjects/Sites	Performance Subjects/Sites
Iowa	21/12	22/11
South	2/1	0/0
East	16/11	0/0
West	9/3	15/8

During this combined Main (MFT) and Operational (OFT) Field Test, "main" subjects reviewed all parts of the IU and followed review instructions, including the requirements that they review all programs through the "summary" level and that they read at least three Reports. With the Operational Field Test sites, no controls were exerted over whether the schools used the Information

Units or not; nor were controls exerted over how they were used. The only conditions for operational use were the prior agreement to return the Information Unit by mid-June, to complete a questionnaire, and to permit a Laboratory staff person to conduct an interview with a representative of the group. No Laboratory representative was present at or participated in the use (or non-use) of the package. This absence of control was purposeful; the intent of the Operational Field Test is to determine if the product could "stand on its own" as a mailable, self-explanatory unit.

A detailed report on the results of this combined Main/ Operational Field Test can be found later in this report.

Final Product Revision After the Operational Test. The Preface was revised in line with suggestions from field test users; in particular, the screening aid was greatly simplified. In addition, the reports have been updated. Because of publishing constraints, the Information Unit was published as a single 8-1/2x11" bound volume.

6.4 What evaluation has been carried out at the various stages of the project's development?

Three major field tests of the American Government Information Unit were conducted. The first, the preliminary test, a feasibility test, was largely a non-quantitative investigation relying heavily on staff judgment. The results, in effect, convinced the staff that there was a need for the product and that the general format proposed probably would fill the need.

The Main and Operational Field Tests were empirical, quantitative studies conducted to determine whether the Information Unit could, in fact, meet the objectives set for it. These objectives were of three types: (1) cognitive objectives--knowledge, comprehension, application, and evaluation of information; (2) enabling objectives--intermediate objectives believed necessary for the unit to meet cognitive and affective objectives; and (3) affective objectives--value to and liking of the Information Unit by users. Each objective was defined in terms of several specific objectives that could be measured in terms of user performance (behavioral objectives) and expert judgment; conditions for testing were specified and tentative standards set. (See Chapter 1.0 above for more detail.)

Two significant questions that could have been asked but were not are these: First, do school people adopt programs as a result of using the Information Unit? No answer to this question has been provided because the purpose of the Information Unit was to enable people to consider these new programs rationally--with rejection

or adaptation being equally viable courses of action. Second, does the Information Unit enable school personnel to select programs (curricula) that will result in the most student learning? An answer to this question was not sought because of two constraints: (1) at least two years would be required to study the effects on students of a single curriculum selection and (2) at least quasi-experimental conditions would be required to simultaneously study the effects of rejected alternatives in order to provide such a comparative test of the effect of not using the IU.

Results of the evaluation of the combined Main/Operational Tests are summarized below. On the basis of these results, it was concluded that the objectives were successfully met. A detailed report of results can be found in the Appendix to this report.

Summary of Results

Objective	Test	Standard	Result	Conclusion Pass	Fail
Cognitive: a. (Knowledge) The user will know major characteristics which differentiate programs	Subjects will identify as true or false statements describing major characteristics of programs	Subjects will score significantly higher than 50% correct. (.10 level)	MFT-Iowa, t=3.4, p<.005; OFT-Iowa, t=1.72, p<.05; MFT-Other, t=4.95, p<.0005; OFT-Other, t=4.57, p<.0005.	X X X X	
b. (Comprehension) The user will derive useful implications about programs	Subjects will indicate agreement or disagreement with statements based on facts about programs	Subjects will score significantly higher than 50% agreement with Laboratory staff. (.10 level)	MFT-Iowa, t=3.6, p<.005 OFT-Iowa, t=1.69, p<.10 MFT-Other, t=4.95, p<.0005 OFT-Other, t=2.43, p<.025	X X X X	
c. (Application) The user will apply information about programs to his own situation.	Subjects will indicate whether each program fits their 5 most important needs and the decision they would make regarding it.	The majority of subjects' decisions will be consistent with their estimates of how well each program meets their needs, i.e. positive decisions regarding programs which meet their needs and "reject" decisions about programs which do not.	MFT-Iowa and OFT-Iowa: The majority of subjects' decisions were consistent with their estimate of how well each program meets their needs.*	X	

*Not tested with MFT-Other and OFT-Other samples.

Objective	Test	Standard	Result	Conclusion Pass	Fail
d. (Evaluation) The user will judge whether he would adopt, adapt, or reject programs	Subjects will indicate for each program one of the following courses of action: reject program, send for sample materials, pilot test program, adopt program	50% or more subjects will decide on a course of action for at least 6 of the 9 programs	MFT-Iowa: 71% OFT-Iowa: 38% MFT-Other: 60% OFT-Other: 60%	X X X	 X
Affective: a. (Attention and Response) The user will attend to the IU	Subjects will indicate attention and response via 5 unobtrusive measures.	1. There will be no more than 10% attrition of the sample	1. MFT- and OFT-Iowa* less than 10% attrition	X	
		2. 70% or more subjects will complete over 70% of the questionnaire items	2. All samples: over 70% of the questionnaire items were completed by more than 80% of the subjects	X	
		3. 80% or more subjects will be able to indicate agreement or disagreement with statements about IU parts	3. Over 80% of the Iowa sample* indicated agreement or disagreement	X	
		4. 80% or more subjects will indicate they would recommend an expanded version of the IU; 80% or more will indicate they would recommend IUs in other secondary areas	4. All samples: over 90% said they would recommend an expanded version; over 80% indicated they would recommend IU's in other areas	X	
		5. Subjects will spend time with the IU	5. OFT subjects spent about an hour with the Preface and over an hour with the reports	X	

*Not tested with MFT-Other and OFT-Other samples.

Objective	Test	Standard	Result	Conclusion Pass	Fail
b. (Value) The user will value the IU above other secondary sources of information about programs and about as highly as *most primary* sources	Subjects will rate sources of information about new programs on 7-point scales of "useful-useless" and "easy to use-difficult to use"	The IU will be rated higher than all secondary sources on both "useful" and "easy to use", and as high as one or more primary sources on useful and/or easy to use	MFT-Iowa: the IU was rated higher than all secondary sources and, on "easy to use," as high as 3 primary sources.	X	
			OFT-Iowa: the IU was rated higher than all secondary sources and, on both useful and easy to use, more than 1 primary source	X	
			MFT-Other: one secondary source was rated higher than the IU		X
			OFT-Other: the IU was rated higher than all secondary sources and, on useful, higher than 1 primary source, on easy to use, higher than all primary sources	X	
Enabling: a. (Paralel Treatment) Programs will be treated in a parallel manner	Program developers will judge whether the standard treatment caused the omission of any important information	All 9 developers will approve reports on their programs	All 9 developers approved reports	X	

Objective	Test	Standard	Result	Conclusion Pass	Fail
g. (Relevance) Areas of highest priority or relevance will be treated by the IU	Consultants, users, and staff will compare the IU's priorities against state and local priorities	N.A.	All groups agreed the focus of the IU was justified	X	
h. (Uniqueness) The IU will not represent a duplication of effort	The IU will be analyzed in relation to other available sources	Existence of no superior or equal comparable source	All sources analyzed were judged less effective than the IU	X	
i. (Cost-Effectiveness) The user will perceive that the reward for using the unit justifies the time and cost involved	Subjects will indicate on six 7-point scales the usefulness, personal benefit, enjoyment, financial cost, time cost, and effort cost involved in using the IU	The 3 "reward" values will exceed the 3 "cost" values	OFT-Iowa*: the average over the 3 reward scales over all subjects was 5.61; the average over the 3 cost scales over all subjects was 3.62	X	

*Not tested with MFT subjects or OFT-Other subjects.

6.5.1 Was there any revision made in the product from the time of its final evaluation to its general release?

The Preface and Reports were revised and updated, and the unit was packaged as a single bound volume.

6.5.2 What effect did these revisions have?

This has not yet been ascertained. Presumably, since much revision was based on earlier evaluation data, it will improve the effectiveness of the unit.

6.6 Have any independent evaluations been made?

None have been reported.

6.7 What evaluation is still being conducted or is planned for?

No specific additional evaluation is anticipated, but the developer plans to continue research and development in the area of curriculum information systems and analysis.

7.0 PROJECT HISTORY

7.1.1 What is the name of the educational product?

The American Government Information Unit.

7.1.2 By what other names or acronyms is (or has) the program been known?

Originally, the unit was termed "Integrated Information Unit." It was often called the "IIU" for short. It was also called the Information Unit on Secondary Social Studies Programs.

7.1.3 What organizations are responsible for the development of the program?

The Communication Program of the Far West Laboratory for Educational Research and Development.

The address is: 1 Garden Circle, Hotel Claremont, Berkeley, California.

7.1.4 Who is in charge of the project?

Dr. C. L. Hutchins is in charge of the Information System Component responsible for the development of the Information Unit.

Dr. John Hemphill is Director of the Far West Laboratory for Educational Research and Development.

7.2.1 In what year was the project initiated?

1968.

7.2.2 In what year will the project be concluded?

The major development of the American Government Information Unit will be concluded during 1970; a monitoring and updating activity will continue indefinitely.

7.3.1 What is the principal source of funding?

Title IV of the Elementary and Secondary Education Act; administered by the Bureau of Research, the U.S. Office of Education.

7.3.2 What is the total investment that has been made in this project?

$185,000.

7.4 Who is the commercial publisher?

Lockheed Educational System.

7.5 Who are people who have had major roles in the project development?

Credit must go to staff of the Information System Component of the Communication Program of the Far West Laboratory for Educational Research and Development. Those most closely associated with the development are: Nancy Adelson and Sandra Crosby, who comprised the project development team; Linda Sikorski, who directed evaluation; Diane Howland and Fannie Walton, who supervised field tests; Jean Sims, who supervised production; C. L. Hutchins, Project Director; and Paul D. Hood, Director of the Communication Program of the Far West Laboratory for Educational Research and Development.

APPENDIX

MAIN/OPERATIONAL FIELD TEST RESULTS

Results of the evaluation of the combined Main/Operational Tests are as follows:

1. Cognitive Objectives: Does the IU provide knowledge, comprehension, application, and evaluation of information about American government programs? The field tests indicate that it does. The performances that were required during the Main Field Test (MFT) and Operational Field Test (OFT)[6] and the results of this testing are as follows:

a. (Knowledge): After using the IU, subjects will, without guessing, correctly identify as true or false significantly more than 50% of a set of statements describing major characteristics of programs. The statements were derived from lists which contained major points report writers were trying to get across about the programs. (MFT subjects were required to read at least three program reports; OFT subjects were not required to read any specific number of reports.) Subjects were asked to respond to items regarding the three programs with which they felt most familiar. The subjects were instructed not to guess at answers; rather they were to indicate "don't know" wherever they were not sure of an answer. To determine whether subjects scored significantly higher than 50% correct, the null hypothesis, $\mu=50$, was tested against the research hypothesis, $\mu>50$. All sample means are significantly higher than 50% correct (MFT-Iowa, $t=3.4$, $p<.005$; OFT-Iowa, $t=1.72$, $p<.05$; MFT-Other, $t=4.95$, $p<.0005$; OFT-Other, $t=4.57$, $p<.0005$.

Thus, after using the IU, Field Test sample means were higher than 50% correct. This is reflected in the confidence intervals we can compute for each sample.[7] They are as follows (based on

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[6]These include matched OFT and MFT samples in Iowa and MFT and OFT samples in western, eastern and southern states. See below for description of these samples. Sample sizes are: Iowa MFT, n=22, Iowa OFT, n=21, non-Iowa MFT, n=15; non-Iowa OFT, n=27. Reports of results may occasionally be based on slightly smaller sample sizes since there were sometimes non-respondents for particular questions or measures, particularly at the operational sites.

[7]The level of confidence is the probability that a sample interval will include the population mean. Thus, it is 90% "sure" or "confident" that the above four intervals do include the means of the corresponding populations.

90% level of confidence):

MFT-Iowa	58.62 - 69.72
OFT-Iowa	51.28 - 59.92
MFT-Other	66.36 - 78.64
OFT-Other	61.57 - 71.07

It should be noted that the lower limit of each interval is above 50%.

Results did not change when schools rather than individuals were used as the unit of analysis.

Over 70% of subjects in each of the two MFT and two OFT samples achieved scores of 50% or higher. Mean scores are as follows (standard deviations are indicated in parentheses): MFT-Iowa, 64.17% (S=17.7); OFT-Iowa, 55.60% (S=14.55); MFT-Other, 72.5% (S=17.02); OFT-Other, 66.32% (S=15.56).

MFT subjects completed "Before" and "After" knowledge tests. The knowledge increase among Iowa MFT subjects was significant ($t=12.52$, $p<.0005$).[8]

b. (Comprehension): After using the IU, subjects will receive scores significantly higher than 50% correct when indicating agreement or disagreement with statements which represent implications based on facts about programs they reviewed. (MFT subjects were required to read at least three program reports; OFT subjects were not required to read a specific number of reports.)

As discussed earlier, it was necessary to reject the null hypothesis, $\mu=50$, to determine if subjects performed significantly higher than standard. Again, they did. Results for MFT-Iowa are significant ($t=3.6$, $p<.005$); results for OFT-Iowa subjects are significant ($t=1.69$, $p<.10$); and for MFT-Other ($t=4.95$, $p<.0005$); and for OFT-Other ($t=2.43$, $p<.025$).

Confidence intervals are as follows, using .90 as the level of confidence:

MFT-Iowa	56.47 - 63.97
OFT-Iowa	51.28 - 60.82
MFT-Other	56.94 - 72.88
OFT-Other	54.58 - 65.64

[8]MFT-non-Iowa "Before" scores were too spotty for this analysis.

70% or more of each sample received scores as high or higher than 50%. Mean scores were as follows (standard deviations are in parentheses): MFT-Iowa, 60.22 (S=11.97); OFT-Iowa, 56.05 (S=16.08); MFT-Other, 64.91 (S=19.31); OFT-Other, 60.11 (S=18.15).

MFT-Iowa subjects completed Before and After measures of comprehension. The comprehension increase among MFT-Iowa subjects was highly significant ($t=14.78$, $p<.0005$); among non-Iowa MFT subjects, it was also significant ($t=5.62$, $p<.0005$). When scores are compared for the matched Iowa MFT and OFT schools (MFT-Before vs. OFT-After), there is an increase from MFT-Before to OFT-After which is significant ($t=7.17$, $p<.0005$).

c. (Application): After using the IU, subjects will indicate how well each IU program meets their five most important needs and/or constraints. They will also indicate a decision (adopt, pilot test, reject, or send for sample materials) for each program. Subjects' decisions about each program will be consistent with their estimates of how well each program meets their needs. That is, if a subject reports that a program meets his needs, he will decide to investigate the possibility of adopting it; otherwise, he will reject it.

Field test subjects were asked two questions. First, they were asked to indicate for each program they reviewed whether it met none, some, or all of their five most important needs. Second, they were asked to indicate a decision for each program they reviewed, i.e. whether they would adopt or pilot test all or part of it, reject it, or send for sample materials regarding it. Subjects' responses to the two questions were considered together such that each subject indicated one of the following response combinations for each program he reviewed:

(A) "The program meets none or less than half of my needs and I would reject it."

(B) "The program meets none or less than half of my needs and I would send for sample materials."

(C) "The program meets none or less than half of my needs and I would pilot test or adopt all or part of it."

(D) "The program meets all or more than half of my needs and I would reject it."

(E) "The program meets all or more than half of my needs and I would send for sample materials."

(F) "The program meets all or more than half of my needs and I would pilot test or adopt all or part of it."

These six response combinations can be represented in Table 3.

TABLE 3

	I would reject program	I would send for sample materials	I would pilot test or adopt all or part of the program
Program meets none or less than half of my needs	A	B	C
Program meets all or more than half of my needs	D	E	F

To assess whether subjects' decisions were consistent with their needs, certain predictions were made regarding the relative number of occurrences of the six possible response combinations. If the letters in the table are replaced by the number of occurrences of the corresponding response combinations, the following should be true:

The number in cell F will be greater than the number in D.
The number in cell A will be greater than the number in C.
The number in cell F will be greater than the number in C.
The number in cell A will be greater than the number in D.
The number in cell E will be greater than the number in B.

To elaborate, where subjects indicate that a program meets all or most of their needs, they should be more likely to adopt or pilot test it than to reject it; where subjects indicate it meets few or no needs, they should be more likely to reject it. Similarly, subjects who feel programs meet their needs should be more likely to send for materials or adopt or pilot test than subjects who feel programs don't meet their needs; however, they should be less likely to reject.

Results were tallied for Iowa subjects. Each respondent made one of the six responses for each program he reviewed. Thus, the number of responses for any one subject is equal to the number of programs he reviewed. For 21 MFT respondents, there were 64 responses altogether; for 16 OFT respondents, there were 59 responses.[9] Tables 4A and 4B show the numbers of occurrence of each of the six response combinations over the two Iowa samples.

[9]Non-respondents were subjects who responded only to the decision question and did not respond to the needs question.

TABLE 4A

MFT-Iowa

	I would reject program	I would send for sample materials	I would pilot test or adopt all or part of the program
Program meets none or less than half of my needs	A 6	B 0	C 6
Program meets all or more than half of my needs	D 1	E 24	F 27

TABLE 4B

OFT-Iowa

	I would reject program	I would send for sample materials	I would pilot test or adopt all or part of the program
Program meets none or less than half of my needs	A 5	B 4	C 2
Program meets all or more than half of my needs	D 2	E 37	F 10

Thus, over the OFT sample, all the predictions were borne out; over the MFT sample, all but one of the predictions were borne out. Among MFT subjects, the number of A occurrences was equal to rather than greater than the number of C occurrences. That is, subjects who felt programs met less than half of their needs were as likely to adopt or pilot test them as to reject them. However, the prediction that they would more often reject them was somewhat weaker than the other predictions made, since it presumed that a program meeting only one or two needs, even if they were important ones, would not be worth pilot testing all or part; obviously, this would not always be the case.

Since the above tables are biased in favor of subjects who reviewed and responded for more programs, a method was devised to choose just one program per subject.

Each subject responded for at least one program. If he responded for only one, that response was tallied. If he responded for more than one, the response for the second, or third, or fourth program he

reviewed was tallied in accordance with the plan: choose a program which is different from that chosen for the preceding subject and the following subject. Over the 21 MFT respondents and the 16 OFT respondents, the responses shown in Tables 4C and 4D occurred.

TABLE 4C

MFT-Iowa

	I would reject program	I would send for sample materials	I would pilot test or adopt all or part of the program
Program meets none or less than half of my needs	A 3	B 0	C 3
Program meets all or more than half of my needs	D 1	E 8	F 6

TABLE 4D

OFT-Iowa

	I would reject program	I would send for sample materials	I would pilot test or adopt all or part of the program
Program meets none or less than half of my needs	A 3	B 0	C 0
Program meets all or more than half of my needs	D 0	E 9	F 4

Results of the analysis depicted in Tables 4A and 4B were replicated. It was concluded that subjects' decisions were consistent with their needs.

d. (Evaluation): Having used the IU, 50% or more subjects will decide on a course of action[10] regarding at least six of the nine programs. Here a puzzling result was noted. On the one hand, MFT-Iowa subjects, MFT-Other subjects, and OFT-Other subjects

[10]Reject, send for materials, pilot test, or adopt.

passed easily: over 60% made decisions for at least six of the nine programs. However, only 38% of OFT-Iowa subjects made as many as six decisions. Table 5 shows these results.

TABLE 5

Percent of Subjects Making Decisions
for 0, 1, 2, 3, 4, 5, 6, 7, 8, or 9 programs

No. of programs	MFT-Iowa N=21 % Ss.	Cum. %	OFT-Iowa N=21 % Ss.	Cum. %	OFT-Other N=27 % Ss.	Cum. %	MFT-Other N=14 % Ss.	Cum. %
9	62	62	33	33	47	47	40	40
8	9	71	0	33	10	57	13	53
7	0	71	5	38	3	60	7	60
6	0	71	0	38	0	60	0	60
5	0	71	0	38	7	67	0	60
4	0	71	5	43	3	70	0	60
3	24	95	33	76	13	83	20	80
2	0	95	14	90	3	86	13	93
1	5	100	5	95	3	89	0	93
0	0	100	5	100	10	99	7	100

If the percent making a decision for each of the nine programs is considered, it is found that a majority of all samples--even OFT-Iowa--make decisions for at least sever programs. Table 6 shows these results.

TABLE 6

Percent of Subjects making decisions for each program

Program	MFT-Iowa N=21 Dec.	No Dec.	OFT-Iowa N=21 Dec.	No Dec.	OFT-Other N=27 Dec.	No Dec.	MFT-Other N=14 Dec.	No Dec.
SRSS	85%	15%*	57%	43%	77%	23%	73%	27%
Amherst	76	24	52	48	70	30	73	27
Law	81	19	57	43	67	33	53	47
HSC	71	29	52	48	70	30	73	27
ERC	76	24	48	52	63	37	53	47
HSSC	71	29	67	33	67	33	60	40
LFC	81	19	52	48	70	30	73	27
Harvard	90	10	57	43	77	23	73	27
USU	90	10	43	57	60	40	67	33

*The percentages for a given set of subjects add to 100% because subjects were asked to make "decisions" about all of the programs in the information unit--regardless of the number of programs they studied in "detail" by reading the Reports.

At first glance this seems paradoxical; however, such a result occurs because OFT-Iowa responses distribute themselves fairly evenly over all programs. That is, subjects making only two or three decisions tended to make them for different programs, such that for seven of the programs, about half of the sample made decisions.

The evidence supports the IU as a decision-making tool; in 3 of 4 samples, users could make at least 6 decisions, and in all 4 samples, a majority made decisions about most or all programs.

In asking why OFT-Iowa subjects performed so poorly relative to the other groups, the patterns of use recorded by subjects was analyzed. It was found that while all MFT subjects used the "Screening Aid" (they were required to) and while all but one of the OFT-Other sample used it, only half (11 of 21) of the OFT-Iowa sample used it. Table 7 was derived from the data on 79 subjects who reported their patterns of use.

TABLE 7

Use of Screening Aid as Related to Number of Decisions Made

	Made fewer than 6 decisions	Made 6 or more decisions
Used Screening Aid	24	44
Did not use Screening Aid	8	3

Since all but one of the non-users of the Screening Aid were OFT-Iowa subjects and since the distribution of these non-users between those making more than six decisions and those making less than six was disproportional to the trend at large, we are free to conclude that the use of the Screening Aid was regularly accompanied by an increase in the number of decisions made. Whether the use of the Screening Aid *caused* the increased decision making cannot be determined. However, it seems warranted to recommend the use of the Screening Aid to all users.

Why is the Screening Aid useful--but not used? By design, the Screening Aid is meant to enable users to reject programs from consideration without having to review them, and there were data from MFT-Iowa subjects that they could, in fact, reject programs after using the Screening Aid. Further evidence that the Screening Aid fulfilled its function was also reflected in the final decisions made by subjects. Those who used the Screening Aid made proportionately more "reject" decisions and fewer of the indefinite "write for sample materials" decisions. Thus, it is possible that the Screening Aid (or some similar device) is necessary to help subjects make decisions. If they have to depend on the Reports alone, they probably are faced with too much information to sift through it efficiently. The main strength of the Screening Aid seems to be that it helps subjects to make a few definite decisions and to decide which of the nine reports to read.

Unfortunately, the utility of the Screening Aid is not obvious. This conclusion is supported by results from MFT-Iowa subjects when they were asked to indicate agreement with the following statement: "I wouldn't use the Screening Aid unless directed to do so." Forty-two percent indicated that they agreed with the statement and 16% indicated they neither agreed nor disagreed. Thus, if this sample had not been required to use the Screening Aid, results might have been close to those obtained for the OFT-

Iowa sample. About 50% of the MFT-Iowa sample also agreed with the following: "The directions for the Screening Aid were too complicated to follow," or "The Screening Aid was awkward to use." Thus the utility of the Aid must be made clearer, and its ease in use improved.

2. Affective Objectives: Is the IU attended to, responded to, and valued? The field tests indicate that it is. Required performances and results are as follows:

a. Given the opportunity and a reason to use the IU, subjects will attend to it, and will become involved with it. This will become apparent via a number of unobtrusive measures: Attrition: There was less than 10% attrition of the Iowa sample from beginning to end of the field test; Cooperation: Over 70% of the questionnaire items were completed by 80% or more of the Iowa subjects and the non-Iowa subjects; Recognition of parts: Over 80% of the Iowa samples were able to indicate some extent of agreement (as opposed to "don't know" or "neither agree or disagree" responses) with statements made about the various pieces (Screening Aid, Glossary, Reports, etc.) of the IU; Recommendation: When asked if they would recommend that their school use an expanded version of the IU, over 90% of all four samples said "Yes." When asked if they would recommend IU's in other secondary subject areas, over 90% of three of the four samples said "Yes," and 85% of the MFT-Iowa sample said "Yes;" Time Spent: MFT subjects had to spend a predetermined amount of time with the Preface; OFT subjects could use it as they pleased. Among 34 subjects in the two OFT samples for whom we had relevant data, 29 spent over 45 minutes with the Preface; 13 of these spent over an hour. Of the 34, the majority (31) spent over an hour with the Reports; the majority of these (18) spent over two hours with them, and seven subjects spent over four hours.

It was felt that involvement with and attention to the IU were indicated by the above five observations.

b. Given a list of possible sources of information for getting adequate information about new programs, subjects will indicate that the IU is among the most useful and easy to use and is more useful and easy to use than all "secondary" sources, i.e., sources not providing direct contact with programs or colleagues. MFT and OFT subjects rated a number of sources, including the IU, on seven-point semantic differential scales of "useful-useless" and "easy to use-difficult to use." Tables 8 and 9 show results of these ratings over the four subject groups.

TABLE 8

Mean Ratings by Subjects on "Useful"				
	MFT-Iowa	OFT-Iowa	MFT-Other	OFT-Other
Journals*	5.06	5.43	5.57	5.48
Conversations	5.95	6.05	5.64	6.22
Conventions*	4.48	4.25	4.64	5.58
Consultants*	4.86	4.95	4.64	5.56
Publishers*	4.62	4.65	4.14	5.26
Site visits	5.95	5.57	6.43	6.50
Workshops	5.62	5.81	5.93	6.30
Pilot projects	5.71	5.45	6.14	6.31
IU	5.33	5.67	5.43	6.26

TABLE 9

Mean Ratings by Subjects on "Easy to Use"				
	MFT-Iowa	OFT-Iowa	MFT-Other	OFT-Other
Journals*	4.19	4.71	4.93	5.56
Conversations	5.67	5.05	5.86	5.58
Conventions*	3.95	3.05	3.79	4.65
Consultants*	3.38	4.20	3.79	4.24
Publishers*	4.10	4.05	3.43	5.15
Site visits	3.48	4.29	3.71	4.42
Workshops	3.71	4.95	4.43	5.15
Pilot projects	3.86	3.90	4.57	5.27
IU	5.05	5.33	4.29	5.89

*"Secondary" source: indirect contact with the project. (Primary sources include interpersonal and direct contact with the project.)

TABLE 10

Mean Scale Values for Sources, Useful x Easy to Use

	MFT-Iowa	OFT-Iowa	MFT-Other	OFT-Other
Journals	21.43	26.52	28.50	31.00
Conversations	34.67	30.38	33.79	34.67
Conventions	18.33	14.25	18.50	27.88
Consultants	16.76	21.90	19.36	25.40
Publishers	19.29	20.45	15.93	28.41
Site visits	20.86	24.95	24.50	29.08
Workshops	21.86	29.76	28.64	31.81
Pilot Projects	22.95	21.80	28.50	32.85
IU	28.48	31.05	26.29	37.37

3. Enabling Objectives: Is the IU a feasible means for reaching stated terminal objectives?

Many of the following criteria are judged "successful" by subjective and admittedly biased judges. With additional time and money all could have been submitted to empirical, quasi-experimental confirmation. Because they were defined as enabling or subordinate objectives, however, it was thought that the detailed field testing of these objectives would be appropriate only if the terminal (cognitive or affective) objectives were not met.

a. *Parallel treatment:* Programs will be treated fairly and in a parallel manner. The perception of developers will be most important in judging successful achievement.

Presence of parallel treatment was confirmed by asking the developers of the nine programs whether the use of a standard format for the Reports caused the omission of any important information about their programs. None of the nine felt that any important material had been omitted.

b. *Accuracy:* The information provided to the user must be accurate. Measurement can be provided by seeking the judgment of the developers.

Following the OFT, each developer was asked whether the report on his project was accurate. If not, he was to list any inaccuracies. Developers found the report accurate; noted minor corrections to be made; noted major corrections to be made. For the most part, these corrections consisted of updatings or the addition of information which had not been available when the OFT version of the reports was written. The corrections were incorporated into the final version of the IU.

c. *Consistency:* Consistency is closely related to accuracy; more specifically, it concerns the need to say the same things in the same way at the several levels of information.

Consistency was tested by asking the developers to indicate errors in all of the levels of information. Only one of them mentioned a discrepancy (two different warehouses of the publisher were given as the correct address). An appropriate correction was made.

d. *Objective treatment:* All statements of fact must be supported by the ability of a number of judges to look at the same information and draw the same conclusions about its nature. The developers should not perceive any bias in the IU.

This objective was estimated by asking the developers whether they had noted any bias in the report on their program or in the reports on the other eight programs. No one reported any bias in any of the reports. Also, all Iowa subjects who reviewed programs they were already familiar with indicated that the IU had given a fair treatment of those programs.

e. *Timeliness of information:* The information in the unit must be up-to-date. The time span between collection of information and its use must not sufficiently diminish the value of the information. This will be measured by the judgment of staff.

The developers were asked to send all updating information about their programs by August 15, 1970. This information was added to the program reports from then until October 30. In addition, the developers were called in the latter part of September in order to ascertain whether there were any further developments which should be reported on. As the unit is expected to be available to teachers by January 1, 1971, it was agreed that this objective had been met.

f. *Flexibility:* Because the IU will have multiple users and these users will have different patterns for reviewing the IU, it is important that the IU format be flexible.

Users noted throughout the tests that they liked the flexible format of the field test versions of the IU (background information, instructions, and summaries of the programs were printed in one booklet; the nine reports comprised separate booklets). Cross-tabulations of background and demographic variables with criterion variables indicated no significant differences across different user groups and situations.

g. *Relevance:* Those areas of highest priority or relevance should be treated first. Measurement should be achieved by the judgment of consultants, users, and staff who compare the IU's priorities against state and local priorities.

All groups agreed that the focus of this IU on well-developed American government programs was justified. American government is the one social studies subject which must be taught in every state, usually by law. This objective, therefore, was achieved.

h. *Uniqueness:* The IU must meet its objectives as well as or better than any similar secondary sources of information about American government programs. Measurement of this objective must be largely a matter of expert judgment and user opinion.

There is no comparable secondary source devoted to description of programs suitable for American government courses. The sources of general information about social studies programs, which could be considered comparable, are: (a) publishers' brochures and pamphlets describing student and teacher materials; (b) the analysis of programs done by the Social Science Education Consortium in Boulder; (c) the April, 1970, issue of Social Education, which contained brief analyses of new social studies projects;[12] (d) the Marin Social Studies Project; (e) workshops and conferences about the new programs; (f) presentations by publishers' representatives; (g) publications of the various social studies councils; (h) the ERIC Clearinghouse of Social Science Education; and (i) the EPDA Civics Dissemination Institutes conducted by Indiana University.

All of these sources were judged to be somewhat less effective than the IU for one or more of the following reasons:

1. Information overload (e, h)

2. Inaccessability to users (d, e, i, possibly h)

3. Incomplete information on the programs suitable for American government classes (a, b, c, d, e, f, h, i)

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[12]The authors' evaluative comments are being incorporated into the IU Reports.

4. Incomparable treatment of all programs (a, e, f, i)

5. Not teacher oriented (h)

6. Difficult to use, e.g., restricted access, not compact (d, e, h, i)

7. Costliness (e)

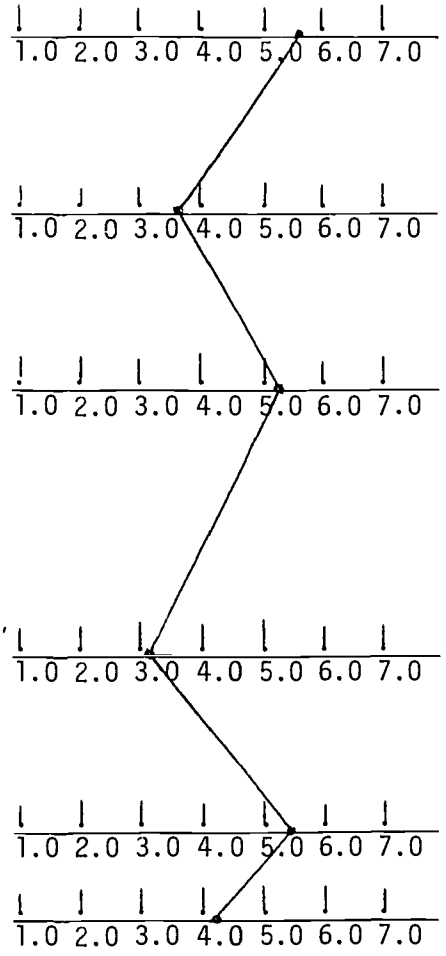
i. *Cost-effectiveness:* After using the IU, subjects will respond to cost and reward scales; the average values of reward and cost will be such that reward/cost is greater than one.

Seven-point scales were used for subjects to estimate whether the effort, time, and expense of using the IU were acceptable or unreasonable, and whether the help, personal benefit, and enjoyment from using the Unit were superlative or minimal. Table 11 illustrates average scores on each scale (see next page). The average of the last three scores was divided by the average of the three cost scores to compute reward/cost. Tested with OFT-Iowa subjects, the average reward value was 5.61 and the average cost value was 3.62; the obtained quotient was 1.55. The IU was rated highest on the reward factor of "helpfulness," and lowest on "personally beneficial;" the most extreme cost factor was financial cost and the least, for time cost.

Other Relevant Evaluation Information: In addition to the other evidence presented, the following pieces of information seem relevant to the evaluation of the American Government IU:

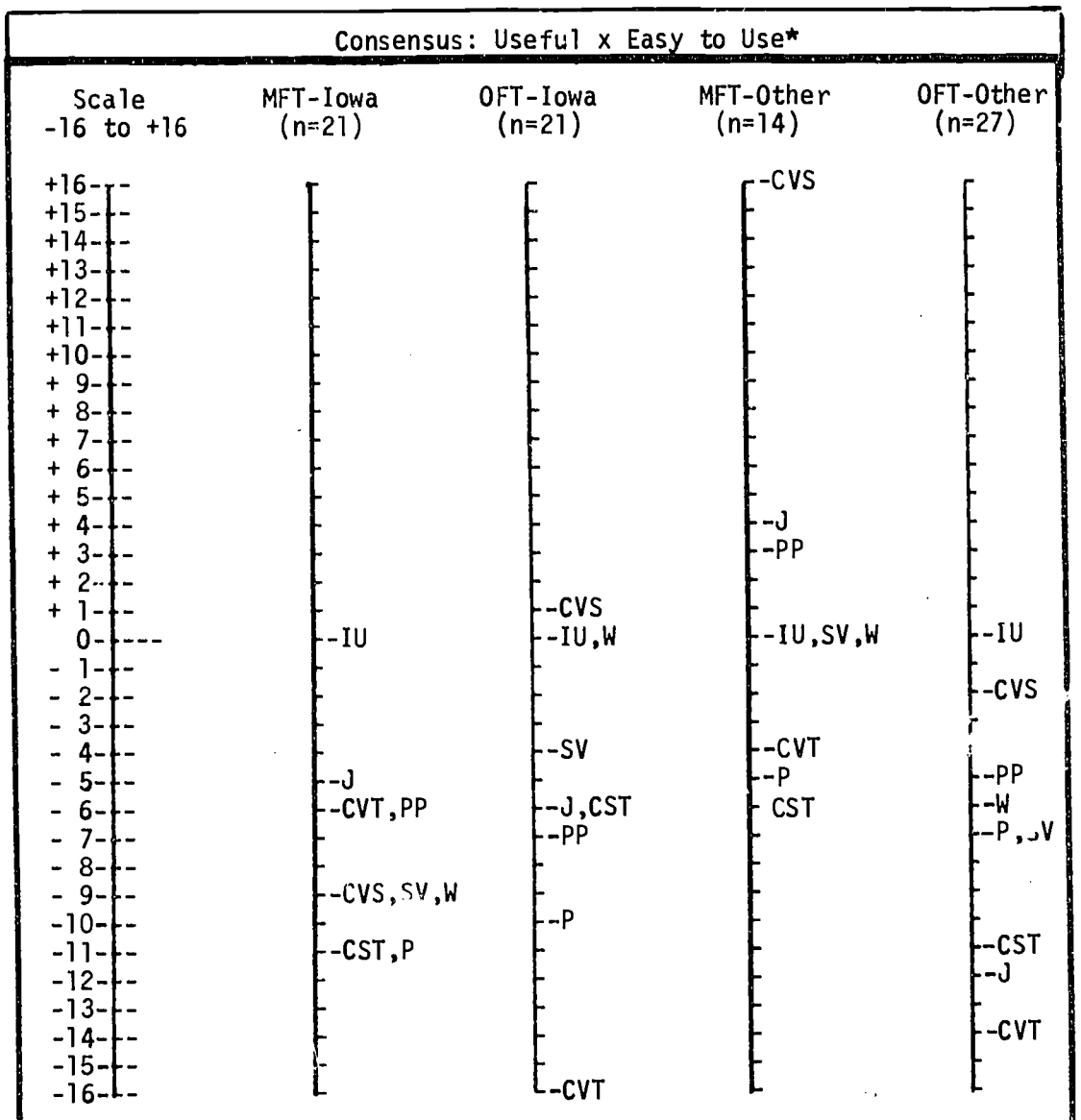
a. MFT and OFT results were compared directly to see if different results were produced by the two types of testing conditions. On two measures, knowledge and evaluation, MFT-Iowa schools performed above the matched OFT-Iowa schools. The factor which may have made the difference on the evaluation objective has already been discussed, i.e. that OFT subjects did not use the Screening Aid. For knowledge scores, there are two plausible explanations. First, MFT subjects had both Before and After tests and may have been demonstrating, in part, a testing effect. Second, MFT subjects completed After tests immediately after using the materials while for OFT subjects there was a delay usually of several days or weeks before follow-up testing could occur. Scores for OFT subjects may be considered to represent longer-term recall of information about programs, and these scores are predictably lower. Thus, MFT conditions favor higher knowledge scores and evaluation scores; however, the knowledge difference is very likely an artifact of testing while the evaluation difference represents a very real necessity for improving the attractiveness of what appears an important component, the Screening Aid.

Average Ratings on Six Cost and Reward Items (OFT-Iowa)



b. The data on "source preference" can be analyzed to compute a "consensus" score reflecting the degree of agreement among respondents regarding sources they would prefer to the IU. On the basis of the number of respondents who regard a source as either better than or not as good as the IU in regard to its usefulness and its "ease of use" for curriculum decision-making, we can compute an algebraic score for a source which more precisely locates it in relation to the IU. From the individual ratings for a subject, we can tell which of the sources was more valuable to him than the IU. The "score" for a source is computed by assigning a "-1" to a source if it is rated lower than the IU, a "+1" to a source if it is rated higher than the IU, and a "0" to a source if it is rated the same as the IU. The sum of scores for each source (over the total respondents) is a positive or negative value, depending on whether more respondents like it better or not as well as the IU. Figure 1 presents the results of such analysis on the field test data. As can be seen, over three of the four samples, the IU is more valued than all secondary and most primary sources.

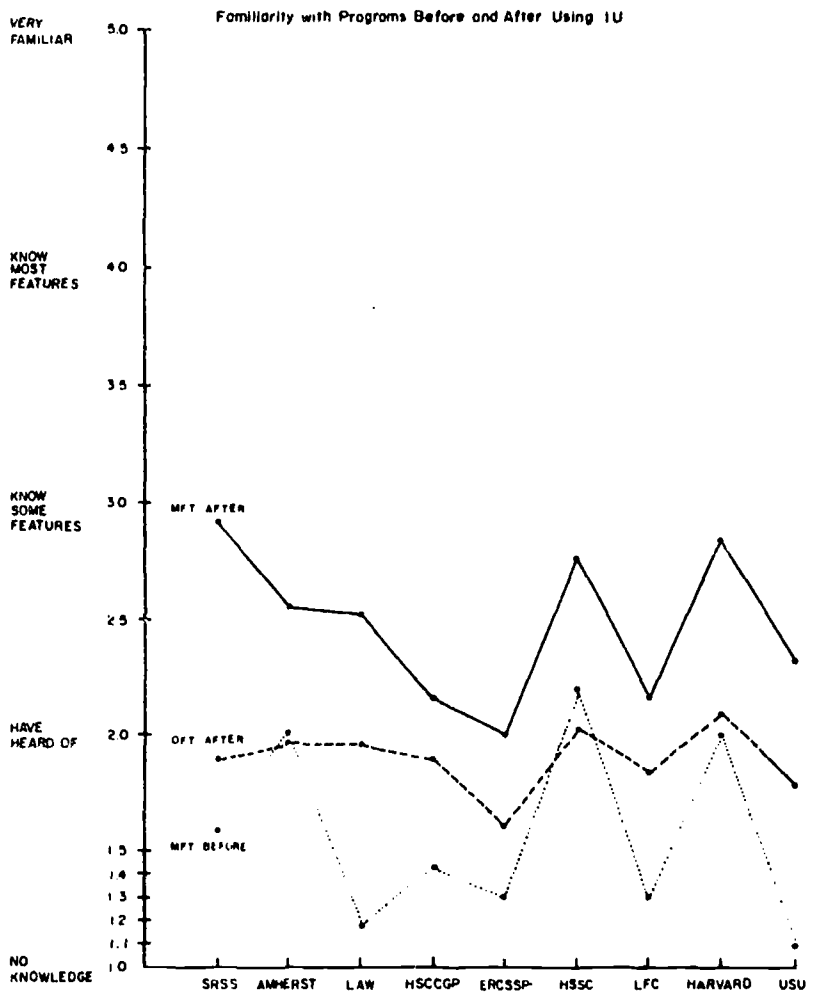
FIGURE 1



* Source abbreviations are: Information Unit, IU; Journals, J; Conventions, CVT; Pilot Projects, PP; Conversations, CVS; Site Visits, SV; Workshops, W; Consultants, CST; Publishers, P.

c. When asked to indicate their familiarity with all IU programs after using the Unit, subjects indicated slightly increased familiarity as compared to scores indicated before using the Unit. There were Before scores for MFT subjects and After scores for all subjects. Average "familiarity scores over each Iowa sample are graphed in Figure 2.

FIGURE 2



As can be seen, while the After scores are higher, they are still very low. This was expected since all subjects were included in the familiarity scores for all programs, even though many had not read the relevant program Reports. The extent to which non-readers depressed the scores became evident when further analysis revealed

that where subjects read all or part of the Report for a program perceived familiarity was generally high. Figure 3 is a graph depicting results where subjects had read or had not read program Reports.

FIGURE 3