Eight documents of representative types and three journal articles are included in this self-instructional training workbook for abstractor/indexers. Introductory materials provide an overview of informative and indicative abstracting styles and the principles of indexing utilized by the Educational Resources Information Center (ERIC). Detailed step-by-step instructions are given on examining documents, abstracting, and indexing. The first two documents, a state-of-the-art review and an opinion paper, provide practice in the informative abstracting style. A program development guide, a curriculum guide with instructional materials, and a collection of essays represent indicative exercises. A research report deals with the mixed abstract mode (i.e., informative/indicative). A second research report and a document of composite focus provide experience with author abstracts. Journal article exercises emphasize the synthesis of extensive information. Each exercise includes an analysis of requirements, practical strategies, and alternative approaches to handling the document. Suggestions to supervisors for using the "Workbook," sample worksheets, a list of "do's" and "don't's," and a list of verbs are also provided. The workbook is intended for use along with the "ERIC Processing Manual," the "Thesaurus of ERIC Descriptors," and the "Identifier Authority List." (EB)
Compiled and Written by:

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Betty Rose Rios (ERIC/CRESS)

Under the auspices of the

ERIC Steering Committee for Technical Operations

Draft Edition: June 1978
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PREFACE TO THE 1981 REVISED EDITION

The June 1978 draft ERIC Abstractor/Indexer Workbook received a favorable reaction from technical people at the ERIC Clearinghouses. As a result, time was set aside at the Abstracting and Indexing Trainers' Workshop (Cazenovia, New York, 28 August - 1 September 1978) for group discussion of the Workbook. Many valuable suggestions for further improvement resulted from this session. As supervisors accumulated more experience in actually using the Workbook for training purposes, additional responses were received.

This 1981 revised edition represents a distillate of all comments received to date. The original work has been tightened, additional appendix materials have been included, and there have been some changes in order of presentation.

Revision of the Workbook also becomes necessary periodically in order to accommodate ERIC Processing Manual changes. For example, the 1981 edition of Section VI, "Abstracting/Annotating," introduced for the first time the mixed abstract mode—informative/indicative. As a result, under the auspices of the Steering Committee, an additional section (see Document No. 7) was added to the Workbook that provides practice in dealing with this mixed mode. It must be emphasized that the mixed mode is required only for those relatively few documents which cannot be treated adequately with either an informative or an indicative abstract. Abstractors should become thoroughly proficient in writing informative and indicative abstracts before the mixed mode is attempted.

Central ERIC has provided funds for limited distribution of this revised edition. We appreciate their continued support and encouragement, which has been so helpful in the fulfillment of this project. Similarly, this Workbook would never have been possible without contributions from technical people at all of the ERIC Clearinghouses. We are deeply appreciative of their efforts and feel that the Workbook is a tribute to their concern, motivation, and dedication.

Marilyn Scutt Shorr, Chair
ERIC Steering Committee
for Technical Operations
September 1981
PREFACE TO THE 1978 DRAFT EDITION

Consideration of the need for training materials of various types was one of the original charges to the ERIC Steering Committee for Technical Operations. At its first meeting in January 1977, the Committee outlined seven types of training aids directed to the various functional areas. The first product prepared under Committee sponsorship was the ERIC Staff Handbook, a general introduction to the system and its functions for all new system employees.

This workbook represents the second Committee product. It is intended to supplement the ERIC Processing Manual by providing a set of exercises illustrating and reinforcing the basic principles of ERIC indexing and abstracting. It will help to promote a system-wide consistency by providing all new trainees with a common set of initial experiences.

All of the ERIC Clearinghouses participated in the development of the workbook. They supplied sample documents, examples of indexing and abstracting for the documents, and insights into abstracting, indexing, and training functions. This draft, prepared by Barbara Booth, Sydney Meredith, and Betty Rose Rios, represents in large measure the collective wisdom and practical advice of all ERIC technical supervisors. The assistance of Central ERIC in arranging for the compilation of the draft by releasing funds to the Clearinghouse on Social Studies/Social Science Education, and the assistance of support personnel at ERIC/CRESS, are most appreciated.

John Waters, Chair
ERIC Steering Committee
for Technical Operations
June 1978
SUGGESTED ABSTRACTS AND INDEX TERMS FOR THIS WORKBOOK

Informative Abstract

ABST: Representative documents and journal articles and information on training problems and practices were solicited from the ERIC Clearinghouses as potential material for development of a self-instructional training workbook for abstractor/indexers. Eight documents of contrasting types and three articles were selected by a small working group of three technical supervisors at a regional meeting of technical staff. Each item was sent to four Clearinghouses for sample indexing and abstracting by experienced practitioners. Perceptions of the indexing/abstracting process and of major decision points were elicited along with the samples. Responses (100%) were utilized to develop a set of training materials and exercises based on existing guidelines. The materials introduced basic processes, provided step-by-step instructions for abstracting and indexing, and analyzed requirements and alternatives for each document and article. Practical strategies were emphasized, but the exercises reflected the individual approaches of the three contributing authors. The 'Workbook' was sent in draft form to ERIC system components. Suggestions for improvement were invited. (BB)

Indicative Abstract

ABST: Eight documents of representative types and three journal articles are included in this self-instructional training workbook for abstractor/indexers. Introductory materials provide an overview of informative and indicative abstracting styles and the principles of indexing utilized by the Educational Resources Information Center (ERIC). Detailed step-by-step instructions are given on examining documents, abstracting, and indexing. The first two documents, a state-of-the-art review and an opinion paper, provide practice in the informative abstracting style. A program development guide, a curriculum guide with instructional materials, and a collection of essays represent indicative exercises. A research report deals with the mixed abstract mode (i.e., informative/indicative). A second research report and a document of composite focus provide experience with author abstracts. Journal article exercises emphasize the synthesis of extensive information. Each exercise includes an analysis of requirements, practical strategies, and alternative approaches to handling the document. Suggestions to supervisors for using the "Workbook," sample worksheets, a list of "do's" and "don't's," and a list of verbs are also provided. The workbook is intended for use along with the "ERIC Processing Manual," the "Thesaurus of ERIC Descriptors," and the "Identifier Authority List." (BB)

Index Terms

DESC: *Abstracting; *Indexing; Autoinstructional Aids; Subject Index Terms; Workbooks; Job Training; Teacher Developed Materials; Task Analysis; Coordinate Indexes; Technical Writing

IDEN: *ERIC

Pub Type Code

PUBTYPE: 051 Instructional Materials (For Learner)
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TO THE TRAINEE

This Workbook is a product of cooperative effort by experienced abstractor/indexers from all of the ERIC Clearinghouses. They supplied the documents and provided sample abstracts and indexing for them. Each document, included here was abstracted and indexed by at least four abstractors and in some cases as many as eight. While many of the comments made throughout the Workbook are our own, what we say about the abstracting and indexing of these documents generally reflects a consensus of all who worked on them.

You should also know that this was a volunteer project. The basic plan for the Workbook was developed by the ERIC Steering Committee for Technical Operations soon after it was formed. The Steering Committee, a group of senior technical personnel appointed from among all ERIC system components, asked the three of us to be responsible for producing the Workbook. We received enthusiastic cooperation from everyone because such a training device has been needed for so long.

This Workbook will not teach you all you will need to know. It does not contain examples of all the kinds of documents you will encounter, nor all the difficult problems you will struggle with in abstracting and indexing. The unique subject scope of your Clearinghouse, its special types of materials, and particular practices are also beyond the province of the Workbook. All Clearinghouse technical supervisors agree that it takes six months to adequately train an abstractor/indexer. Consider yourself a trainee for at least that long.

We are not experts or authorities of any kind, just practitioners with a few more years of experience than we sometimes care to think about. We learned the hard way, by reading the ERIC Processing Manual and then just sort of starting out (one of us started out before there even was a Manual). So nothing said herein is gospel, except where it is derived directly from the Manual. At the very least, the Workbook will get you going in the right direction, with a surer grasp of the principles than we had in our first months with ERIC.

Barbara Booth

Sydney Meredith
Assistant Director, ERIC/CHESS

Betty Rose Rios
Assistant Director, ERIC/CRESS
Introduction to Abstracting

So-----YOU'RE going to be an ERIC abstractor.

What kind of change is this going to make in your life? Well, we can't guarantee sweetness and light, but we are going to try to help you understand the task before you and the reasons why your abstracting mastery is so important. In your moments of gloom and despair we want you to realize that well-intentioned, already-out-through-the-fire persons from all the Clearinghouses helped in the development of this Workbook. In your moments of triumph and euphoria, please share your insights with us; we, too, are still learning.

Perhaps someone has already plopped a weighty mass in front of you and said, "This is the ERIC Process Manual." If so, remain calm and turn to Section 6, "Abstracting/Annotating." If you haven't seen the Manual yet, make noises to do so. Section 6 is THE WORD. This Workbook is not intended to replace the Manual, but will, it is hoped, illuminate and expand the basic guidelines based on our accumulated experience and mutual wisdom.
**Is there an ABSTRACTING MYSTIQUE?**

What, indeed, is so special about abstracts? What do we need them for, anyway?

Unless you've had your head in the sand, you have to be aware of the information explosion that every day threatens to bury each of us under tons of paper, film, tape, etc. If one wishes to remain in any kind of touch with an interest area, some kind of device is needed to cut down the time for winnowing out momentarily irrelevant information. An abstract is one such device and ERIC is the vehicle in the education interest area.

**What IS an abstract?**

There are dictionary definitions, of course, but essentially an abstract signifies an abbreviated, accurate representation of a document without added interpretation or criticism and without distinction as to who wrote the abstract.

While some writers suggest that the function of an abstract is to obviate the necessity of reading the original document at all, a far greater number feel that the role of an abstract is to assist the reader in determining if the original document should be read in its entirety.

In short, you are an abstractor will be taking the work of others, finding the essence of that work, and representing it to the world at large (that is not an excessive claim; ask your user services person for the Directory of ERIC Microfiche Collections).
Does it make you feel good to think you are in the forefront of a reaction to the knowledge explosion? Before your head gets too swelled, you might consider that a device similar to an abstract was first used on some of the clay envelopes enclosing Mesopotamian cuneiform documents of the early second millennium B.C. Abstract journals like Resources in Education (RIE) aren't new either; the Journal des Scavans began publication in Paris in 1665.

WHAT do we have so far?

We have you, the aspiring abstractor. We have the concept of an abstract as a short device for representing a larger work to the public. We have Section 6 of the Manual and we have this Workbook. Soon you will have a document that has undergone your Clearinghouse's selection procedures, been certified fit, and placed in your hands. Has it begun to dawn that you have a terrific responsibility—both to the document's author and to the ERIC user—to present that document as fairly and clearly as possible?

Do ERIC abstracts come in ALL sizes and shapes?

No, our abstracts pretty much come in One Size Fits All; you will note from Section 6 that we should not exceed 200 words per abstract.

How, then, can we provide a variety of abstract styles to fit the wide range of documents represented in the ERIC system? Although we tend to think of ERIC as alpha and omega, many other abstracting services have preceded us and some have the effrontery to coexist with us. Almost without exception, such services provide two major kinds of abstracts, informative and indicative.
A quick way to distinguish informative from indicative is to think of informative as being author-centered and indicative as being document-centered. Let's take informative first.

An informative abstract addresses the essential ideas of a document as the author would condense them. You must glean those concepts most unique in the document and set them down as succinctly as possible. You do not editorialize, you do not intrude; you simply put down the author's main thoughts, findings, etc., so that the reader perceives the author's intent. In general, experts in the field of abstracting perceive the informative style as being more useful than the indicative style. A glance at the summary of significant rules for Section 6 will provide you with ERIC's stand: abstracts should be of the informative style whenever possible.

But, life is not so simple. In addition to documents having a more precise focus, you must also abstract curriculum guides and bibliographies and conference reports and all sorts of materials that go off in all directions. Therefore, we have the alternate style, the indicative abstract. Whereas the informative style serves as a condensed version of the document, the indicative style is a guide to the contents of the document. The abstract becomes very much like a narrative table of contents. The style you will choose is pretty much dictated by the document you will have in your hand.

In order to more graphically illustrate the point, we have taken the suggested usages of informative and indicative abstracts from Section 6 and listed them below:

Occasionally, a combination of the two styles may be used. "Mixed-mode" or "Informative/Indicative" abstracting is discussed in Section 6 of the ERIC Processing Manual. Document No. 7 of this Workbook is an example of appropriate usage of the mixed mode. As a trainee, you should not attempt to do a mixed-mode abstract until you have mastered the other two styles.
INFORMATIVE | INDICATIVE
--- | ---
Reports (Research & Technical) | Curriculum Guides/Teacher Guides
Speeches/Presentations | Program Descriptions/Administrative Reports
Dissertations | Textbook/Instructional Materials

|  | Bibliographies/Directories
|  | Multiple-Author Works
Tests/Measurement Materials |

So, what do YOU have now that you didn't have before?

You now know that ERIC principally uses two kinds of abstracts, the informative which succinctly condenses the contents, and the indicative which equally succinctly describes the contents of the document. You also know that one doesn't willy-nilly choose a style and get right to abstracting. Rather, ERIC has established style preferences according to document type and you will be expected to follow those preferences.

Before we plunge into indexing, there are a few niceties of writing style that we need to review (or introduce, as the case may be).

1. Topic sentences. Topic sentences are v-e-r-y important to ERIC because we are working in such a small space (and also because good topic sentences are, well, marks of good writing). The first, or topic, sentence of the abstract should be as complete a statement as possible of the territory covered by the document. Now that doesn't mean you should have a 200-word abstract consisting...
of only one or two long sentences. What does mean is that the use of clear, concise words will provide a sentence containing enough information to allow the reader to decide if (s)he wishes to proceed further.

It is not considered good form to begin your topic sentence with "This document . . ." Nor is it good form to repeat the title or a major share of the information cataloged elsewhere on the resume. A good test of your topic sentence is to pretend that all the rest of your abstract has been eaten away by a perverse termite. Would your topic sentence, standing bravely alone, adequately represent the impetus which caused the document to be written?

2. High information density. Since we have only 200 words, each of them must be made to carry as much information as possible. Do not ramble. Without bringing in your own views, choose words that are clear and concise to build phrases and clauses that are succinct and packed with information gleaned from the document. This isn't the most challenging task in the world with some bibliographies, for example, but just wait until you get a report with numerous hypotheses, various variables, and a confounding number of conclusions and recommendations. Just try abstracting that in 200 information-packed words and you will begin to get some respect for the requirement. You must remember that everything we do is for
the prospective reader of our abstracts. If we haven't adequately done our job, (s)he may miss the document making the very point his or her professional life depends upon.

3. Voice. While we could possibly use an ERIC quartet of concert caliber, what we are discussing here is not whether you are a bass, tenor, soprano, or alto. Voice (in a grammatical sense) means those cues of form designed to let the hearer or reader know who is doing something or who something is being done to. Active voice emphasizes the doer in a sentence, while passive voice emphasizes the receiver of the action.

- Active voice: The frustrated indexer shredded the Thesaurus.
- Passive voice: The Thesaurus was shredded by the frustrated indexer.

The Manual reserves the passive voice for indicative abstracts; such words as "are included," "are discussed," "is presented," and "are reviewed" would appear only in an indicative abstract. The active voice should be used in an informative abstract. Not only does the active voice allow for more direct expression, it does so in less space (see the frustrated indexer above) than is required by the passive voice.

4. Tense. These are indeed stressful times, but our concern here is with that grammatical property which indicates the time of action expressed by a verb. We generally use the present tense in an
indicative abstract because we are here and now describing the contents of a document. On the other hand, an informative abstract should reflect the tense use of the document it condenses. Since an author sometimes passes back and forth through time in a given work, an informative abstract is often written in the past tense because it is a condensation of work already accomplished. The important thing is to provide consistency for the reader. Do not change tenses within an abstract; changes confuse the reader and do not contribute to that clarity for which we strive.

Introduction to Indexing

Indexing is also your responsibility. This is the means by which ERIC users will locate the document citation, and with it the wonderful abstract you have written. If those who need the information contained in a document do not retrieve it, all is lost.

You may find that indexing is more difficult than abstracting, at least at first, and that it takes longer for you to feel comfortable and competent in indexing than in abstracting. After all, you have been writing sentences and paragraphs of one sort or another most of your life, while indexing is new and unfamiliar. But be not afraid. Our basic guidelines in this area come from Section 7 of the Manual, "Indexing."

The purpose of indexing is to make a document or article retrievable according to its subject matter. The subjects addressed by documents and
articles are invariably made up of a number of concepts and the relationships among them. That is, a document is not about RABBITS but about "How to Use Rabbits to Teach Multiplication to Disadvantaged Minority Students in the Inner-City Elementary School." ERIC's system of indexing concentrates on enumerating the significant concepts in a document and then weighting them as major or minor concepts on the basis of their importance and on searcher needs. With the exception of a number of special "linking" descriptors (e.g., Parent Child Relationship, School Community Relationship), our ability to represent relationships among concepts in a topic is somewhat limited.

Words and Concepts

Indexing would be easy if every concept were represented by a unique word or phrase, its own label or "name." Such is not the nature of the English language. English is full of synonyms, of clusters of words differentiated only by the finest shades of meaning, and of words with more than one meaning. An idea or concept can be expressed in many different ways. This is the essential problem facing indexers and searchers.

The effectiveness of an indexing system is roughly proportionate to its ability to bring together in one place all the instances of the same concept, no matter how variously expressed by authors. In setting up an indexing system, choices must be made among synonyms and one word or phrase selected to represent each concept. Then everyone, indexers and searchers alike, must be informed of the choices that have been made. This is the function of the Thesaurus of ERIC Descriptors.
Descriptors, Identifiers, and Indexing

The Thesaurus controls the words and phrases used in ERIC indexing by specifying those that are approved to represent concepts (descriptors) and those synonyms to approved descriptors, e.g., Bunnies USE Rabbits, and relationships among descriptors are indicated through displays of their hierarchical and other conceptual associations.

Certain categories of concepts are not included in the Thesaurus. Proper nouns, such as names of persons, places, and things, are so numerous that their inclusion would make the Thesaurus unwieldy and its maintenance impossible. These categories of concepts are called "identifiers." Preferred forms for identifiers are listed separately in the Identifier Authority List.*

Are you with us so far? If you are, you know that the Thesaurus and the Identifier Authority List serve to take care of the problem of the myriad ways in which authors may use, combine, and interpret words to express ideas. Right? Wrong. The Thesaurus cannot possibly anticipate every expression an author may potentially use. Nor can it react instantaneously to social change, technological advances, passing fads, yesterday's news, or any other influence on the language, much less compensate for the idiosyncrasies of the human mind. That's where you come into this.

The first step in indexing, and your most important function as an Indexer, is to translate the author's words into underlying concepts. We wish we could tell you how to do this; the best we have to offer is a few tips at the end of this section. But you'll learn—you'll develop patterns

*See ERIC Processing Manual, Section 8: Vocabulary Development and Maintenance (Part 2) -- Identifiers.
of thinking and of absorbing what you read as you gain experience. The essential thing is to concentrate on what the author means, not on the way (s)he expresses it, and to crystallize the concepts in your mind.

Of course, it is helpful if the concepts have some precision to begin with. We regret to inform you that, for the most part, the concepts you will be indexing will not have external referents. If we were dealing primarily with observable entities and phenomena, our concepts would have well-understood meanings. We could have confidence that authors and searchers would use them with some consistency. But the educational disciplines deal with behavior, feelings, values and other abstractions. Concepts are often amorphous, eluding precise definition. Education has its own technical jargon, but a high percentage of its vocabulary is present in everyday language (unlike a scientific vocabulary, which may be almost entirely technical). Even the concepts most central to education may cause problems, e.g.,

I am teaching the child...
I am training the child...
I am instructing the child...

What distinctions are present here? From the point of view of ordinary usage? From the point of view of the professional literature? Skill, ability, talent, competence, proficiency...one concept blurs into another. You will frequently find that educational terms used interchangeably in common practice are used interchangeably in documents, too, despite whatever clinical distinctions may be found in educational dictionaries.
One other word about conceptual difficulties seems necessary here. ERIC did not have the luxury enjoyed by many other indexing systems of an initial period of thesaurus-building, approached theoretically, before actual indexing began. The Thesaurus was built concurrently with the processing of documents. It is no wonder that many near-synonyms and a few true synonyms crept into it. It reflected a true picture of educational concepts and terminology; where they were imprecise or unclear, it was imprecise or unclear. One of the prime goals of the 1977-80 ERIC Vocabulary Improvement Project* was to distinguish closely-related concepts and to clarify their meaning and intended use by providing scope notes (SNs) throughout the Thesaurus. Near-synonyms that could be considered synonymous from the point of view of retrieval were merged and obsolete terminology was updated. Many of these problems appear to be resolved in the completely revised 1980 Thesaurus.

The indexing task then, is basically one of moving from the word or words used by an author to the concept those words represent, and then of locating in the Thesaurus the approved descriptor for representing that concept.

Author language  - [Concept]  - Descriptor

The onus is on you to make this transition accurately.

By now you may feel that only a clairvoyant could index with any precision. Well, nobody ever said this would be easy. But as you gain experience with the Thesaurus and the literature of your Clearinghouse scope

*See ERIC Processing Manual, Section 8: Vocabulary Development and Maintenance (Part I) -- Descriptors. Item C.1.h of this section gives background on the Vocabulary Improvement Project.
area, it will get easier and easier. Six months from now you'll wonder what all the fuss was about. Even then, even when you are an experienced indexer, you won't always find an on-target descriptor for every concept you want to express. The day will come when you will be handed that document on "How to Get Rid of Excess Rabbits in the Inner-City Elementary Mathematics Classroom" and you'll find yourself stuck with WASTE DISPOSAL as the only available descriptor. (Suggest the need for a new descriptor to your supervisor. Perhaps RABBIT REMOVAL would do. Yes, the Thesaurus lives and grows: New descriptors are proposed by the Clearinghouses and are added to the Thesaurus all the time.)

**Indexable Concepts**

How can you tell which concepts should be indexed and which should not be indexed? In responding to the question, "What is the most difficult problem in training?", all the Clearinghouse technical supervisors agreed that teaching a new indexer/abstractor to distinguish indexable and non-indexable concepts was the most difficult part of training. Even the most narrowly conceived document or article will contain many, many concepts. In the example, "Using Rabbits to Teach Multiplication to Disadvantaged Minority Students in the Inner-City Elementary School," each substantive word represents a component concept of the topic. Within the body of the document, of course, the author would discuss specific aspects of the topic—how to begin (with two rabbits), teaching techniques, lesson plans, rabbit obstetrics, etc.—each of which would introduce many additional
concepts. Some ideas would be discussed at length, others would merely be mentioned in passing or briefly treated in a paragraph or two.

The Manual tells us to index the document in hand, not the implications, applications, potential uses or future possibilities of the document or topic. It is also easy to slide into the habit of indexing according to who we think might look for it (mathematics teachers) and how we think they might look for it (animals).

A primary tenet of ERIC indexing is to index at the level of specificity of the document. It is the specific concept represented in the document that is indexable. Broader concepts representing the class of which the specific concept is a member are not indexable concepts. RABBITS not ANIMALS. MULTIPLICATION not MATHEMATICS. This is essential! No matter how strongly you feel that persons interested in animals in the classroom might want this document, don't index up to the broader level. Remind yourself that there are plenty of documents dealing with the broader topic; the narrower document won't add much to the user's search results, it will just seem out of place next to the others.

Specificity in indexing is achieved by selecting the descriptor most closely matching the scope of the concept. Compound concepts, those composed of two or more component concepts, are narrower and more specific than single concepts. In our example, "disadvantaged minority students" is a compound concept with three components. It should be clear that "minority students" is a narrower concept than "students," and that "disadvantaged minority students" is narrower than "minority students." Descriptors
representing compound concepts are called precoordinated descriptors. Section 7 of the Manual contains a good discussion of precoordinated descriptors. Suffice it here to say that you must conscientiously follow this rule: **Always select a precoordinated descriptor, when available, rather than descriptors representing the component concepts.** The latter may be legitimately indexed only if a precoordinated descriptor does not appear in the Thesaurus.

There are a few situations in which it is permissible to index at two levels of specificity. The first is when a document deals generally, but **directly**, with a class concept (fruit) and **also** treats in depth the individual members of the class (bananas, peaches, cherries, plums). The second is when a document deals specifically with the individual members of a class but there are too many to be indexed individually, or when specific descriptors are available for some but not all of the members.

The second criterion of an indexable concept, once level of specificity is satisfied, is whether the concept is justified for indexing in and of itself. The Manual suggests a test of each potential concept: Would a searcher after a particular concept be satisfied to retrieve this document? This means that each concept considered for indexing (as distinguished from descriptors) should be evaluated as it stands alone.

Indexing of peripheral issues and minor aspects of documents tends to occur when concepts are considered within the context of the overall topic addressed by a document. If concepts are tested individually these errors can be avoided. Our rabbits, for instance, are located in an inner-city school. But would someone interested in inner-city schools find value in this document? Not likely.
Difficulty in identifying indexable concepts arises because ERIC indexing is to be exhaustive. The Manual provides an excellent outline of the types of concepts that should be considered in the indexing of each document—population concepts*, curriculum concepts, materials concepts, etc. But exhaustive indexing does not mean indexing all the concepts in a document. The crucial qualification is that significant concepts should be indexed exhaustively. How can you tell if a concept is significant? Significance lies in the amount of information backing up the concept. A concept is like a label on a drawer—it's what's inside that's important. We are indexing concepts, but it is the information about that concept that we are delivering to the user. It often happens that a concept is very prominent in a document, yet hardly anything is really said about it. Mere mention of a concept, even on every page of a document, does not make it significant.

**Weighting**

Once the indexable concepts in a document or article have been identified and the most specific descriptors have been located for each, they must be weighted as major or minor index terms. Major descriptors are indicated by an asterisk (*). Our rules allow up to five major descriptors and two major identifiers, or six major descriptors and one major identifier. One major descriptor is a minimum requirement.

Major index terms serve two purposes: they signal the primary emphasis of the document or article, and they determine the access points that will be provided the user in the printed subject indexes to Resources in Education (RIE) and Current Index to Journals in Education (CIJE). Decisions in weighting must consider both functions; difficulties arise when they conflict.

*Population concepts include the mandatory educational level terms, a set of 14 broad descriptors that must be considered in the indexing of all ERIC documents and journal articles. Section 7 of the ERIC Processing Manual lists these mandatory levelers and provides many examples of their use. The indexing of every document/article in this Workbook considers the applicability of one or more of these mandatory terms.*
A case in point would be a study comparing Method A and Method B. According to the emphases in the document, the indexer might assign as major terms the appropriate descriptors or identifiers for the two methods and the linking descriptor COMPARATIVE ANALYSIS. But would a RIE user looking for Method A think to approach this topic by looking up COMPARATIVE ANALYSIS? Never. The user would search under the most substantive concepts, the methods concepts. Similarly, the user of the printed indexes would never search under a "document type" descriptor like TABLES (DATA), which may be used to describe documents composed primarily of statistical tables. Document type descriptors are made major only if they describe the subject of a document; they are made minor if they describe the document itself.*

Keep the manual searcher in mind when assigning weights. Consider whether your major terms are providing the most useful access points for the document. This follows, really, from the basic purpose of indexing.

Tips on Approaching the Thesaurus

Until you become familiar with the Thesaurus and the descriptors in your Clearinghouse scope area, a good deal of groping around is inevitable. Don't let yourself get too frustrated but don't give up too easily either. It takes lots of practice to get to know the Thesaurus well, so take your time as you are learning and pay attention to surrounding descriptors as well as the ones you actually use. When you cannot easily locate an appropriate descriptor, the best advice we can give you is to:

*Access to "document type" is provided in the Publication Type Index to RIE. Entries in this index are generated by "pubtype codes," usually assigned to the documents as they are indexed. Section 5 - Cataloging of the Processing Manual discusses the pubtype data element. Articles in CIJE are also assigned pubtype codes. Because CIJE does not currently display these codes in its indexes, CIJE pubtypes are accessible only on computer. In spite of this difference between RIE and CIJE, the weighting of document-type descriptors is handled in the same manner for both publications. The indexing of every document/article in this Workbook considers the applicability of one or more of these pubtype codes.
(1) Keep looking--

- Try component words in the Rotated Display
  (However, don't index from this display -- in other words, don't assign any descriptor to a document before first checking its meaning and use in the main Alphabetical Display, the only Thesaurus display with scope notes and complete cross-references);

- Think up as many synonyms and near-synonyms as you can and try those approaches in the body of the Thesaurus and the Rotated Display;

- Start at a broader level, maybe much broader, and try to work down to the specific level.

(2) Ask someone who knows--your supervisor or another experienced staff member. They may not be able to give you an immediate answer but they can help you extrapolate synonyms and select the best alternative(s).

Above all, remember that the Thesaurus is an ever-changing tool. Do not allow yourself to index from memory. Not only may your favorite Thesaurus terms change while you're not looking, but you may be in such a rut that the conceptual vocabulary has outgrown you and made your indexing work questionable. Always make sure that your Thesaurus Working Copy is current. Your Clearinghouse Vocabulary Coordinator should see that you receive the Thesaurus updates distributed periodically (usually monthly) by the ERIC Facility. Even before these updates are distributed, however, the monthly "Vocabulary Status Report" appearing in the ERIC Administrative Bulletin shows new descriptors and other Thesaurus changes that may be used immediately by ERIC indexers. (Never use the published version of the Thesaurus for indexing; before it leaves the presses, it's usually out of date.)
DOCUMENT NO. 1: "CAN SCHOOLS SUSPEND YOUR CHILDREN?"

Instructions

Before you actually try your hand at abstracting a document, it is important for you to practice looking at documents. Yes, there is a skill involved here. You will find that as an abstractor, your skills in skimming and in selecting what must be read and what need not be read will become finely honed. Time is of the essence in abstracting, so the first task is to begin educating a perceptive eye.

You will find the document "Can Schools Suspend Your Children?" at the end of the analysis for Document Number 1. Remove it from the notebook, follow the instructions given below, and then turn to the next page.

1. Flip through the pages quickly to obtain an overall view of the document's length and structure. Does it have discrete sections, section headings, numbering or any other structural indications? Does it have a labeled summary? Note the presence of any emphases supplied by the author through spacing, type size, underlining, italics, etc. Be aware of any assists the author gives you and learn to take advantage of them.

2. Read the topic sentence of each paragraph all the way through the document.

3. Now read the entire document, and, as you go, make a rough outline of the main points in their sequence.
Abstracting

You recall that an informative abstract provides a concise summary of the intellectual content or ideas found in the document, presented from the author's point of view. Furthermore, the Processing Manual tells us:

1. An abstractor writes an informative abstract as if he were the author presenting an objective summary of his own ideas.*

2. An informative abstract contains a statement of the author's thesis, several sentences of his development or proof, and his conclusions.

3. An abstract should be "weighted" in the same proportions and with the same emphases as the document. Omitting important ideas, or failing to distinguish between major and minor information, will misrepresent the document to the user...

Stylistic considerations are important too. All the basic rules of good writing apply to abstracting, but even more discipline and precision are required than in ordinary prose, due to the limitation on length.

4. A paragraph (abstract) should have a topic sentence, some central statement of the document's major thesis, from which the rest of the sentences can develop. A coherent paragraph contains connected sentences, each following the other in logical order.

5. Every sentence should have information density, and without being cryptic, convey a maximum amount of information in a minimum amount of words.

6. Use the active voice whenever possible in an informative abstract.

7. The tense of the document can suggest the tense of the abstract.

8. An abstractor should try to incorporate into his abstract the key words in the document.

Now you are ready to begin. First, draft a topic sentence, in the author's language, summarizing the main issue addressed in the document.

*Generic he/his pronouns are used throughout much of this Workbook. No offense is intended.
Don't write an introductory sentence leading up to the topic. Don't write "The author says that...." Go right to the heart of the matter. Crystallize in your mind the main idea contained in the document and then write a sentence presenting that main idea.

Once you have your topic sentence, use your outline to flesh out the body of the abstract. Don't worry about length yet, let the abstract develop as the author's logic dictates. It's more important now that your abstract be complete, even if that means it is too long.

Type your abstract (see sample worksheet in Appendix 6).

When your abstract is finished, test it against the rules and principles given above. Is it properly weighted? Has important information been omitted or has unimportant information been included? Does it have high information density? Have you put in as much detail as possible? On the other hand, have you repeated anything? To be general, or (even worse) to be vague, is the worst sin in abstracting. Your abstract should be:

- Specific
- Precise
- Tightly constructed

Finally, edit your abstract. Make any necessary revisions. Cut it down to no more than 16 elite lines, 18 pica. (Don't bother to count the words; your abstracts will be edited by your supervisor, at least initially, and this will invariably alter the word count.)
Document Analysis

1. Characteristics of the document type

"Can Schools Suspend Your Children?" summarizes the findings of the courts concerning the legality of school suspensions and the rights of students in such actions. On page 2, in the second paragraph, the author provides a context for the presentation of these findings by indicating that many questions have yet to be resolved. Thus the author is not reporting the last word on this issue, but only what may be stated with some certainty at a particular point in time.

Many documents summarizing what is currently known in a given area are represented in the ERIC system. These documents have no typical size, shape, or appearance—many are of the "what research says to the teacher" variety, which summarize research findings as reported in the literature. Others may be descriptions of current practices which illustrate conclusions by providing specific examples. A variety of approaches and formats are utilized. They are all recognizable as state-of-the-art documents, however, in that they reflect what is known or what is happening at a certain point of time.

2. What a practiced eye will look for in such a document

In order to present a synthesis of information, perhaps from many sources, a state-of-the-art document will usually take up various aspects of a topic in an organized, sequential manner. In a long descriptive work, the experienced abstractor will look for a statement or list at the
document's beginning of the aspects the author intends to treat, or a reiteration near the end of those that have been discussed. Because this paper is so brief, such a structural guide for the reader is not necessary. Instead, the author has highlighted the main points by underlining. Because of its brevity, this document should be read in its entirety.

3. Parts of the document on which the abstract should be based

The author has organized this document very well. The first few paragraphs provide an historical perspective, indicating that it is a change in parental reaction to suspension that has generated current legal problems. The central legal issue, the conflict of rights, is then stated. The primary intent of the document is crystallized on page 2, paragraph 2: to outline the issues that the courts have clarified. Four issues on which the courts agree are then discussed with reference to pertinent court cases. It is not clear, however, whether a fifth issue, the overuse of suspension as a discipline measure, is a conclusion of the courts or comes from the author. Because of the placement of this issue between the other court-determined issues, the abstractor should presume that this is a conclusion of the courts and not treat it any differently than the others.

On page 5, paragraph 3, the author briefly sums up the problem and the courts' findings. New matter is interjected—the question of whether suspensions are effective in preventing an increase in school violence. Finally, the author comments that school officials and parents must work together to develop mutually acceptable guidelines.
The abstract should be based on the middle part of the document.

An abstract based primarily on the last three paragraphs of the document, which may appear at first to be a usable summary, will misrepresent its basic thrust and emphases.

4. Essential features of the content

The abstract must include the statement of the central legal issue and the five underlined findings. If the introductory and concluding matter are included in the abstract, they should be weighted in proportion to their minor importance.

5. Sample abstracts *

Topic sentences for the third and fourth paragraphs of the document suggest two good ways to begin the abstract:

Sample Abstract #1

Legal issues surrounding suspensions from school arise from the conflict existing between the right of all students to obtain an education without violence, extortion, or intimidation, and the right of the individual to receive justice and "due process." Suspension raises difficult and complex legal questions, and while court decisions support conflicting points of view, a number of issues have been clarified. Court decisions in Williams v. Dade County School Board, Goss v. Lopez, and Tinker v. Des Moines Independent School District, among others, have upheld that suspensions are legal under certain conditions when proper procedures are followed. While suspensions may have been over-used as a discipline measure, particularly as regards minorities, they appear to be appropriate as a short-term emergency measure to relieve immediate school tensions. Prior to suspension, students are entitled to a fair hearing and to due process (though these have not been clearly defined), and students and parents are entitled to know school board

* Sample abstracts and annotations presented throughout this Workbook show some word splits at the end of lines. This must never be done in actual processing. The computer system automatically inserts a space after the last character in each line, so if "conflict-" ends a line and "ling" begins the next, the data will appear in the stored record as "conflict- ing".
policies and suspension procedures. To avoid financial liability, school officials should provide alternative educational opportunities for suspended students, such as home study, adult school, or evening classes.

Sample Abstract #2

Recent court decisions have made it more difficult to suspend students from school. Suspension creates a conflict of rights: on the one hand, the right of all students to obtain an education without violence, abuse, extortion or intimidation, and on the other hand, the right of the individual to receive justice and "due process." The courts have supported conflicting points of view on the issues surrounding suspension. However, the things that schools can and cannot do have been clarified in the following respects: (1) suspensions are legal under certain conditions when fair hearings, due process, and the right of appeal are allowed; (2) suspensions may have been overused in the past as a discipline measure, and blacks, Spanish, and other minorities have suffered disproportionately from this misuse; (3) suspensions appear to be appropriate as short-term emergency measures, to remove unruly students at particularly tense times; (4) prior to suspension, students are entitled to know school policy and procedures concerning suspensions; and (5) school officials may protect themselves from financial liability by providing suspended students with alternative educational opportunities, such as individualized home-study programs, correspondence courses, adult education programs, and evening classes.

Both of these abstracts focus in closely on the main points of the document. The initial sentences mention both school suspension and court decisions/legal issues, immediately signaling the overall topic of the document. They are written in the active voice, utilize the author's language and tense, and generally follow the logical sequence of the document.

The first abstract deviates slightly from the author's exact order of presentation, while the second underscores that order by using a numbered "list." The list, separated by semi-colons and with numbers in closed
parentheses, makes it clear that all the information following the colon represents the opinions of the courts. The use of both semi-colons and numbering in a list, though common, is not always necessary. Here they create a sense of distance between each item and partially disguise the fact that the first three all begin with the word "suspensions" (which would be very noticeable if each were a separate sentence). Note that the first abstractor has gotten around this problem by collapsing the second and third items into one sentence—"While suspensions..., they..." Note also how the second abstractor has handled the redundancy in items one and four.

Your abstract should contain, at a minimum, the statement of conflict of rights and the five points. If you were able to construct an even more comprehensive initial sentence than these samples provide, such as "Recent court decisions are beginning to clarify the rights of schools, students, and parents with regard to suspension from school," so much the better. However, if your abstract begins "Today schools are faced with escalating student disruptions and school conflict," or otherwise emphasizes student violence, this is an error. Users seeking information on student violence would find little hard information on that topic here.

Mention of specific court cases in the abstract must be discretionary in this instance. The problem is not that too many are cited, but that complete citations are given only for four of the six cases mentioned. This is unfortunate; searches for specific court cases are frequently requested by ERIC users, and the author's omission of citations for two of the most
frequently mentioned cases poses a problem for indexing, which we will consider next.

6. **Indexing**

Before you begin following the indexing steps outlined below, you should have read Sections 7 and 8 of the **ERIC Processing Manual**. Ask your supervisor to review with you the structure and use of the **Thesaurus** and its related tools; the Rotated Display, the Hierarchical Display, and the Descriptor Group Display. Select a page out of the published **Thesaurus** and compare it with the same section of the Working Copy of the **Thesaurus**. Lack of variable typography in the Working Copy makes it easy to inadvertently use a cross-reference (UF) instead of an authorized descriptor. Use only the Working Copy for indexing. Follow the guidelines in Section 7 of the **Manual** for converting upper case descriptors in the Working Copy to the upper/lower case format required for actual input.

7. **Distilled instructions from the ERIC Processing Manual**

   a. **Index** the document in hand, not its implications... (to which we would add—do **not** index your abstract!)

   b. The indexer should attempt to capture all the significant concepts treated in the document. **Mere mention of any concept within a document does not mean that it is indexable information.**

   c. The indexer should index concepts at the generic/specific level actually covered in the document.

   d. **Do not engage in mere "word indexing."** Isolate the concept and meaning behind the words and then choose the words the system has designated for the concept.
e. Indexers should always refer to a checklist of indexable elements.
   - population concepts
     - educational level
     - age, race, occupation, etc.
   - activities/action concepts
   - methodology/materials concepts
   - curriculum concepts
   - document form/type (see footnote on page 19 re "pubtype codes")
   - identifiers

8. Instructions for indexing
   a. Put your abstract where you can't see it. You're going to index the document, not your abstract.
   b. Flip through the document once more, focusing on the significant concepts and the amount of hard information actually given about each.
   c. Now isolate in your mind, and as specifically as possible, the concepts representing the overall topic or subject of the document. Write these in the boxes along the side of an indexing worksheet.
   d. Continue by adding secondary concepts treated in the document. Add more boxes to the worksheet as necessary. The concepts you identified in item "c" should be coextensive with the entire document. Secondary concepts may cover only a portion of the document. (Warning: This distinction has nothing to do with weighting.)
   e. Test each concept by asking the question "Would someone looking for information on this concept be satisfied to retrieve this document?" Eliminate any concepts that do not meet the test.
   f. Begin using the latest Working Copy of the Thesaurus to identify possible descriptors to represent each concept. Write these in the columns beside each concept heading. Do not be too selective; write down as many possibilities as you can find for each so that you can review them together.

   (1) In the main Alphabetical Display, examine the display for each descriptor you consider, both for further possibilities (especially NTs)* and to make sure it represents the concept you think it does.

   (2) If a descriptor does not have a scope note, its meaning can usually be verified through the evidence of its BTs, NTs, and RTs, and by looking in the subject index of Resources in Education.

* All NTs are not visible in the Alphabetical Display. Use the Hierarchical Display for scanning complete generic trees.
(3) Use the Rotated Display, as needed, but do not write down any descriptor found there without first examining its meaning and use in the Alphabetical Display.

g. When you have finished with all the concepts, start cutting. Retain those descriptors that most closely match the scope of the target concepts at the desired level of specificity. In choosing among closely related descriptors, select on the basis of the applicability of their BTs and NTs to the target concept. Do not retain too many descriptors beginning with the same word.

h. Add any necessary identifiers. (See Section 8 (Part 2) of the ERIC Processing Manual for identifier rules.)

i. Now weight your indexing by assigning asterisks (*). Test your major terms by combining them in a phrase. Does that phrase reflect the overall content of the document? Is there significant information to back up each major descriptor? Does each represent a useful approach for the manual searcher?

9. Indexable Concepts

"Can Schools Suspend Your Children?" is a tightly focused paper. Your indexing should be equally focused. The primary concepts include:

Suspension--The Thesaurus includes the exact descriptor.

Rights of Students--STUDENT RIGHTS is the exact equivalent concept.

Rights of Schools--The main issue before the courts is the weighing of rights of students and schools. However, there is no way to index "rights of schools" appropriately. An identifier such as "School Rights" is too ambiguous.

Court Decisions and Court Cases--Both "Court Decisions" and "Court Cases" in the Thesaurus refer the indexer to COURT LITIGATION. The scope note for COURT LITIGATION reads "Legal action or process in a court."

Due Process--Again, the exact concept is available. "Fair Hearings" and "Rights of Appeal" are not stressed in the document as much as DUE PROCESS is; in a sense these are a part of DUE PROCESS.
Liability of School Officials--"Liability (Responsibility)" refers to LEGAL RESPONSIBILITY. This descriptor is doubly valuable for indexing the document; it captures the concept of liability plus the idea that court decisions have made school officials legally responsible to follow certain procedures. ADMINISTRATOR RESPONSIBILITY, used as a minor index term, is appropriate as a supporting descriptor.

Descriptors representing the above concepts should be used as major index terms.

Indexable secondary concepts include:

Suspension Policies and Procedures--DISCIPLINE POLICY is the closest equivalent. All our experienced indexers used it. SCHOOL POLICY is much broader but is marginally acceptable. BOARD OF EDUCATION POLICY is really too narrow.

Minority Students--The document only includes a few paragraphs on this aspect, but they provide solid information. MINORITY GROUPS is the closest equivalent. MINORITY GROUP CHILDREN is too narrow.

Alternative Educational Opportunities--This concept is marginally indexable. The document really says little about this, but it is directly related to the liability concept. NONTRADITIONAL EDUCATION is the best possibility for capturing this concept. EDUCATIONAL OPPORTUNITIES is too broad.
Specific Case Cited—Because of the author's inconsistency, use of the case citations as identifiers has to be discretionary. Not enough is said about TINKER or PERCY MCDONALD to warrant indexing them. WOOD, on which the liability judgment rests, is indexed but not cited adequately. GOSS is mentioned most often; the appropriate construction of the identifier (on the basis of the information provided and the Identifier Authority List) would be "Goss v Lopez." WILLIAMS is also indexable—"Williams v Dade County School Board." None of our experienced indexers used case citations as identifiers.

10. Non-Indexable Concepts

Mandatory educational level (see footnote, p. 18)—By definition, the court rulings apply to all educational levels; therefore, none of the mandatory leveling terms are suitable for indexing this document.

Student Violence, Unruly Behavior, etc.—These concepts provide the background to the problem, but they are not indexable concepts. The document says nothing about this aspect except that such behavior is increasing. The statement is not supported in any way. Users interested in misbehavior will not find this single bit of information enlightening.

Law and/or Legislation concepts—Legislation descriptors have nothing to do with this document. The court decisions become a part of case law, but this is an implication of the document. CONSTITUTIONAL LAW and SCHOOL LAW are much too broad and more than a little off-base.
School Officials, Board of Education, Parent, and Specific Types of Student (e.g., College Students) concepts are not really indexable. An argument might be made for some School Officials term but this concept is not clearly defined in the document. ADMINISTRATOR RESPONSIBILITY is enough. The document is pretty far out in left field for someone interested in the concept represented by PARENT SCHOOL RELATIONSHIP.

School Administration Concepts--Too broad.

Well, how did you do? If you: assigned *SUSPENSION, *DUE PROCESS, *STUDENT RIGHTS, and *LEGAL RESPONSIBILITY you did very well. You should not have missed any of these. If you assigned a "Misbehavior" or "Parent" term, these are not serious mistakes. LEGAL PROBLEMS would be acceptable as a minor descriptor, but it is not necessary.

11. Pub Type Code

This document is a "state-of-the-art" paper. Pub Type code 070 is appropriate.
<table>
<thead>
<tr>
<th>CONCEPTS</th>
<th>MAJOR</th>
<th>MINOR</th>
<th>JUSTIFICATION</th>
<th>TOO BROAD/OFF-TARGET</th>
</tr>
</thead>
<tbody>
<tr>
<td>DISCIPLINE CONCEPTS</td>
<td>*SUSPENSION *</td>
<td>DISCIPLINE POLICY</td>
<td>CENTRAL FOCUS OF DOCUMENT</td>
<td>PUNISHMENT</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>BEHAVIOR PROBLEMS</td>
</tr>
<tr>
<td>LEGAL CONCEPTS</td>
<td>*COURT LITIGATION</td>
<td></td>
<td>UF COURT DECISIONS</td>
<td>HEARINGS</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>UF COURT CASES</td>
<td>SCHOOL ATTENDANCE</td>
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<td></td>
<td>*STUDENT RIGHTS</td>
<td></td>
<td>CENTRAL FOCUS OF DOCUMENT</td>
<td>LEGISLATION</td>
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<tr>
<td></td>
<td>*DUE PROCESS</td>
<td></td>
<td>CENTRAL FOCUS OF DOCUMENT</td>
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</tr>
<tr>
<td></td>
<td>*LEGAL RESPONSIBILITY</td>
<td></td>
<td>UF LIABILITY (RESPONSIBILITY)</td>
<td></td>
</tr>
<tr>
<td>POPULATION CONCEPTS</td>
<td>MINORITY GROUPS</td>
<td>SPECIFIC INFORMATION PROVIDED</td>
<td>DOCUMENT OUTLINES WHAT STEPS SCHOOL OFFICIALS MUST TAKE</td>
<td>PARENT SCHOOL RELATIONSHIP</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Administrator Responsibility</td>
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<td>PARENT ROLE</td>
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<td></td>
<td>BOARD OF EDUCATION POLICY</td>
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<td></td>
<td>ADMINISTRATORS</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>RACIAL DISCRIMINATION</td>
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<tr>
<td>MANDATORY LEVELER</td>
<td></td>
<td></td>
<td>NONE APPLICABLE</td>
<td></td>
</tr>
<tr>
<td>OTHER</td>
<td>NONTRADITIONAL EDUCATION</td>
<td>RELATED TO LIABILITY</td>
<td>EDUCATIONAL OPPORTUNITIES</td>
<td></td>
</tr>
</tbody>
</table>
All of us can remember school fights. When two boys scrapped on the playground, they were sent home and told not to come back "until your parents see the principal." If Johnny pulled Suzie's hair, a quick two-day suspension was the result. If the problems were more serious, students were sent home for longer periods of time. "When you learn to obey school rules," they were told, "you can come back to school."

When children were suspended from school in the "old days," parents came to school for a serious conference. The principal cited the violations committed by the students and emphasized the need for discipline. He talked about proper behavior, the need for parents to support the school, and the values associated with good student conduct. Parents listened politely. The student usually received additional punishment at home. Things have changed!

Recent court decisions have made it more difficult to suspend students from school. There are certain things that schools can and cannot do in the area of suspensions. In addition, the threats of legal action by parents have forced school officials to become more cautious in suspending students. Many groups are now insisting that suspensions are illegal and that parents should sue when children are denied the opportunity of going to school. This is illustrated by the case of the first grade student who was sent home because he had abusive language. When told by the mother to cry if he were upset, the child said: "Cry, hell! I'm going to sue someone!"

The problem with suspensions is that it creates a conflict of rights. On the one hand, there is the basic right of all students to obtain an education without violence, abuse, extortion, or intimidation. On the other hand, there is the right of the individual student to receive justice and "due process." The rights of schools to educate and maintain order are longstanding traditional rights. The right of "due process" is guaranteed under the U.S. Constitution. Due process is a procedure to establish fairness while making decisions or enforcing "reasonable rules and regulations."

School officials have a difficult time doing a balancing act between the rights of the entire student body and the rights of individual students. Faced with increased disregard for school rules and regulations, they are unable to use suspensions in the traditional manner. At the same time, they have a deep concern for all legal rights which the courts now say apply to children as well as adults.

Suspensions also raise fundamental questions about education in a free
Can Schools Suspend Your Children?

society. Is education an unqualified right? Do all students have a right to an education regardless of their conduct? How far should school officials go to promote justice? Is due process in schools the same as due process in courts? When may a child be removed from the classroom? Does suspension from school create financial liability for school officials?

These are difficult and complex questions. Recent court decisions support conflicting points of view. Some things, however, are being clarified. While there is still much concern among teachers and parents, the issues around suspensions are becoming increasingly clear. The things that schools can and cannot do are being more precisely defined. Here is what is happening.

Suspensions are legal under certain conditions when proper procedures are followed. In Williams v. Dade County School Board, the court held that suspension was proper as an emergency matter. Goss v. Lopez established that children have a basic right to an education; and if they are suspended from school, they are entitled to a fair hearing and to adequate due process. Both cases supported suspension under appropriate conditions.

In Tinker v. Des Moines Independent Community School District, the court said that college students have a right to a fair hearing before expulsion. Percy McDonald v. Board of Trustees of the University of Illinois held that an informal hearing was properly conducted prior to expulsion.

These cases clearly support the ability of schools to suspend students from school. They do say, however, that prior to such action, students are entitled to basic rights which are theirs under the U.S. Constitution. Such rights include a fair hearing, due process, and the right of appeal. The decisions generally try to balance the two important, historical, and fundamental rights: the right of schools to educate and the right of individuals to receive constitutional justice.

Suspensions may have been over-used as a discipline measure. It is estimated that one out of every ten junior and senior high school students is suspended from school each year. Information from the Office of Civil Rights indicates that during a school year about 20,000 students are suspended in New York City, about 9,000 in Miami, about 15,000 in Cleveland, about 7,000 in Akron, and about 9,000 in Memphis. Grounds for suspension vary greatly from school district to school district. Some suspend for "defiance of authority," some for "insubordination," and others for "refusal to conform with reasonable rules and regulations." Some districts suspend students for "classroom disruptions." One district suspended two students for "inappropriate eating manners in the cafeteria."

Suspensions are strongly opposed by minority groups. They claim that minor-
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It is clear that children are hurt by such actions. They also show that a disproportionate number of minority children are suspended by white administrators who cannot relate to minority students. In New York schools 64% are minorities, but of those suspended 86% are minorities. In Dallas the school population is 49% minority, but of those suspended 68% are minorities. The highest rate of suspension appears to occur with blacks; the next, with Spanish children; and the next, with other minorities. Those who oppose suspension claim that minority children are further handicapped when they are denied the opportunity to continue their education.

Suspensions appear to be appropriate as a short-term emergency measure. Williams v. Dade County School Board has established that suspension is appropriate as an emergency measure. In that case, the court said that suspension may be used "to remove unruly students at a particularly tense time." In Goss v. Lopez, Justice White supported the possibility of short term suspension when the actions of students endangered the academic process.

When such actions are taken, however, parents are entitled to some basic information. School officials should make clear the reasons for their actions and explain the basis for suspension. Parents should also be informed about appeal procedures. They should have an opportunity to meet with the Board of Education if they wish to do so. And finally, parents are entitled to know the remedies required by the school so that students may continue their educational program at a later time.

Suspensions justified under emergency situations are usually of short duration, many of them for only one day or until the emergency has been controlled. Even the most adamant opponents of suspension accept such action under emergency situations. Generally the courts do not interfere with school officials who act to control explosive situations and conditions which may result in "injury to persons or damage to property."

Prior to suspension students are entitled to a fair hearing and to due process. Students and parents are entitled to know school board policies and suspension procedures. Goss, Dixon, and Wood all established the basic right of students to procedural due process before suspension. This matter, however, is not yet fully settled. Debate will continue concerning what constitutes a fair hearing, what steps are involved in due process, and to what extent school officials must go to establish procedures followed by law enforcement agencies. There is agreement, however, that before suspension due process must be followed. Some kind of hearing must be conducted.
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Goss contends that students are entitled to the minimum procedures of due process for short suspensions (less than 10 days) and "more formal procedures" for longer suspensions. At the same time the court said: "Nor do we put aside the possibility that in unusual circumstances, although involving only a short suspension, something more than rudimentary procedures will be required." Such circumstances may be when extreme damage would result from the suspension: not graduating, not being able to go to college, not being accepted for a job. It is essential that, in the process, students are allowed to explain their side of the situation and that they are given a fair opportunity to discuss the matter.

A fair hearing requires that school officials suspend judgment until all information is obtained. School officials should listen to all parties. A final decision should be made after an objective and thorough investigation. Due process requires that school officials inform students of their investigation. If the decision is to suspend, students are to be given the reasons for suspension, the information gathered by the official, and the procedures for appealing the decision. Parents should be informed as quickly as possible and given the same information presented to the students.

Should the parents and their children appeal the decision of a principal, they are entitled to meet with the superintendent, and if not satisfied, to have a hearing before the Board of Education. Beyond that they have redress through the courts.

Wood, in addition to establishing the need for due process, also dealt with the question of financial liability. The opinion of the Court was that liability occurred if school board members acted "with malicious intention to cause a deprivation of constitutional rights or other injury to the student." Should it be determined that officials act without justification in suspending students, they may be required to pay money damages.

To avoid liability, schools should provide alternative educational opportunities for suspended students. Students may claim that because of suspensions they were unable to graduate, get a job, go to college, or acquire some benefit. To reduce this possibility, school officials often provide opportunities for home study, adult school, or evening classes for suspended students.

Parents of suspended students should consult with school officials to make alternative educational plans for their children. Credits may be earned through individualized home-study programs, correspondence courses, adult education programs, and classes in the evening school. The chief aim is to make it possible
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for the student to continue his education without attending regular classes. Recent court decisions support school officials who suspend students from classes, but provide other ways of continuing their education. Thus liability is reduced because possible "educational damage" to the student is lessened.

School officials should separate educational opportunity from punishing students for school infractions. Following a hearing, due process procedures, and determining that students should be suspended, may, nevertheless, make sense to provide alternative educational opportunities, so that students are punished but do not stop learning.

Today schools are faced with escalating student disruptions and school conflict. Under such pressures, school officials often remove students from school. Suspension thus becomes a test between the school's need for order and the student's right to an education.

No one can show with clarity that suspensions prevent an increase of student violence. School officials claim that they do. Student advocates claim that they do not. The courts are reluctant to make a judgment. Courts have clearly said, however, that when suspension is used, the constitutional rights of students must be protected. This includes a fair hearing, proper due process, and the possibility of alternative educational programs.

While the area of suspension may be in great conflict at the present time, if school officials and parents work together to develop acceptable guidelines, all may benefit. Schools may be able to reduce rapidly rising violence and students may be protected from unjust, punitive actions. The challenge is not to "win" over one another. Rather, it is to find a way which is satisfactory to both schools and homes.

Revised 12/29/76
1. Characteristics of document type

The position paper on "Dean Power" focuses on the need for college deans to acquire and practice analytical skills associated with the management of conflict. On the bottom of page 3 and the top of page 4 the author summarizes the purpose of the paper.

Position papers (there are many in the ERIC system) present the author's personal statement about a particular situation, problem, or concern; discuss these aspects in a varying amount of depth; and offer suggestions or solutions posited by the author. The position held by the author can be backed up by experiences or research. Many times the author may include background information on the focus of the paper or review positions held by others. Occasionally the presentation can be very rambling, making it very difficult to determine significant and important points.

The essential characteristic of such a document is that it is usually very loosely structured; it varies in length, although most position papers are usually less than 50 pages. Normally, the paper includes a statement of premise or thesis. Ideas are then developed with supporting examples and facts.
2. **What a practiced eye will look for in a position paper**

You will recall that in the first document you abstracted, "Can Schools Suspend Your Children?", you were told the importance of skimming a document. Since this is an important concept for you to grasp, some information will be repeated.

It is important for you to examine the length and structure of each document. Look for discrete sections, section headings, numbering, and any other structural indicators. Look for sections which may supply either a summary or summary-like information such as an author abstract, preface, or introduction.

Now, take out the document on "Dean Power" and scan it for a possible author abstract and look for guidelines to the document that are mentioned above.

After scanning the document, you will note the author gives little assistance to save you from reading the entire document. There is no author abstract. In the introduction the author does describe his purpose, but does not summarize his paper. There are no headings or other structural indicators. Finally, there is no summary.

At this point it is necessary to scan the first and last few paragraphs for summary information. After you have done this, you will note that you still do not have enough information on which to base your abstract. Because authors sometimes sneak in some summary information in an unidentified section, it is necessary to skim the introduction and the key topic sentences of every paragraph. Pay particular attention to the last two or three pages.
since important information is sometimes included here. What we find (as
is often the case) is that the author indeed has not provided much assistance
for writing the abstract. For this reason, and because the document is rela-
tively short, it now behooves the abstractor to read the entire document.
It is important that the document be read completely to be sure that all the
author's ideas and the relative importance of each idea are understood. It
is useful, when reading the paper, to take note of any sentences which may
help you write the abstract later; however, beware of making notes on documents
themselves since such notes can show later on the document microfiche. Read
the document now.

3. Parts of the document on which the abstract should be based

The abstract should be based on those parts that best present the
thrust of the document. The first few paragraphs on pages 3 and 4 of
"Dean Power" introduce the topic and describe the purpose of the paper.

Paragraph 4 on page 3 and the top of page 4 provides enough
information for a good topic sentence which should focus on the need for
deans to acquire and use analytical skills to build political coalitions
and manage conflict. The author in the first paragraph on page 4 tells
how to build political coalitions, and how to manage conflict.

He tells us that he intends to discuss three functionally interdepen-
dent components associated with building coalitions: (1) persuasion and
bargaining; (2) conditions under which bargaining takes place; and (3) credi-
bility and the exercise of authority. He then discusses each of these
components in some detail. For example, on pages 4 through 7, he discusses persuasion and bargaining; on pages 7 through 10, he describes the six conditions under which bargaining takes place; and on pages 10 through 12, he discusses credibility and the exercise of authority. On pages 12 through 14, the author discusses and concludes with some skills associated with the successful management of conflict.

The abstract should be based on the middle part of the document in order to develop the ideas presented in the paper. To weight the abstract in relation to the document, it is then necessary to discuss each of the components which are discussed in some detail on pages 4 through 12.

4. Essential features of the content of the abstract

These sample abstracts, written by other abstractors, are included for your review.

Sample Abstract #1

Because they are mediators between the central university administration and their own faculties and often find themselves caught between their faculties and various groups outside the college, academic deans must know how to build effective political coalitions and how to manage conflicts. They must understand the political nature of their positions and must develop effective communication channels and persuasion skills. In analyzing their persuasive capabilities in any given conflict, deans must consider (1) whether or not the problem is routine, (2) the structure of the decision-making forum involved, (3) the status and personalities of the persons with whom they are dealing, (4) the value of proper timing, and (5) the importance of the issue in dispute to all concerned. If they are to remain credible, deans must strictly adhere to the reward/punishment structure of their institutions, must exercise their authority with restraint, and must promote trust and shared assumptions by involving their colleagues in open discussion and mutual exploration of issues.
Sample Abstract #2

One decision-making skill is of particular importance to the academic dean: the analysis of coalitions, or the management of conflict. Building political coalitions has three interdependent components: (1) persuasion and bargaining; (2) the conditions under which bargaining takes place; and (3) credibility and the exercise of authority. Persuasion is probably the most important interpersonal tool for a dean; it is a form of bargaining, a political process that is frequently used in higher education and can be complex. Effective bargaining requires an understanding of the conditions under which it takes place: how routine the issue is, how highly structured the decision-making unit, the status of the bargainers, individual personalities involved, the time factor, and the issue's potency. Credibility and the exercise of authority are also critical elements, and their use can be compared to the exchange process in a marketplace. Where deans have their most difficulty, however, is in their feelings about and attention paid to individual faculty members. The communication between deans and faculty can take the form of either negotiation or dialogue. It is the latter that engages the participants in educational tasks, and it is only when the dean accomplishes this that he can successfully manage conflict.

Note that both abstracts synthesize the main points of the document. Both contain topic sentences which let the reader know that the paper focuses on the need for deans to acquire and practice analytical skills associated with the management of conflict.

Both of the sample abstracts include the significant content from the document. The abstractors "weighted" their abstracts in the same proportions and with the same emphases as the document.

The middle part of each abstract builds upon the major ideas introduced in the first sentence. For example, both abstracts mention conditions that affect a form of bargaining in a given situation. Both mention the importance of deans bargaining in a given situation. Both mention the importance of deans
maintaining credibility and factors for maintaining this credibility. All of the author's major ideas are included in a clear and concise manner.

The conclusion makes up the last part of the abstract. Abstract #1 probably best illustrates the use of a more concise and helpful concluding statement.

**5. Writing Style**

**Sentence Structure**

In the two sample abstracts, the abstractors varied the length of their complete sentences which are therefore not monotonous. Transitional words, phrases, and clauses pass smoothly from one sentence to the next.

**Mood**

The mood of the two sample abstracts differ. Although both of the abstractors write using an active voice, in Abstract #1, the abstractor writes in a subjective mood (deans must). In the second sample abstract, the abstractor writes in an indicative mood (effective bargaining requires).

**Voice**

The voice used in both abstracts is active which is appropriate for an informative abstract. "Credibility and the exercise of authority are also critical elements" rather than "credibility and the exercise of authority are determined to be critical elements."
6. Indexable Concepts for "Dean Power"

**MAJOR**
- ADMINISTRATOR ROLE
- ACADEMIC DEANS
- CONFLICT RESOLUTION
- TEACHER ADMINISTRATOR RELATIONSHIP

**MINOR**
- ADMINISTRATIVE PROBLEMS
- COLLEGE ADMINISTRATION
- COLLEGE FACULTY
- COMMUNICATION PROBLEMS
- COMMUNICATION SKILLS
- CREDIBILITY
- DECISION MAKING SKILLS
- HIGHER EDUCATION
- POWER STRUCTURE
- ORGANIZATIONAL CLIMATE
- PROBLEM SOLVING
- LEADERSHIP QUALITIES

**Population Concepts**

*ACADEMIC DEANS is a very specific descriptor; the paper is directed toward the problem of college deans managing conflict. COLLEGE FACULTY may be used as a minor descriptor because the paper is discussing the relationship between the dean and faculty. The major emphasis in the document focuses on the deans, however, not the faculty. Descriptors that are too broad include: DEANS, ADMINISTRATORS, and DEPARTMENT HEADS.*
Administrative Concepts

*ADMINISTRATOR ROLE should be used as a major concept since the paper discusses that a major role of the dean should be to manage conflict. It might be advisable to index the document making COLLEGE ADMINISTRATION, LEADERSHIP QUALITIES, and ADMINISTRATIVE PROBLEMS minor concepts. Other concepts such as EDUCATIONAL ADMINISTRATION, GOVERNANCE, and LEADERSHIP STYLES are too broad to be of much use to a searcher.

Power Concepts

*CONFLICT RESOLUTION should be used as a major descriptor since it is another specific descriptor reflecting content. PROBLEM SOLVING should be a minor concept since this idea is presented in the paper. CONFLICT RESOLUTION and PROBLEM SOLVING are often used together. POWER STRUCTURE can be used as a minor because the document is discussing such concepts as status which relates to power structure. DECISION MAKING SKILLS should also be used as a minor. Concepts such as DECISION MAKING, POLITICAL INFLUENCES, INDIVIDUAL POWER, and POLITICAL POWER are broad terms which would not be useful to a searcher.

Communication Concepts

*TEACHER ADMINISTRATOR RELATIONSHIP should be a major since the paper focuses on the relationship between the deans and the faculty. CREDIBILITY, COMMUNICATION SKILLS, COMMUNICATION PROBLEMS, and ORGANIZATIONAL CLIMATE should be minor descriptors since these ideas are dealt with in the paper. INTERPERSONAL RELATIONSHIP, ORGANIZATIONAL
COMMUNICATION, INTERPERSONAL COMPETENCE, INTERPROFESSIONAL
RELATIONSHIP, PERSUASIVE DISCOURSE, HUMAN RELATIONS, PERSONALITY,
and SOCIAL EXCHANGE THEORY are too broad or off-target.

**Mandatory Leveling Term**

**HIGHER EDUCATION** should be a minor concept. This is one of
the mandatory descriptors which should be used for indexing when a
document deals with educational levels.

**Pub Type Code**

This document is an opinion paper. Pub Type code 120 is
appropriate.
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Dean Power: Or, on Providing Good Reasons
Why Someone Should Not Do Something

BY

Robert H. Koff, Dean
College of Education
Roosevelt University

A Paper presented as part of a symposium
titled The Deanship in Education:
Analytical Skills, Problems and Prospects
at The American Educational Research Association
Meeting, San Francisco, California, April, 1976.

Chicago, Illinois
By way of introduction I would like to make two observations about this paper before starting -- first, the analysis of the obvious is very difficult, and second, it is easier to understand something than it is to change it. That is, just because we understand something does not mean that that understanding can be translated into action. One of the most frustrating aspects of deaning is the dissonance one must learn to live with because of the inability to translate understanding into action.

The author gratefully acknowledges the insightful and helpful comments of David H. Florio.
Until quite recently, social scientists have neglected systematic inquiries into the academic life and the problems of academic administration. Now, following nearly a decade of unsettling changes in higher education, so much is being written about the university professor and the academic administrator that it is difficult to review adequately all the published material. But current literature does indicate that very little of this research contributes substantively to the development of theory capable of guiding practice. This is not to deny the value of what a number of investigators have been and are currently doing; it is rather a caution. There is simply little warranted knowledge about the genus, academic dean.

Today, four of us, deans of education representing four different institutions, are presenting our views. Two of us are with public institutions, two with private. Two institutions have a reputation for their emphasis on education research; two are known for their orientation toward teaching and service to innercity clients. Each of the four deans uses analytical skills and strategies for identifying and solving problems. Each recognizes that the tools of analysis that are employed must match this institution's ethos and his own personal style and pattern of managerial activities.

Jim March, in an excellent paper, discusses his ideas about management in educational institutions. He describes decision making as involving five analytical skills that are linked to the things that managers do.

Because of the severe limitation on our time I will concentrate on discussing one analytical skill that March has identified -- the analysis of coalitions -- the management of conflict. I have chosen to concentrate

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on this particular skill because as the first dean of a new college of education I have spent a considerable amount of time trying to make practical application of it.

I will discuss three functionally interdependent components associated with building political coalitions: (1) persuasion and bargaining; (2) the conditions under which bargaining takes place; (3) credibility and the exercise of authority.

I would like, however, to add a disclaimer here -- although I propose to deal with the analytical skill associated with the management of conflict, it is important that my comments be viewed in a broader perspective. That is, deans lead and sometimes follow; deans may or may not respond to disorder and conflict by seeking to make sense out of divergent views; and deans do not necessarily equate conflict with pathology. My intention is to discuss a skill that draws much of its substantive character from the discipline of political science. It is not my intention, however, to convey the impression that a dean (or any administrative leadership position) is entirely concerned with political matters. Political concerns are commonplace to deaning, but are by no means the only matters that count.

Depending on the issues involved, a dean is either persuading an individual or a group of individuals to do something or not do something. It isn't very often that a dean can remain neutral. As Dante said, "there is a special place in Hell reserved for those who, in time of crisis, try to remain neutral."

It has been my observation that a dean often spends as much time trying to persuade his own faculty as he does the central university administration. New faculty members realize the bind in which deans often find themselves -- on the one hand they are line administrators and on the other, they must
demonstrate their loyalty to their academic division and represent that unit to the University administration. It is as important to spend time communicating with one's colleagues as it is dealing with members of the central administration.

Depending on the ethos of the institution, the administration is often characterized as either "gatekeeping" or "facilitation." It has been my experience that faculty rarely think of administrators -- especially deans -- as facilitators. This is unfortunate because it establishes role expectations which are often detrimental to a successful management of conflict. Hence the rather pessimistic title of my paper. Otherwise it could have been called -- Dean Power: Or, on providing good reasons why someone should do something.

Obviously, effective communication skills are essential to management of conflict and building of coalitions. Even the best efforts will not be effective unless all parties are informed about the issues, are able to talk with one another and understand that continued dialogues will be productive. Once people stop talking or are systematically excluded from discussions, the task of building coalitions becomes almost impossible.

Persuasion is probably the most important interpersonal tool a dean has available to help build coalitions and reduce and/or increase conflict. Persuasion is really a form of bargaining, and bargaining is a distinctly political process.

Bargaining as a means of building coalitions is an incredibly complex phenomenon. I don't understand it well, but I will try to convey some thing I have learned.

When successful bargaining has not required direct negotiation, it might be said that a dean has usually been effective in exerting his influence.
When bargaining does involve negotiation, agreements usually result. Agreements can be either explicit or implicit. Higher education is famous for its explicit bargaining. Explicit agreements are documented through blizzards of memoranda which find their way into each of our lives.

Times, however, a dean must take a kind of action which can best be described as a form of non-negotiated bargaining. When a dean acts without regard for the consequences, without involving other decision makers or asking faculty opinion, such action is called unilateral action. Faculty and the university administration expect to be consulted before most actions are taken, and they should be consulted. When they are not, it is a rare event. Perhaps this is why deans, when asked how they do, say, "I'll let you know after I've checked with the full professors."

Every dean can be thought of as having an inventory of credibility "blue chips." Deans who take unilateral action are expending these blue chips with their colleagues and the university administration. Taking action without allowing others the opportunity for dialogues is a risky business, and it rapidly depletes the stock of credibility chips.

There are other forms of bargaining which involve more direct negotiation between two or more people. For example, "logrolling." This is the type of bargaining in which "you give me what I want, and I'll give you what you want." There is a form of logrolling which includes a time variable. The sense of the bargain is "you support me now, and I'll support you some time in the future." Then, of course, there is compromise. Compromise takes the general form, "you want A, I want C, let's settle on B." Finally, there is the kind of bargaining which is called "side-payment." It takes

the form of, "you support me and I will reward you" or alternatively, "you support me or else I will punish you."

In order to bargain effectively, one must develop an understanding about the conditions under which various types of bargaining take place. For purposes of discussion, I shall briefly discuss six types.

The first kind of condition under which bargaining takes place is the **routine condition**. An organization usually has developed relatively standard and routine ways of handling issues which must be dealt with frequently. Similarly, people in administrative positions usually have developed ways of handling problems which repeatedly come across their desks. Hence it is important to determine what are the expectations and routine in the institution for handling recurring problems. There is also the problem, when new to the job, of determining what, in fact, is a routine problem.

The second type of condition under which bargaining takes place is concerned with **structure**. Highly structured decision-making units -- like the faculty council, standing committees, the full professors -- require a different kind of attention than decentralized decision-making units such as admission committees, advisory boards, and ad hoc committees.

**Status** is the third condition which affects bargaining. The more resources one has at his disposal, the better able he is to bargain. For example, a department chairperson has more resources and status than an instructor. The president of the faculty senate has more resources than a newly appointed standing-committee member. And there is, of course, the full professor who has more resources than a dean. Be that as it may, the variables of status and resources need to be taken into account when bargaining -- especially if a compromise has to be effected, and it is important that nobody loses face or appears to have given up resources over which he has control.
A fourth condition is personality. The personalities of the individuals involved in decision making and coalition building play an important role in the bargaining process. For example, there are some individuals who simply cannot be trusted to keep a bargain. Those who cannot be trusted to keep a bargain often engage in a game called "stool sucker." They will enter into a bargain and then when it suits them back out of it by entering into a coalition with another group and/or individual. There are others who have strong ideological positions and thus find it very difficult to compromise. Individuals with strong ideological positions usually stand on principle, and unless they are willing to say "you give me what I want, and I'll give you what you want," one does not make much progress.

There are situations where decision making and bargaining are linked to the variable of time. Certain kinds of bargaining go on before other types of bargaining are employed. In this kind of time-sequenced situation, everyone is willing to give in a little in order to get something, but not without a fight and certainly not without a reduction in status. Collective bargaining negotiations are an excellent example of this type of time related bargaining.

The sixth and last condition is concerned with the nature of the issue involved. There are a number of ways in which issues may be distinguished. The characteristic which is of primary concern to a dean, however, is the extent to which opposition to a given issue might be generated. For example, an issue sometimes is labeled as "a hot potato" because it is assumed that it will polarize faculty opinion. The potency of an issue will determine to a significant degree the process of bargaining and, hence, the ability to manage conflict.
A distinction should be made between external and internal issues. External issues lie outside of the college and usually involve a threat to programs or college budget. The dean's responsibility in handling external issues is to define and present them to the faculty for their analysis and recommendation. Internal issues usually involve conflict about status, personality and realignment of groups within the college. The technology of bargaining varies as a result of whether an issue is viewed as an external or internal problem.

Further, a dean needs to be sensitive to political coalitions which he enters into as a representative of his institution. For example, a dean has a responsibility to represent his institution to policy makers at the federal and state levels as well as within various professional organizations. In this effort a dean must continually communicate with his faculty about how he is trying to represent their interests while, at the same time, managing conflict and forming coalitions with external groups and related publics.

Given the external vs. internal division of issues, there are times when a dean, just as he can be squeezed between the central administration and his faculty, can be in conflict with his faculty and any number and/or combination of external groups -- including other deans of education. Time does not permit detailed exploration of this area. I believe, however, that it deserves further attention.

A dean has considerable authority which accrues as a consequence of the way his role is defined. How he exercises his authority, however, will determine whether or not he will be able to maintain it. For example, the side-payment form of bargaining has the potential for creating problems.
for a dean. Although it is a bit simplistic, most individuals tend to view people as either angels or devils. Good people are rewarded, and bad people are punished. If a dean divides the world into those who are for him and those who are against him, he will find it difficult not to exercise his authority to reward or punish people depending upon his personal feelings about them. Such behavior is, obviously, unfair and runs contrary to our values. This leads me to another concern -- the history and current status of the reward structure of institutions.

The faculty and the university administration expect a dean to bestow rewards in a manner consistent with the ethos of the institution. A working understanding of the reward structure of the institution is essential to building effective political coalitions and to the management of conflict.

As mentioned previously, a dean can be thought of as having an inventory of blue credibility chips. When rewards or punishments are meted out inappropriately, more credibility is lost. The power to reward must be used wisely, and a dean must learn, if he does not know it beforehand, that what people admire most about power is the restraint with which it is used. Whenever "dean power" is employed -- through persuasion or reward -- the potential for losing blue chips is present. When a dean's store of credibility chips is depleted, his effectiveness and ability to lead are seriously diminished.

The problem of a dean's credibility is complex. Credibility is related to such matters are reputation, trust, honesty, etc. It is my hunch that the smaller the number of blue chips a dean has spent, the greater the value of each chip remaining in the stack. When those are needed, they will be worth more. That is, chips kept in your possession grow in value.
It is possible that blue chips can increase in number and value when a dean adds a new faculty member to the staff. New faculty, however, can be both a liability and an asset. On the one hand, they tend to be more likely to support the leadership efforts of a dean to build coalitions. On the other hand, they sometimes are viewed as agents of change by the faculty and hence may serve to create problems which make bargaining more difficult.

The addition of new faculty members to a staff has, over the years, been viewed as a vehicle for developing new programs -- a source of vital energy for helping to move programs into the future. Given the fact that education is a declining industry, the degrees of budgetary freedom for hiring new faculty have been significantly reduced. The result is increased pressure on the dean to energize faculty to review program priorities while, at the same time, he must cope with difficulties associated with developing coalitions which recognize the realities of our current economic climate. Establishing program priorities and monitoring precious economic resources is a relatively new problem for deans of education. Over the last decade, deans have had significant degrees of freedom to add to staff and thereby expand or build or continue support of programs. The faculty -- individually and collectively -- benefited from these efforts in a variety of ways which tended to enhance the dean's blue chip stock.

Unfortunately the opportunity for stock dividends that can be paid for by previous affluence has declined. As a consequence, deans must develop conflict management skills and create political coalitions without the assistance and support of new faculty and the fiscal resources which were available in abundance several years ago.

Deans need assistance in thinking through the art of bargaining under conditions of limited resources, for example, to deal with the problem of
how to bring together individuals who may have not talked with one another for years, or who are, at best, terribly resistant to efforts to form new coalitions. The management of conflict with limited resources and the lack of new actors who serve to stimulate change is a new set of circumstances to be dealt with in the development of political coalitions in colleges of education. This reality has presented deans with all sorts of vexing problems and will continue to do so. This is an area of inquiry which merits attention.

In the last analysis, management of conflict is related to the ability of a dean to cope with conflict. Deans are only human; they, like everyone else, respond from their strengths and weaknesses, pride and prejudices, to new facts and old, with passions and dispassions, with affection and enmity. Most try to be fair and humane. It is hard, but many succeed.

In my judgment, where deans have the most difficulty, however, is in the area of feelings they have about and the quality of attention they pay to individual members of the faculty. Most deans, for example, find it very difficult to work with a faculty member whom they feel to be incompetent. It is difficult for a dean to communicate to such an individual that he/she is wanted and valued as a person, regardless of his or her professional deficiencies. It takes a tremendous amount of psychological energy to learn to identify positive characteristics with individuals who one feels are not doing their jobs well. It takes even more energy and a considerable amount of interpersonal skill to communicate to such individuals what things about them are liked, valued, and respected.

As mentioned previously, bargaining assumes that good communication exists between the parties involved. There are two contrasting types of
communication, two different predominant modes of communication among faculty, administration, and students. These are negotiation and dialogue. Negotiation is a means of coming to terms, conferring with the aim of arriving at a basis for agreement. Dialogue means "conversation." In the context of this discussion, it is important to note that negotiation does not presuppose trust between the parties engaged in bargaining.

People involved in negotiation start from prepared positions and usually give ground when that will serve their essentially political ends. Negotiation, then, limits choices and narrows the range of action between the bargaining parties. The quality of communication between individuals who are negotiating, who view themselves as part of a political interaction, has significant implications for the verbal and the cognitive behavior, and even the lifestyle, that the negotiator develops.

In contrast to negotiation, where the areas of discussion and ranges of choice are narrowed, dialogue is intended to widen the areas under discussion, exploring them completely. A precondition of dialogue is trust -- at least enough trust between the participants to permit them to expose their reasoning to the critical review of others as well as to re-examine it themselves. The personal relationships, the interactions between the participants in a dialogue differ significantly from the relationship between the parties to negotiation. Where there is fear of exposing one's view to criticism or unwillingness to explore other possibilities, the bargaining process is likely to be negotiation rather than dialogue. If negotiation becomes the major mode of communication for a dean, serious problems are likely to result. For example, if faculty generally communicate with a dean through negotiation, it is probably because there has been a covert, but nonetheless critical, break in trust and shared assumptions; differences
are not openly discussed and mutually explored. There are all sorts of hazards for the dean, faculty and students in such a setting.

When negotiation is the principal means of communication, the essential humanness of the interaction between the negotiating parties may well be denied. For example, when negotiation is "formalized," attorneys are often present. As a result, both the negotiating parties become more vulnerable in a special sense. They may hold more tightly to their own frame of reference, to their own view of the situation, and ignore the complexity of the content in which they are operating. The possibilities for mixed messages, for anger, and for a lawsuit are increased significantly. In such a situation, where the bargaining parties are unable to examine their frame of reference, it is difficult to achieve desirable results. This re-examination is vital to effective administration.

It is a dean's responsibility to involve his colleagues in dialogue -- to involve them with educational tasks. The extent to which faculty and the dean will be able to put their own egos on the line will be a function, to a significant degree, of the trust and alliance with each other which have been developed. That is, whether the dean has established a climate that is oriented toward dialogue and values it over negotiation. This is a significant burden for a dean. It is no simple task to work out the logistics of providing the conditions for dialogue.

I have confined this paper to a discussion of the skills associated with the successful management of conflict. March has identified four other analytical skills needed for managers, and these also merit consideration and reflection. They are:

(1) The analysis of expertise. The management of knowledge.
(2) The analysis of ambiguity. The management of goals.
(3) The analysis of time. The management of attention.
Each of these skills is related to the common tasks of managerial life; each involves a technology of analysis and thought. Each is essential to problem solving.

In closing, I would remind you of H.L. Mencken's comment that there is always an easy answer to every human problem... simple, plausible, and wrong. As you are all aware, the problems which deans of education face these days are far from easy. Nor are the solutions simple. No one strategy fits every problem. According to Richard Brautigan, "there are seductions that should be in the Smithsonian Institute, right next to the 'Spirit of St. Louis'." I urge you to keep Mencken's and Brautigan's comments in mind as you think about and try to apply decision-making theory to the problems of administration and research.
Many types of documents cannot be adequately abstracted using the informative style you have been practicing. Some lack the central point of view, activity, or sequence of events on which the informative abstract usually rests. Others consider too many topics or contain too many types of materials to be informatively abstracted without sacrificing that essential requirement of an abstract—that it reflect the entire scope of the document.

In these cases it is necessary to describe or represent the document itself, its subject matter, organization, and special features, rather than its ideas. Such abstracts are called indicative abstracts.

Typically, indicative abstracts include a statement of the scope and purpose of the document, its intended audience (if applicable), and a description of the document in its sequence. The ERIC Processing Manual describes what indicative abstracts for particular types of documents should contain. In addition, it provides the following guidelines:
(a) ...in an indicative abstract, the abstractor writes from the viewpoint of an informed but impartial reader and describes the contents and format of a document.

(b) An indicative abstract reports only what is discussed or included in the document, in what manner the information is presented, and if necessary, to whom the document is addressed. In short, the indicative abstract is a guide to the contents of a document.

Guidelines concerning paragraph structure and information density apply equally to indicative as to informative abstracts. Special instructions and cautions include:

(c) Use the passive voice in an indicative abstract to highlight the process of writing the document. For example, such words as "are included", "are discussed", "is presented", and "are reviewed" should appear only in an indicative abstract.

(d) The present tense is proper for an indicative abstract.

(e) The abstractor should avoid introducing his abstract with either "This report..." or "The purpose of this report (or document) is...." Abstracts in which most sentences end with "are discussed" and "are given" are similarly ineffective.

Indicative abstracts are easier to write than informative ones. Structure of the abstract stems directly from the structure of the document. Since the abstractor does not have to synthesize complex ideas, indicative abstracts can be written more quickly. It is easy to slide into the habit of writing indicative abstracts exclusively, or of beginning what are essentially informative abstracts with indicative sentences. Be on your guard.

Another pitfall of indicative abstracts is that indicative is sometimes equated with general. Actually, the economy and flexibility of the indicative style allow for great specificity and detail. You should cram as much hard information into an indicative abstract as an informative one.
It is possible to use the active voice in indicative abstracts. Many abstractors prefer to do so, as you will see in the discussion on the fifth document in the workbook. The dilemma arises over which is more boring—having all sentences begin with "This paper reviews...", "The second section examines...", "Appendices provide...", or having them end with "... are reviewed", "... is analyzed", "... are included in appendices". It is usually easier to arrive at a meatier opening in the passive voice:

Design and engineering requirements for six types of bird nests, with complete instructions for construction and maintenance, are provided in this document. Various types of twigs, grasses, and leaves are analyzed according to their strength, durability, heat retention, and drainage characteristics. Down and fur are compared as nest linings, and suggestions for obtaining fresh cat fur from the source are provided in an appendix.

A "This document..." opener in an active voice indicative abstract can be avoided by beginning with a dependent clause:

Intended for fledglings and new pairs, this manual describes materials, structural requirements and construction procedures for six types of nests. ...A concluding note warns of possible dangers in "borrowing" an existing nest when its owner is absent.

You will probably use the passive voice more often for indicative abstracts, reserving the active voice for documents with discrete sections or chapters (and of course for informative abstracts).

Before you go any further, make sure the distinctions between informative and indicative style, and active and passive voice are clear to you. Ask your supervisor for help if you need it.

Remember, the informative abstract summarizes the ideas:

The key to successful nest building is the proper selection of materials. Young pairs in their eagerness often make the mistake
of using the materials closest at claw, with tragic results for both parents and eggs. Strength and flexibility in basic structural twigs are essential...

The indicative abstract describes the document. Got it?

Instructions

A document suitable for an indicative abstract need not be read in its entirety, particularly if it has a table of contents, section headings, or other structural indicators. Examine "Bilingual/ESL Programs for Migrant Children" in the following order:

1. Read the Table of Contents carefully. Spend some time with it before you go on; compare the number of pages devoted to each major section and each subsection to get an idea about emphases and weighting for your abstract.

2. Skim the Introduction and the Summary and Conclusions, searching for a statement or purpose or intent. Jot down briefly any helpful statement you find.

3. Keeping an eye on the Table of Contents, begin to skim the body of the document. You need not take notes unless you wish to; the Table of Contents does that for you. Read topic sentences only, zeroing in on paragraphs that should be read completely.

Draft a topic sentence expressing the scope and purpose of the document. Take a good hard look at the title of the document first. Then, using the Table of Contents and referring to the body of the document for necessary explanation and detail, flesh out the rest of the abstract.
Before you go on to the indexing, take another look at the Introduction and the Summary. What is their relationship to the body of the document? Does the Summary really summarize the document? If the document contained only the Introduction, the Rationale section, and the Summary, what kind of abstract would you have written? There is a lesson here.

Use the Table of Contents as a helpful checklist for your indexing. The document considers many topics so think broadly rather than narrowly in your selection of indexable concepts. Focus on the amount of hard information given for each potential concept you consider. Try to limit yourself to about 15 descriptors.

**Characteristics of the Document Type**

The purpose of the document is stated with some clarity in two places: on the second page of the Introduction ("This monograph is concerned with the development of special programs for Spanish speaking migrant children.") and in the Summary ("...this monograph is intended to give these school systems [those with little experience in dealing with migrant children] some ideas with which to provide better educational opportunities for Spanish speaking migrant children"). You should have located these statements and have gathered that the document is essentially a guide for program planning and development.

While the document is not a step-by-step "how to do it" manual, it does outline for the program planner all the important aspects of bilingual and ESL programs that must be considered. It is representative of the many
documents you will encounter in your work that can be classified as "guides." Since this particular guide is intended for school personnel with limited prior experience in this area, it goes beyond the rudiments of a guide to familiarize the planner with the current status and problems of migrant education. Many of the author's own views are interjected (an informative abstract could easily be drawn from the preliminary and concluding matter), but the basic thrust of the document lies elsewhere.

Guides are intended for continuing reference. Usually they will have a table of contents or some other structural feature to facilitate use. Frequently they will include diagrams illustrating steps or methods and appended materials. They always require indicative abstracts.

What a Practiced Eye Will Look for in Such a Document

An experienced abstractor would have immediately focused on the Table of Contents, and then reviewed the Introduction and Summary to see if these three elements alone could constitute an adequate basis for abstracting and indexing the document. In many cases, though not in this one, these would be sufficient. An experienced abstractor would recognize that the Introduction and Summary did not parallel the Table of Contents, and move on to examine the body of the document.

If a table of contents were not present in the document, an experienced abstractor would look for other structural indicators that could substitute for one. Failing that, the abstractor would have to derive one of his own.
Parts of the Document on Which the Abstract Should be Based

The abstract should be based on the Table of Contents, amplified by material drawn from the body of the document.

Essential Features of the Content of the Abstract

The abstract must contain a statement of the overall scope and purpose of the document, and it must itemize all the program considerations that are covered. The materials in the appendices should also be mentioned. Extensive space should not be devoted to the author's introductory and concluding recommendations at the sacrifice of these essentials.

Sample Abstracts

The following abstracts are basically the same. One places more emphasis on the exact sectional structure of the document, but both follow the document's sequence. There is really only one way to abstract this document; your abstract should be similar.

Sample Abstract #1

The development of bilingual education and ESL (English as a Second Language) programs for Spanish speaking migrant children is discussed in terms of the children's special social, physical, and academic needs. Definitions of both types of programs, judicial and legislative support, and the relevancy of such programs to migrant children are reviewed. Among the program planning considerations discussed are pre-program assessment of children's skill levels, age range, and intended length of stay in the program, selecting a program model, establishing instructional goals, necessary attributes of instruction; staff, establishing parent and community involvement, and arranging for supportive health and social services. Strategies for ESL
and bilingual classrooms are described and types and sources of instructional materials are cited. The importance of on-going diagnosis and evaluation of student progress, bicultural enrichment activities, and program evaluation are emphasized. Appendices include a list of colleges and universities offering bilingual education training, and a list of bilingual curriculum and training resource centers.

Sample Abstract #2

Essential considerations for planning and implementing comprehensive bilingual education and English as a Second Language (ESL) programs for Spanish speaking migrant children are presented to assist schools in developing programs to meet their special needs. Following definition of both types of programs and a discussion of legislative support, six aspects of program planning are considered: pre-program assessment of migrant student and community characteristics, selection of a program model (intensive ESL, pull-out ESL, ESL support type, transitional bilingual, maintenance bilingual, and supplementary), development of instructional goals, staff training, involvement of parents and community, and coordination of support services. Classroom concerns are discussed next, including strategies for both bilingual and ESL classrooms and instructional materials required for each. Ways of meeting individual students' cognitive and affective needs are then reviewed, focusing on on-going diagnosis and evaluation of student progress and provision of bicultural enrichment activities. A brief note on program evaluation is followed by recommendations for improvement of migrant programs nationally. A list of colleges offering bilingual education training and a list of bilingual education centers are provided in appendices.

In the first abstract, following the topic sentence, one sentence is devoted to each major section of the document. The sentences essentially list each of the subsections. In the second abstract, each sentence begins by representing the section heading and then lists the subsections.

The second abstract is more interesting. By combining the description of some sections into one sentence, rather than following the strict section/sentence order of the first abstract, the second abstract manages a more varied sentence pattern. The first abstract is perfectly satisfactory.
however; it is clear, accurate, and includes all the important points covered in the document. (Note: If your abstracts are clear, accurate, complete, but dull, do not spend a lot of time striving for stylistic perfection. Your productivity is much more important than deathless prose. Tell yourself that in the majority of cases, a dull abstract more faithfully reflects the literature.)

Indexable Concepts

Your major descriptors should represent the overall topic of the document. There was little disagreement among our experienced abstractor/indexers about the selection of major terms.

Bilingual Programs—BILINGUAL EDUCATION is the best choice among the available descriptors. The other "bilingual" terms are not coextensive with the entire scope of the document. BILINGUAL STUDENTS may be appropriate as a minor descriptor (though our experienced abstractor/indexers did not use it), but not as a major; the document does not identify all the children as bilingual. BILINGUALISM is both too broad and too off-target.

ESL—You should have assigned ENGLISH (SECOND LANGUAGE) as a major descriptor. If you assigned ENGLISH and SECOND LANGUAGES, you violated the rule about level of specificity. SECOND LANGUAGE PROGRAMS is applicable, but it offers less precision than ENGLISH (SECOND LANGUAGE) and appears more suitable as a minor descriptor. SECOND LANGUAGE INSTRUCTION is a less suitable alternative for this particular document; SECOND LANGUAGE LEARNING is even more off-target.

*BILINGUAL PROGRAMS would be more precise; it and BILINGUAL MATERIALS are considered likely new descriptors in late-1981 or 1982.
Spanish Speaking—All our abstractor/indexers but one felt this concept warranted treatment as a major (the one used it as a minor). The Thesaurus provides an exact equivalent descriptor, SPANISH SPEAKING. Only two of the six abstractor/indexers, by the way, assign MEXICAN AMERICANS (as a minor); the document focuses more closely on the language group than on an ethnic group.

Migrant Children—The Thesaurus says 'Migrant Child Education, use MIGRANT EDUCATION.' MIGRANT EDUCATION is therefore more specific than MIGRANT CHILDREN, but the use of either or both terms is OK here. Only one needs to be majored (both as majors would cause unnecessary redundancy in the printed subject indexes).

Program Development—This major concept is less obvious than the others, but you should have gathered that PROGRAM DEVELOPMENT is what the document is about.

In the selection of minor concepts, things get trickier. The document has 18 major sections and subsections, all of which may represent indexable concepts. Even assuming that each could be represented by a single descriptor, this is too many. The question, then, becomes one of weighting in the document. How much emphasis is placed on the various parts in terms of the space devoted to them? First, you should have considered the major sections. The largest number of pages is given to pre-program assessment, the program models, parent and community involvement, and instructional materials.
Pre-Program Assessment--There is no way to clearly translate this concept into descriptors. The component concepts COMMUNITY CHARACTERISTICS, STUDENT CHARACTERISTICS, etc., do not warrant indexing at the expense of other important concepts in the document.

Program Models--MODELS should be assigned.

Parent and Community Involvement--Here the indexer has to choose among several potentially appropriate descriptors. PARENT PARTICIPATION most reflects the emphasis in the document, but several indexers selected COMMUNITY INVOLVEMENT. FAMILY INVOLVEMENT is equally appropriate to the meaning intended, but most indexers followed the author's lead here.

Classroom Concerns--This is a label, not really a concept. A few indexers attempted to characterize the section by assigning CLASS ORGANIZATION or INSTRUCTION DESIGN, but most did not. Few assigned INSTRUCTIONAL MATERIALS, either.

Individual Student Needs--STUDENT NEEDS is an RT to INJIVIDUAL NEEDS, and although both are applicable to the document, the more precise term, STUDENT NEEDS, should be selected. Most indexers felt the broader category of STUDENT NEEDS should be indexed rather than trying to capture the cognitive or affective concepts. However, one student characteristic, BICULTURALISM, is given sufficient space in the document and should be indexed.
Only half of the indexers used the descriptor

PROGRAM EVALUATION. Little is actually said about it in the document.

Legislation--This concept, from the Rationale section, was indexed by

half of the indexers. FEDERAL LEGISLATION is the most specific
descriptor.

Mandatory Educational Level--Though the document does not explicitly

specify an educational level, most indexers felt this was presumed
in the document and should be indexed by the descriptor representing

K-12; ELEMENTARY SECONDARY EDUCATION.

Many other descriptors were assigned by one or two indexers, including

ANCILLARY SCHOOL SERVICES, TEACHER QUALIFICATIONS, DEFINITIONS, CULTURAL
DIFFERENCES, etc. In a document with so many nearly equally weighted concepts,

not all of which can be indexed, some arbitrary choices will be made. At

this level, however, the indexer is dealing with concepts representing only

a page or two of information. It is probably better to limit the indexing
to the broader and more encompassing concepts.

Pub Type Code

This document is a guide for school planning and development. Pub Type
code 055 is appropriate.
<p>| CONCEPTS                   | MAJOR                                      | MINOR                                      | JUSTIFICATION                                           | TOO BROAD/OFF-TARGET                                               |
|----------------------------|--------------------------------------------|--------------------------------------------|---------------------------------------------------------|******************************************************************|
| LANGUAGE CONCEPTS          | *ENGLISH (SECOND LANGUAGE)                 | *SPANISH SPEAKING                          | MAJOR FOCUS OF DOCUMENT                                  | LANGUAGE OF INSTRUCTION                                          |
|                            | *BILINGUAL EDUCATION                      |                                            | &quot;SECOND LANGUAGE INSTRUCTION&quot; IS LESS PRECISE           | SECOND LANGUAGE LEARNING                                          |
|                            |                                            | BILINGUAL EDUCATION                       |                                                         | LANGUAGE SKILLS                                                  |
|                            |                                            |                                            |                                                         | NON-ENGLISH SPEAKING                                              |
|                            |                                            | SECOND LANGUAGE PROGRAMS                  |                                                         | ENGLISH                                                          |
|                            |                                            |                                            |                                                         | SECOND LANGUAGES                                                 |
| POPULATION CONCEPTS (BROADLY) | *MIGRANT EDUCATION                      | MIGRANT CHILDREN                           | WEIGHTING OF &quot;MIGRANT&quot; TERMS COULD BE REVERSED          | COMMUNITY ROLE                                                   |
|                            |                                            | PARENT PARTICIPATION                      | &quot;COMMUNITY INVOLVEMENT&quot; ALSO OK                         | DISADVANTAGED YOUTH                                              |
|                            |                                            |                                            |                                                         | MEXICAN AMERICANS                                                |
|                            |                                            |                                            |                                                         | BILINGUAL TEACHERS                                               |
| PROGRAM CONCEPTS           | *PROGRAM DEVELOPMENT                      | MODELS                                    | IMPORTANT SECTION OF DOCUMENT                           | TEACHING METHODS                                                 |
|                            |                                            |                                            | &quot;CLASS ORGANIZATION&quot;,&quot; &quot;ANCILLARY SCHOOL SERVICES&quot;,&quot; &quot;INSTRUCTIONAL MATERIALS&quot; WOULD ALSO BE OK | CLASSROOM ENVIRONMENT                                            |
|                            |                                            |                                            |                                                          | INDIVIDUALIZED PROGRAMS                                          |
|                            |                                            |                                            |                                                          | PROGRAM CONTENT                                                  |
| OTHER                      | BICULTURALISM                              | FEDERAL LEGISLATION                       | &quot;TEACHER QUALIFICATIONS&quot; ALSO OK                         | RELEVANCE (EDUCATION)                                            |
|                            |                                            | STUDENT NEEDS                             | &quot;DEFINITIONS&quot; ALSO OK                                    | EDUCATIONAL OBJECTIVES                                           |
|                            |                                            |                                            |                                                          | COGNITIVE DEVELOPMENT                                            |
|                            |                                            |                                            |                                                          | AFFECTIVE BEHAVIOR                                                |
|                            |                                            |                                            |                                                          | EVALUATION                                                       |
|                            |                                            |                                            |                                                          | SELF ESTEEM                                                      |</p>
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**GUIDE FOR SCHOOL PERSONNEL FOR PROGRAM PLANNING AND DEVELOPMENT**
BILINGUAL/ESL PROGRAMS FOR MIGRANT CHILDREN

by

BETH ARNOW

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March 1977

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INTRODUCTION

As the United States grew from a rural economy to an industrial economy, the shape of agriculture changed. Many small farms that were once family owned and operated were swallowed up. As agri-business grew, the need for cheap, temporary labor grew, and thus, migrant streams came into being. In the east, the migrant stream developed out of the share-cropping system, and has been traditionally Black, with a small number of poor Whites. Blacks, historically discriminated against, often found that the low paying temporary farm work was the only type of employment they could obtain.

In the western part of the U. S., the search for cheap labor focused primarily on immigrant groups. After the completion of the transcontinental railroad, many Chinese were recruited as farm laborers in California. Later, the Chinese were replaced by Japanese and Filipino workers. This supply of labor was limited in 1924 when Congress passed the Immigration Act excluding Orientals.

Mexicans began to enter this country in large numbers in the first decade of the twentieth century. Coming from an agrarian society, they were ideal as farm laborers. During the second World War, labor was in such short supply that Congress made an informal agreement with Mexico to accept their workers for agriculture. The bracero program was formalized in 1951 to control the flow of Mexican labor into this country. The program was terminated in 1964 because Mexican workers took nearly $100 million in U. S. dollars back to their homeland each year.
During the years from the early part of the century to the 1960's, many of the workers who came stayed and made this country their home. The Senate Subcommittee on Migratory Labor set the migrant population at one million in 1969. The Migrant Research Project completed by the Manpower Evaluation and Development Institute in 1970 found that this migrant population was 75 percent Mexican American and 19 percent Black, with a remaining 6 percent Native American, Puerto Rican, and others. There are no current figures concerning the numbers of Spanish surnamed and/or Spanish speaking migrant workers, but estimates range from 70 to 85 percent.

The patterns of the migrant streams have changed in recent years. Because of increased job opportunities, many Blacks have been able to drop out of the eastern stream. Migrant families from the Rio Grande Valley now move to states such as Florida and New York and other eastern states, as well as to the western agricultural states. A recent survey by the state of Florida indicated that 75 percent of the migrant children in Collier County, Florida, are Mexican American. The Spanish speaking migrant now works and lives in 48 states.

This monograph is concerned with the development of special programs for Spanish speaking migrant children. Because these children are migratory, they have special social and physical needs, and programs developed for them cannot focus solely on academic needs and classroom activities. Comprehensive programs must consider and, if possible, include the family and the community in order to meet the needs of the children as completely as possible.

The fact that Spanish speaking migrant children have difficulty speaking and understanding the English language both affects, and, in many
cases, determine the implementation of migrant programs. For this reason, this paper cites much of the literature currently available in bilingual education, and attempts to point out that which is relevant to Spanish speaking migrant children. The learning process of a Spanish speaking migrant child is not much different from the learning process of a Spanish speaking non-migrant child, although studies have shown that there may be significant differences in learning processes between children of different cultural groups.

There are many difficulties in implementing English as a Second Language (ESL) and bilingual education programs for migrant children. Little by little, through implementation of such programs and further research, better comprehensive services can be developed for Spanish speaking migrant children in the future. Since bilingual education of migrant students has only become important nationally within the past ten years, much work remains yet to be done in program development.
RATIONALE

Definitions

Children of limited English speaking ability have been defined as those "who were not born in the United States or whose native language is a language other than English, and (children) who come from environments where a language other than English is dominant... and by reason thereof, have difficulty speaking and understanding instruction in the English language" (United States Commission on Civil Rights Clearinghouse, 1975: p. 196). This definition certainly includes large numbers of migrant children.

There are basically two types of instructional programs that can be utilized with these children—bilingual education and English as a Second Language (ESL). The two terms are often confused, and thus are carefully defined here.

According to the Bilingual Education Act of 1974, a bilingual education program is one in which there is "instruction given in, and study of, English, and, to the extent necessary to allow a child to progress effectively through the educational system, the native language of the children of limited English-speaking ability, and such instruction is given with appreciation for the cultural heritage of such children, and with respect to elementary instruction shall, to the extent necessary, be in all courses or subjects of study which will allow a child to progress effectively through the educational system" (PIL. 93-380). More simply stated, bilingual education makes use of two languages to instruct a child who has only
a limited command of English so that he can progress effectively. The amount of time spent in each of the two languages depends on the child and his skills in each language. Bilingual education, as defined by law, also includes bicultural education, which means that bilingual programs must be sensitive to the child's cultural heritage.

An ESL program is a planned instructional program for teaching listening, speaking, reading, and writing in English to children whose native language is not English. The ESL program methods used to teach foreign language education, focuses on the sound, structure, and vocabulary of the English language. ESL requires long periods of intensive instruction. Although it is an important component of any bilingual program by itself, ESL is not bilingual education, since bilingual education laws require that children be taught partly in their native language.

Judicial and Legislative Support

In recent years bilingual education and ESL have received support from several different sources. The first Bilingual Education Act of 1967 allocated monies for the development of bilingual demonstration programs, and federal support has been increasing since that time. The Lau vs. Nichols Supreme Court decision of 1972 gave further support to the concepts of bilingual education and the teaching of English as a second language. In the court decree, Justice Douglas stated: "There is no equality of treatment merely by providing students with the same facilities, text books, teachers, and curriculum; for students who do not understand English are effectively foreclosed from any meaningful education" (Supreme Court Opinion 72-6520, p. 3). The Court did not specify any remedy, but stated
that ESL and instruction in the child's native language will help migrant students receive this "meaningful education."

The Equal Educational Opportunity Act of 1974 focused on the responsibilities of school systems and decided upon and defined actions which effect a denial of equal educational opportunity. The Act states that "the failure by an educational agency to take appropriate action to overcome language barriers that impede equal participation by its students in its instructional program (United States Commission on Civil Rights Clearinghouse, 1975: p. 197) constitutes a denial of equal education opportunity." The growth of bilingual education and ESL programs has received further impetus from other legislative and judicial decisions at the federal and state levels.

Relevancy to Migrant Children

According to a recent definition, a "'currently migratory child' is a child who has moved with a parent or guardian within the past twelve months across a school district boundary or boundaries in order that a parent, guardian or member of his immediate family might secure temporary or seasonal employment in an agricultural or fishing activity" (Federal Register, July 8, 1975: p. 28624). Slightly more than half a million of these children are enrolled in the Migrant Student Record Transfer System, and there may be half a million more children who can be defined as migrant who are not carried on these rolls. If 75 percent of these children are Spanish speaking (a conservative estimate), there are at least 375,000 enrolled migrant children and as many as 375,000 non-enrolled migrant children who could benefit from bilingual or ESL instruction. These
children have special needs because of their mobility, and special needs because they don't speak much English. Too often in the past they have been looked at as "problem children" only because their needs are different. Perhaps the best example of this "problem" point of view appeared in the May, 1975 Education Briefing Paper on migrant children which stated: "To make matters worse, many of them can't speak English" (p. 1).

As shown in the past, a regular school program cannot meet the needs of these Spanish speaking migrant children. Without a nationally coordinated migrant program, local educational districts cannot provide the educational continuity these children so desperately need. And without well organized ESL and bilingual education programs, these children will effectively be denied equal educational opportunity.

An agency at the federal level needs to assist states and local school districts in providing educational continuity. Since migrant children do not remain within fixed geographic boundaries, such as school districts and states for long periods of time, and since they may not attend school at all for weeks at a time, the federal government must take the responsibility for assuring that these children receive relevant and continuous educational opportunities. Since most migrant children are Spanish speaking, ESL and bilingual education must continue to be important thrusts at the national level.

States that share the same children need to work together in order to provide better educational services. In many cases, state educational agencies can provide strong leadership in the development of local educational programs. State agencies can take the initiative in providing training and technical assistance to local school districts which do not
have the resources to serve their Spanish speaking children effectively. State migrant personnel can also be instrumental in providing materials for local programs. Successful instructional programs are most likely to result when personnel at all levels work together to develop them.
PROGRAM PLANNING CONSIDERATIONS

Pre-Program Assessment

Joshua Fishman and John Lovas, in the article, "Bilingual Education in Sociolinguistic Perspective" (1970), stated that realistic societal information is needed in order to establish realistic educational goals. In other words, any successful educational program must meet the needs of the community and generate community support.

Making a pre-program assessment of migrant communities' and students' needs may be particularly difficult to accomplish. Often program administrators do not know when children will arrive, where they are from, or what their needs are. Determination of community needs and desires is complicated by the fact that migrants live in more than one community in the course of their work. Not only do these factors frustrate planning at the local level, they undoubtedly contribute heavily to the rather fragmented education migrant children currently receive.

While there are no easy solutions to these problems, some programs have made attempts to solve them. In places where the pattern of migrant movement is fairly stable, personnel at the receiving site can communicate with personnel in the home base state in order to conduct a pre-program assessment. Questions that need to be asked include:

- How many limited English speakers live within the migrants' home base community?
- How many bilingual persons are in the community?
- What are their skill levels in each language?
Which languages are increasing or declining within the total home base community?

Are students moving into or out of the home base community?

What are the community's attitudes toward English as a second language and/or bilingual education?

What are the students' levels of subject matter achievement?

To obtain enough information to answer these questions, interstate cooperation is a must. A program that has children for only a short period of time must interact with the home base location in order to know what the children and their community need.

Once all the basic community information is gathered in the pre-program assessment, there are still several critical factors which affect model selection. These factors concern general student characteristics and program administration as related to funding.

**Grade and Age Level.** Grade levels of students must be carefully considered in model selection. A group of recently immigrated high school students who do not speak English will certainly have a more urgent need for an intensive ESL program than a group of kindergarten children who do not speak English. Pre-kindergarten children who do not speak English will probably have a greater need for bilingual education to further develop concepts they have already established in the home language and to foster home-preschool continuity.

**Length of Stay.** The students' intended length of stay in the program is another critical factor. A program that has students for six months of the year would have more options for model selection than a program that has students for shorter periods of time. This time factor may not be as important if the receiving site has coordinated with the home base site to
minimize differences in instructional procedures and materials. The length of time needed to introduce a child to an instructional situation versus the total length of time the child will be in the program must be analyzed.

Integration with or Segregation from the Regular School Program. The fact that Title I Migrant monies may not be used to supplant regular school functions and services has a great bearing on model selection and program implementation. A program operating within a school system that only releases migrant children for an hour a day for special tutoring, for example, cannot expect to offer those children a full bilingual program under the auspices of the migrant program. A supplementary migrant program must focus on the special instruction which is not available to the children in the regular classroom. Migrant personnel working under such restricted conditions might encourage local school personnel to provide a bilingual program with other funds.

Whether or not limited English speaking migrant students are integrated into classrooms with native English speaking students (migrant or non-migrant) will affect the rate at which they learn English. A small group of limited English speaking students exposed to a large group of English speaking students will tend to learn English much faster than a large group of limited English speaking students exposed to a small group of English speaking students. It is natural to interact only with those who speak one's native language, especially for older students and adults, but such interaction inhibits their ability to learn the second language.
Selecting a Program Model

Several researchers and practitioners have developed models and typologies for ESL and bilingual education. Fishman and Lovas (1970) defined their program types in terms of differences in community and school objectives. They arrived at the four broad categories of: (1) transitional bilingualism, (2) monoliterate bilingualism, (3) partial bilingualism, and (4) full bilingualism.

Bruce Gaarder, in "Organization of the Bilingual School" (1967, pp. 110-120) does not consider transitional bilingual education to be true bilingual education. The factors he considers in his typology are: the number of student linguistic groups, the particular language added, mixing and/or segregation of classes, and time allotted to and treatment of the languages in the curriculum. He gave examples and descriptions of six of the eight organizational patterns.

In "A Typology of Bilingual Education" (1969), William F. Mackey developed a typology of 90 different models based on the languages used in the home, in the school, in the area, and in the nation. He further characterized curriculum in terms of transfer or maintenance, direction (acculturation or irredentism), distribution (different or equal), and change (complete or gradual).

Unfortunately, many of these models and typologies are not appropriate for describing programs for migrant children for various reasons. First, migrant children are often not in one school long enough to establish the educational continuity which is an integral part of many of these models. Second, the restrictions placed on the use of Title I Migrant monies by the
supporting legislation does not always permit migrant programs to be fully integrated into the regular school program. Often such full integration can only be accomplished through the use of different funding sources.

This section attempts to isolate several different ESL and bilingual education models which can be implemented for migrant children. Each is described and its advantages and disadvantages discussed.

ESL Models
Intensive ESL

An intensive ESL program as described by Mary Finocchiaro (1969) is one designed specifically for English oral language development for limited English speaking students. It is not the same as a language development program for students who already speak English, as the program makes a conscious effort to teach students the features of the English sound structure, and vocabulary systems. The program does not encourage use of the students’ native language. Limited English speaking students are isolated from native English speaking students for the major part of the day for intensive ESL instruction.

An intensive ESL program could be used in a summer program to teach migrant students as much English as possible before the regular school year (which should include follow-up instruction). Intensive ESL may be especially useful with small groups of older migrant students who may not be in school much longer, and thus need to obtain as many English skills as possible in a short time span. This program could also be used during the regular school year for migrant pre-schoolers to prepare them for a
monolingual English elementary school. Because children given this program would face a radical change in environment, extreme care should be taken to maintain a strong relationship between home and pre-school to provide the children with the proper emotional support.

Probably the main disadvantage of an intensive ESL program is that it does isolate limited English speaking migrant students from important contact with native English speaking students. This peer interaction is an important learning tool that is often forgotten in education. Such segregation can cause fragmentation among student populations unless a special effort is made to bring them together in other activities.

Pull-Out ESL

In the pull-out ESL model as described in A Better Chance to Learn: Bilingual-Bicultural Education (United States Commission on Civil Rights Clearinghouse, 1975: p. 81) the student receives instruction for a portion of the day from an ESL teacher and participates in the regular English classroom instruction for the rest of the day. Such a program can be valuable for a migrant student who has enough skill in the English language to benefit from regular instruction, but who needs additional work in areas such as vocabulary development. Before assigning a migrant child to a pull-out ESL program, program directors must be sure that the child does indeed have enough skill in English to benefit from regular English classroom instruction. A pull-out ESL program is also an appropriate follow-up for migrant students who have already been in an intensive ESL program. The fact that migrant students are with their native English speaking peers for the major portion of the day undoubtedly facilitates their learning of English.
ESL Support Type Component

The concept of an ESL support type component was introduced by Muriel Saville-Troike (1974). An ESL support type component is included within the regular classroom instruction, and provides migrant students with necessary English language skills, as well as the opportunity to use these skills in a real situation. A professional or a trained paraprofessional could provide support type activities for English as a Second Language and integrate them into the regular content areas. This approach would also allow for a great deal of individualization for limited English speaking migrant students.

The main advantage of an ESL support type component is that the child learns a certain amount of subject matter as he receives language instruction. Furthermore, integration of limited English speaking migrant students with native English speaking students promotes their learning of English.

Bilingual Models

Transitional Bilingual Model

In transitional bilingual programs, the student's native language is used to teach subject matter while the student is in the process of learning English. The native language is used as a tool to teach English. Title VII legislation and most state bilingual education laws mandate transitional programs. Several state laws mandate that students be enrolled in a transitional program for a period of three years, or until they are proficient in English.

Transitional bilingual programs are certainly a step forward for states in which it was previously illegal for a language other than English to be used in the classroom. Using the student's native language allows
him to further develop skills he has already begun to learn while he is learning English. It helps develop strengths the migrant student brings from home, and thus promotes a stronger home-school relationship.

Because of the length of time necessary to effect a transition from Spanish to English usage, migrant students must be in the program for a substantial span of time, and there must be a high degree of enrollment carry-over from year to year. The effectiveness of a transitional bilingual program is increased through strong coordination between the home base site and the temporary site. One such program has been successful in providing the same curriculum, the same support services, and even the same staff while the children migrate (Bilingual Mini-School Tutoring Project, 1972-75). Accomplishing this sort of coordination is by no means an easy task, but it is possible.

Maintenance Bilingual Education

Maintenance bilingual programs encourage the student to develop and maintain both languages and encourage academic growth in both languages. To be most effective, maintenance bilingual programs must be continuous, pre-K to post-secondary.

Some bilingual educators feel that maintenance bilingual education is an ideal toward which committed professionals should be reaching. They point out society's need for individuals who are fully bilingual. Transitional bilingual programs tend to phase out non-English language, although it may be considered as important as English. The disagreements between those who favor maintenance education versus those who favor transitional bilingual education are based on involved sociolinguistic, economic, and
political factors which will probably remain entangled for years to come.

Maintenance bilingual programs have many of the same operational requirements as transitional bilingual programs, except that they are continued over a much longer period of time. Migrant students in these programs must be at one site for a substantial amount of time, or else there must be very strong cooperation between the home base site and the receiving site. A maintenance bilingual program could best be implemented in the home base site to which a large majority of the same families return each year and in which loyalty to the mother tongue is strong.

Supplementary Model

A supplementary bilingual model (Models of Bilingual Education, Spring, 1972) can be used to give migrant students partial bilingual instruction. This model requires that limited periods in the school day be set aside for instruction in the native language. If students are in need of ESL instruction, it is given at a separate time. The supplementary bilingual model can be used in conjunction with any of the ESL models.

Many bilingual educators do not consider such a supplementary program to be a true bilingual education program. Nevertheless, it is used by some school systems which for various reasons have not been able to implement full bilingual programs but which wish to provide limited English speaking children with some instruction in their native language. Because of restrictions placed on the use of Title I Migrant monies, the supplementary bilingual program sometimes provides the only means by which a small group of Spanish speaking migrant students can receive native language instruction.
instruction within a large non-bilingual school system. The supplementary bilingual program can reinforce concepts the migrant student learns in the regular classroom as well as improve his self-concept. For maximum effectiveness, there must be close contact between the regular classroom teacher and the native language arts teacher.

Establishing Instructional Program Goals Based on Model

Administrators, staff, and community must define the goals they hope to achieve within given time limits in order to determine which bilingual and/or ESL model they wish to implement.

Once they have selected an appropriate program, program administrators decide how to pace and measure student growth in language proficiency in both the subject areas and the affective areas. The staff must determine students' initial skill levels and decide upon valid ways of measuring student achievement. Student growth is most often measured in terms of tests, checklists, inventories, etc., but other factors, such as increased attendance and decreased drop-out rates, can be very valid measures of program success.

Many programs establish goals for themselves in areas other than instruction. As program managers become more sophisticated, they establish measurable objectives for themselves in management. Objectives can also be established in the areas of curriculum materials development, staff development, parental involvement, and support services. The Pasco, Washington project reports (1972-75) give excellent examples of how to develop program objectives to meet program goals.
Instructional Program Staffing to Meet Program Goals

Unfortunately, instructional goals are more often determined by the skills the instructional staff can teach rather than the skills the children need. Because of the shortage of qualified ESL and especially bilingual teachers, careful staffing for migrant programs is critical. Although program administrators establish overall goals for a program, classroom teachers and aides have the responsibility for establishing more specific goals and objectives for individual migrant children.

The administrative staff must have a clear understanding of what skills are necessary for the migrant teaching staff to meet the overall program goals. Mary Finocchiaro, in Teaching English as a Second Language (1969), described the required competencies for ESL teachers. Some of the competencies she listed were:

- insight into the students' linguistic and cultural background;
- indepth knowledge of the features of the English sound, grammar, vocabulary, and cultural systems;
- skills in the methodology of teaching English as a second language;
- skills and techniques in grouping;
- skill to utilize and develop instructional materials consistent with program objectives and students' needs;
- ability to diagnose and evaluate individual student progress; and
- ability to provide a positive classroom environment and develop positive self-concepts.

In addition to this list, ESL teachers of migrant children should have a good understanding of the migrant child and his lifestyle. The ability to communicate with the migrant parent is also an important skill.
At a conference sponsored by the Center for Applied Linguistics, bilingual educators proposed guidelines for the preparation and certification of bilingual bicultural education teachers (The Linguistic Reporter, October, 1974). According to this conference, migrant program administrators should consider the following areas in selecting staff:

personal qualities;
language proficiency;
knowledge of linguistics;
knowledge and skills in cross-cultural settings;
skills in instructional methods;
skills in curriculum utilization and adaptation;
skills in assessment;
skills in school-community relations; and
experience in supervised teaching.

Once the administrators of a migrant program have defined the staff skills necessary to meet their program goals, they can interview potential staff members. The classroom staff should include both professionals and paraprofessionals. Very rarely, if ever, will program administrators be able to assemble a staff with all the required competencies. A careful inventory must be taken to ascertain what skills the staff members have and what skills they need.

As the teaching staff's skills and competencies are assessed, a program of preservice and inservice training can be planned to meet their needs. It is at this point that state bilingual and migrant staffs, local universities, and outside consultants can be useful. Training goals and objectives should be established by teacher trainers skilled in the areas of migrant
education, bilingual education and/or ESL, in conjunction with classroom staff. Classroom personnel often know their own needs far better than anyone else.

Many universities have ESL teacher training programs, and a growing number of universities offer training in bilingual bicultural education from the aide level to the doctoral level (see Appendix A for a list). The Training and Resource Centers funded through Title VII also have technical expertise in these areas (see Appendix B for list). Personnel at these institutions can be utilized to structure training programs particularly relevant to the needs of teachers of migrant children.

A series of manuals for teacher training entitled New Approaches to Bilingual Bicultural Education (1974) has been developed by Manuel Ramirez, P. Leslie Herold, and Alfredo Castaneda. These manuals deal with theories of bilingual bicultural education, theories of cognitive learning styles of Mexican American children, and ways of implementing these theories in the classroom. The booklets could greatly assist a migrant program to establish its own structure for staff training.

Parent and Community Involvement

Parent and community involvement in planning a migrant program should begin before the staff is selected. Parents and communities should be involved with pre-program assessment and successive phases of planning, implementation, and evaluation. Migrant parents and community members should be consulted on policy and decision making and on setting program goals and objectives.
Unfortunately, migrant parents are frequently not in the community when most of the planning is done. The typical migrant workday of up to fourteen hours leaves most migrant parents with very little time in which to involve themselves in school programs. Still, effective communication with parents while they are still in the home base state can sometimes increase parent participation in decision making. Migrant program directors are encouraged to talk with community leaders who may themselves persuade parents to become involved with the program.

The La Grulla - Ephrata program, which is a cooperative effort between the states of Texas and Washington, has developed an innovative technique for involving parents (Bilingual Mini-School Tutoring Project, 1972-75). All migrant parents or family members who give time to the program receive hourly payments in the form of vouchers. Their activities range from working with students in the classroom and assisting with special field trips to building shelves and painting, etc. The Parent Committee decided that all money earned through working in the program would be donated to a special fund which is controlled by the committee. To date, the funds have been used to make emergency loans to families, to buy playground equipment, and for special holiday parties for the children and families. Thus, the money invested in parent involvement has benefited the program in many ways. Other programs have encouraged parent involvement by giving one free hour of babysitting for each hour worked in the program.

Not only should migrant parents be involved in their children's education, but also in educational programs for themselves. Parent education programs must be carefully planned to insure that they do reflect the needs and desires of migrant parents and are convenient for them to attend. Adult
Educational programs can also be extended to include older teenagers. Some such possible programs include ESL classes, high school equivalency (GED) or consumer education classes. To involve the migrant parents further in their children's education, a toy lending library could be implemented. This type of program would not only provide toys to families, but would also teach parents how to play with their children to promote their cognitive and psychomotor development. Previously successful programs have included nutrition education classes for parents. Such classes teach migrant parents how to prepare nutritious inexpensive dishes as well as the basic concepts of nutrition. A well-planned adult migrant program might stress the cultural food preferences of the parents and introduce new but inexpensive "American" dishes.

Finally, parents should be employed as instructional personnel and support staff whenever possible. Parents on a migrant staff provide a most important link between school and community. Furthermore, parents who assume jobs in instructional programs may no longer need to work as migrants. And as migrant children begin to see community parents in the classroom, they may become more aware of job opportunities outside the migrant stream.

The permanent residents of the host community should be involved as much as possible in migrant programs. The cooperation of the grower or farm manager can be most important. Such permanent residents must be convinced that the advantages of a migrant program for children outweigh possible unpleasant consequences for themselves. Involving permanent community members in the program can do much to break down traditional barriers between the host community and the migrants.
Support Services

Support services must be an integral component of a migrant program. A child who is not healthy and does not have a well-balanced diet will not learn well in the classroom. Before the migrant children arrive, contacts for support services must be made, and a file listing available services must be started. A plan for conducting the child and family needs assessments for health and social services and for providing follow-up services should be developed and person(s) responsible for each aspect should be designated. The Migrant Student Record Transfer System should provide the basic medical record keeping system, but each program will need its own social services record keeping system.

General arrangements for medical and dental check-ups must be anticipated. Special consideration must be given to locating either support services personnel who can speak the language of the students and the parents or staff who can translate. A bilingual staff may be useful in social service areas such as food stamps, Medicaid, and possibly housing.

Food services must also be planned before the students arrive. Many programs have made special efforts to incorporate the students' ethnic foods into the food services program. A parent advisory committee can provide innovative ideas for food services.
CLASSROOM CONCERNS

The program staff must decide how to organize the classroom to meet the program goals and the needs of individual migrant students. The program model selected will do much to structure the classroom program and schedule. The basic strategies for ESL and bilingual classrooms are discussed in this section.

The ESL Classroom

In an ESL support type program, the bilingual instructor works in the classroom alongside the regular classroom teacher. While the classroom teacher is carrying out regular activities, the bilingual instructor assists limited English speaking students in understanding the concepts presented as well as in gaining English second language skills. The teachers plan classroom activities together.

Teachers must decide how much time will be devoted to ESL activities each day. Time spent on ESL should depend largely on the students' ages and attention spans, as well as upon how much they could learn informally from native English speaking students in non-academic situations such as physical education, art, music, etc.

Listening and speaking are the skills emphasized for beginning ESL students and for younger students at any proficiency level. It should be emphasized that placing a limited English speaking student in a remedial English language arts program primarily designed to teach reading does very little to teach the child English. Learning to read is a complicated
task, and a child cannot do it well unless he has good listening, comprehension, and speaking skills.

Children needing ESL instruction will be at a variety of skill levels, and will probably need to be grouped for instruction. Careful grouping by skill rather than age level will make the ESL teacher's task much easier.

The Bilingual Classroom

If a school system selects a supplementary bilingual program, instruction in the native language will be given during a set aside portion of the day, usually by a teacher employed specifically to teach migrant children. The regular classroom activities will remain fairly much the same, although the supplementary classes should be coordinated with the regular classroom.

In both the maintenance and the transitional bilingual programs, classroom schedules and organization must be structured to provide children with exposure to and practice in both languages. Some programs recommend that language use should not be structured and that there should be free alternation of languages. Specialists in child language acquisition generally disapprove of this practice, saying that languages should definitely be kept separate so children will not confuse the two. These researchers feel that free alternation of languages will result in one "mixed language" instead of two independent language systems.

There are various ways of separating the two languages in the classroom. One alternative is to separate languages according to subject matter; for example, language arts and social studies may be taught in Spanish, math and science in English. A second alternative is to divide language use by time; for example, in the morning Spanish is used, in the
afternoon English is used. A third alternative, which can be very appropriate for a team-teaching situation, is separating the languages by teacher; e.g., the children speak English with Ms. Smith and Spanish with Mr. Garcia. A good discussion of classroom design appears in A Handbook for Bilingual Education (Saville and Troike, 1971).

As with ESL, consideration must also be given to grouping children for various activities. Migrant children will arrive with a wide range of skill levels and language levels. Some may speak no English, and some, though Spanish surnamed, may speak no Spanish. Their instructional needs will obviously be quite different and many activities will have to be done in small groups or on an individual basis. Classroom aides and parent volunteers can be most important in these efforts, but it is still the responsibility of the classroom teacher to organize the classroom and handle the basic groupings.

Materials

Instructional materials are important to an educational program. Materials often structure much of the classroom activity. Properly selected commercial materials can help the teacher provide a well defined scope and sequence of instructional objectives. Well planned and developed teacher made materials can provide an extra spark in student learning.

Bilingual and ESL teachers are fortunate that in the past few years more and more instructional materials have become available. While many materials will not fit any given program because of the differences in local language and culture, there are still many other materials available that can be adapted. The Bilingual Education Service Center of Illinois has
produced a document, *Curriculum Materials for Bilingual Programs* (Alvarado, 1973), which lists 3400 titles of materials in Spanish and English, and a supplement which lists an additional 675 titles (DeHoogh and Swanson, 1974). For each title, the subject, the suggested grade level, the media, the publisher, and the distributor are listed. Under a grant from the National Institute for Education, the Educational Products Information Exchange Institute evaluated over 100 Spanish language arts series in the EPIE Report: Number 73, *Selector's Guide for Bilingual Education Materials* (1976). A second volume, EPIE Report: Number 74, *Selector's Guide for Bilingual Education Materials, Spanish "Branch" Programs*, evaluated instructional materials in various subject areas. Those reports should be most helpful for migrant programs in the process of selecting materials.

The ESL classroom needs materials for teaching English vocabulary, structure, and pronunciation. Colorful pictures and audiovisual aids seem to be some of the best tools for teaching language. Puppets and many everyday objects can be necessary in the classroom. If the ESL teacher plans to coordinate ESL activities with the regular classroom activities, she must have materials that will focus on the classroom curriculum areas. These materials can be teacher made, or student made, or come from a variety of commercial sources. Often, one student teaching another with materials he has made stimulates learning.

The bilingual classroom needs materials for language arts in both languages, as well as materials in other subject areas in the language in which the subjects will be taught. It is most important that the materials selected be appropriate for the local language and culture. While few commercial materials will reflect a localized dialect, they can still be
used successfully with children. Curriculum developers are now leaning toward the use of a standard "international" Spanish, rather than localized dialects. Adaptation of materials by local migrant teachers can bridge the gap.

The Reading is Fundamental Program and Proyecto Leer are excellent sources for leisure reading materials in Spanish and English. Leisure reading materials are important for establishing a habit of reading in children. Other sources of materials are the materials development centers and the dissemination and assessment centers funded through the Bilingual Education Program (see Appendix B).
MEETING INDIVIDUAL STUDENTS' NEEDS

The academic and social growth of each and every student is the ultimate goal of any instructional program. To tailor an effective instructional program for each migrant student, the teacher must determine what skills each student has and what skills he needs. Ongoing diagnosis and evaluation of student progress is necessary during the course of a program to redirect teaching efforts.

Cognitive Needs

To insure the most effective teaching of a limited English speaking migrant child, his teacher must quickly determine his skill level in the English language, the content areas, and, for a bilingual program, his skill in the native language. Teaching a child a skill that is inappropriate for his level is a waste of time that a teacher of migrant children cannot afford. Although much information is available on the Migrant Student Record Transfer System, each teacher must do some testing and diagnosis.

Tests of varying quality are available for diagnosing language proficiency, language dominance, and academic achievement. The book, Evaluation Instruments for Bilingual Education: An Annotated Bibliography (1975), describes instruments that may be used with migrant children, and is available from the Dissemination and Assessment Center for Bilingual Bicultural Education. The Northwest Regional Educational Laboratory has evaluated language dominance instruments in the publication Oral Language Tests for Bilingual Students: An Evaluation of Language Dominance and
Proficiency Instruments (1976). These tests may be particularly helpful for ESL and native language placement. As with instructional materials, care must be taken in selecting instruments to be sure that they are appropriate for the student population and will give the information necessary for instructional program planning.

An instructional program is designed, or prescribed, for each child based on the diagnosis of each child's skill level. The prescription sets general goals (e.g., Juan will improve his pronunciation) as well as specific objectives (e.g., Juan will pronounce v as in vase). The goals should provide sequential and continuous growth in English, the content areas, and in the native language if the program is bilingual. Goals for individual student achievement should be consistent with overall program goals.

The classroom environment should be organized so that the individual child can master the prescribed skill in the learning strategy that best suits him. Activities that can be very effective at times include work at learning centers, individual work, and small group work. Sometimes a student can master a skill most effectively with one-to-one tutoring by a teacher, aide, volunteer, or specialist. Ramirez points to some interesting concepts on the different cognitive learning styles in New Approaches to Bilingual Bicultural Education No. 4 Field Sensitivity and Field Independence in Children (1974). He states that Mexican American children tend to be "field-sensitive" and work better with their peers, whereas Anglo children tend to be "field-independent" and work better by themselves. According to this, the American school system, which traditionally emphasizes individualism and competitiveness, is not providing the most efficient learning
situations for Mexican American children. For many of them, group learning activities may be much more appropriate. Ramirez's theories on the cooperative behavior of Mexican American children as opposed to the competitive behavior of Anglo children have interesting implications on how learning situations should be structured for Mexican American children. Administrators and classroom teachers dealing with Mexican American migrant children should be familiar with Ramirez's concepts.

The initial diagnosis and prescription are only the beginning of the testing process. After the child is taught each objective, his learning needs to be evaluated and new skills to be learned prescribed. Ongoing diagnosis and evaluation can be done daily, or, at a minimum, weekly. Continual evaluation needs to be done not only to measure the student's growth, but also to measure the effectiveness of the activities the teacher has structured. Ongoing diagnosis and evaluation can be done in a variety of ways, including teacher observation, checklists, and criterion referenced tests. Norm-referenced tests are usually used at less frequent intervals than needed for ongoing classroom planning.

Affective Needs--Biculturalism

A child's positive self-concept is necessarily related to a positive concept of his home. Therefore, it is almost impossible to speak about a limited English speaking migrant child's affective needs without talking about a biculturalism in the classroom. Numerous studies have shown the relationship of children's self concept to their academic achievement. Regardless of the program model, affective needs must be met.
Biculturalism is especially important for bilingual programs because of the close relationship of the language to the culture. Biculturalism can also be an important part of an ESL program because it makes children feel that the home culture is accepted while introducing a new culture. A bicultural enrichment program can help foster mutual respect and understanding between Spanish speaking migrant students and Anglo students.

Bicultural enrichment can be integrated into core subject areas such as language arts and math. A student can just as easily learn to read if he is reading about Juan and Maria rather than Dick and Jane. The values and lifestyles of Juan and Maria (who are hopefully not just Dick and Jane colored brown) may be similar to his own. In math, it is just as efficient for a child to learn to count objects that are culturally relevant to him rather than unknown objects.

It should not be hard to bring bicultural elements into the areas of social studies, music, and art, as they are "naturals" for studies of culture. Holidays, varying styles in clothing, and geography can be taught migrant students in all grade levels partly by showing them examples in the community. Music and art can show students that there are many creative outlets in all cultures. Nutrition education and food experiences may be studied in conjunction with social studies and the arts. Nutrition education can teach migrant children ways in which foods within their culture are good for them, as well as introduce them to foods that they have never experienced. A creative nutrition education program could structure food experiences around various cultural topics.

Career education can be used to point out many positive aspects of bilingualism and biculturalism. Through studies in career education,
migrant students can learn about many job opportunities which will be open to bilingual students who complete high school and/or college. Students at the elementary level and even at the kindergarten level are not too young to become aware of various career options open to them.

Using migrant parents in the classroom also promotes biculturalism. Parents can be used as assistants for special events such as field trips and parties, as well as in the everyday classroom curriculum. A migrant parent may have a special talent in cooking that he or she can share in a nutrition education class. Another migrant parent may be musically talented and may be proud to teach the children songs or how to play various musical instruments. A creative science lesson could include a study of food producing plants with a migrant parent taking a large part in the discussion. The opportunities for involving migrant parents in the classroom are limited only by a teacher's imagination.

Finally, bicultural education should teach not only an appreciation of the home culture, but an awareness of and an ability to deal with the dominant culture. The purpose of such education is to give the migrant child skills to deal with those different from himself and to increase his options in adult life. Bilingual education is especially critical for the migrant child who may be isolated in rural areas away from the dominant culture. Migrant students can learn much from field trips to department stores, factories, offices, etc. If his education is successful, eventually the migrant child will feel that he does indeed possess the ability to cope with nearly everything in this multi-cultural, multi-lingual world.
PROGRAM EVALUATION AND DISSEMINATION

Evaluation is an essential part of any program, necessary to measure the success of the past efforts, as well as to insure successful planning in the future. Methods of program evaluation must be decided upon before the program in question is ever launched.

Programs may be evaluated in the areas of management, staff development, education, parental involvement, and support services (social services, health, nutrition), among others. Evaluation can be carried out in terms of process (for example, what activities will we carry out to meet our goals?) and produce (for example, what will the end result be?). Both the process and the product evaluations must be consistent with the goals established at the program outset. A series of excellent references for program evaluation are the mid-year and program year evaluation reports for the Bilingual Mini-School Tutoring Project (1972-75).

Once a program evaluation is completed, it should be used in future program planning, and not put on a shelf to collect dust. If it is particularly well planned and informative, it may be disseminated to other programs and to interested administrators. A well planned and carried out evaluation can be an excellent way of assisting other programs by showing them what has and has not been effective. If certain new approaches are of special help to children, they are worth sharing.
SUMMARY AND RECOMMENDATIONS

The limited English speaking migrant child is not an "unusual child." He is only a child with special needs. Since school systems do not generally have much experience in dealing with migrant children, this monograph is intended to give these school systems some ideas with which they might provide better educational opportunities for Spanish speaking migrant children.

The education of Spanish speaking migrant children has been neglected at federal, state, and local levels. There has never been an adequate count of migrant children. The Migrant Student Record Transfer System does collect a lot of information about these children, but it fails to record either the child's home language or his dominant language. Certainly this information is as critical to program planning as the child's scores on specific tests, which are listed. Before Spanish speaking migrant children's needs can be met on a national level, determination of the number of migrant children currently enrolled in elementary and high schools is needed to get Congressional support and funds for migrant programs.

State educational agencies and local educational agencies must also become more aware of the needs of Spanish speaking migrant children. Efforts to meet their needs must be made in states without ESL or bilingual legislation, as well as in those with such legislation. State agencies must provide leadership to local schools that need special expertise, as well as distributing funds for various local projects. Hopefully, through
combined efforts at federal, state, and local levels, all migrant children who need bilingual education or ESL will have access to such programs.
REFERENCES


DeHoogh, Guillermo and Maria Medina Swanson, Eds. *Curriculum Materials for Bilingual Programs Supplement, Pre-K to Adult*. Mount Prospect, Illinois: Bilingual Education Service Center, 1974. (ED 113 409, 123pp.)

Dissemination and Assessment Center for Bilingual Bicultural Education. *Evaluation Instruments for Bilingual Education: An Annotated Bibliography*. Austin, Texas: Dissemination and Assessment Center for Bilingual Bicultural Education, 1975. (ED 111 182, 125pp.)


OTHER RECOMMENDED REFERENCES


Pollard, Merel., Comp. Parker Migrant Summer School Migrant Program: Kindergarten through Grade Six. Phoenix: Division of Migrant Child Education, 1974. (ED 116 847, 47pp.)


APPENDIX A

List of Colleges and Universities Offering Bilingual Education Training

Dr. Carlos Vallejo
Arizona State University
College of Education
Tempe, Arizona 85281

Dr. Rodolfo Serrano
California State University at Bakersfield
School of Education
9001 Stockdale Highway
Bakersfield, California 93309

Ms. Sylvia Rose Gonzalez
California State University,
Dominquez Hills
School of Education
1000 East Victoria Street
Dominquez Hills, California 90747

Dr. Charles F. Leyba
California State University at Los Angeles
Bilingual Teacher Training Center
5151 State University Drive
Los Angeles, California 90032

Dr. Dolores Escobar Litsinger
California State University at Northridge
Department of Elementary Education
Northridge, California 91324

Dr. Roberto D. Segura
California State University at Sacramento
Department of Teacher Education
6000 J Street
Sacramento, California 95819

Dr. M. Reyes Mason
San Diego State University
Institute for Cultural Pluralism
School of Education
San Diego, California 92182

Dr. Gustavo Gonzalez
University of California at Santa Barbara
Graduate School of Education
Bilingual/Cross-Cultural Program
Santa Barbara, California 93106

Dr. Jose R. Llanes
University of San Francisco
Multicultural Program
Golden Gate and Parker Avenues
San Francisco, California 94117

Dr. Gus Garcia
University of the Pacific
School of Education
Stockton, California 95211

Dr. Leonard Baca
University of Colorado
School of Education
Division of Educational Specialists
Boulder, Colorado 80309

Dr. Byron Massiales
Florida State University
School of Education
Tallahassee, Florida 32306

Dr. Henry Trueba
University of Illinois at Urbana
College of Education
329 Education Building
Urbana, Illinois 61801

Dr. Kenneth Nickel
Wichita State University
College of Education
Box 28
Wichita, Kansas 67208
APPENDIX B
Bilingual Education Centers

Training Resource Centers

Roberto Cruz
Berkeley Resource Center
2168 Shattuck Avenue
Berkeley, California 94704
(415) 549-1820

Anthony M. Vega
Comprehensive Educational Assistance Center
800 North State College Boulevard
Fullerton, California 92634
(714) 870-3109

Steven F. Arvizu
Cross-Cultural Resource Center
6000 "J" Street
Sacramento, California 95819
(916) 454-6985

M. Reyes Mazon
Bilingual Education Training Resource Center
Institute for Cultural Pluralism
5544½ Hardy Avenue
San Diego, California 92182
(714) 286-5193

Maria Medina-Swanson
Midwest Resource Center for Bilingual Bicultural Education
Bilingual Education Service Center
500 South Dwyer Avenue
Arlington Heights, Illinois 60005
(312) 255-9820

Robert Fontenot
University of Southwestern Louisiana
Bilingual Bicultural Resource Center
East University Avenue
Lafayette, Louisiana 70504
(318) 233-3850

(Source: Office of Bilingual Education, U. S. Office of Education)
Antonio Simoes  
New England Bilingual Training Resource Center  
765 Commonwealth Avenue  
Boston, Massachusetts 02215  
(617) 353-4365

Jose A. Gandert  
Southwest Bilingual Education Training Resource Center  
The University of New Mexico  
College of Education  
Albuquerque, New Mexico 87131  
(505) 277-3551

Carmen Velkas  
Regional Bilingual Training Resource Center  
Center for Bilingual Education  
110 Livingston Street, Room 224  
Brooklyn, New York 11202  
(212) 858-5505

Dr. Frank X. Sutman  
Merit Center  
Ritter Hall Annex, Room 434  
Broad Street and Montgomery Avenue  
Philadelphia, Pennsylvania 19122  
(215) 787-6258

Adeline Becker  
New England Multilingual-Multicultural Teaching Resource Center  
86 Fourth Street  
Providence, Rhode Island 02906  
(401) 331-3627

Joel Gomez  
South Central Bilingual Resource Center  
Region XIII Education Service Center  
6504 Tractor Lane  
Austin, Texas 78721  
(512) 926-8080

Dr. Hugo Rivera  
National Network of Bilingual Bicultural Education  
Intermountain Resource Center  
2201 East 13th Street  
Salt Lake City, Utah 84109  
(801) 581-8221
Dr. Robert Manion  
Bilingual Education Technical Assistance Center  
P. O. Box 1357  
Tacoma, Washington 98401  
(206) 383-1811

Dr. Juan Juarez  
Bilingual Training Resource Center  
University of Washington  
122 Miller Hall  
Seattle, Washington 98195  
(206) 543-9424

**Dissemination and Assessment Centers**

John Correiro  
Dissemination and Assessment Center  
Lesley College  
29 Everett Street  
Cambridge, Massachusetts 02138  
(617) 492-0505

Charles Leyba  
Assessment and Dissemination Center  
California State University  
5151 State University Drive  
Los Angeles, California 90032  
(213) 224-3631

Joel Gomez  
Dissemination and Assessment Center for Bilingual Education  
Education Service Center – Region XIII  
Program Development Division  
6504 Tracor Lane  
Austin, Texas 78721  
(512) 926-6129

**Materials Development Centers**

Tupou Pulu  
Alaskan Native Language Material Development Center  
University of Alaska  
Rural Education Affairs  
104 Bunnell  
Fairbanks, Alaska 99701  
(907) 479-7239  
(Develops for Alaskan Languages)
Elizabeth M. Antley
Arizona Bilingual Materials Development Center
University of Arizona
1434 East 2nd Street
Tucson, Arizona 85721
(602) 884-3724

Dennis Fukumoto
Asian Bilingual Material Center
15 West Alhambra Road
Alhambra, California 91801
(213) 277-5411

Linda Wing
Asian American Bilingual Center
2168 Shattuck
Berkeley, California 94704
(415) 848-3199

Roberto Ortiz
Multilingual-Multicultural Materials Development Center
3801 West Temple Avenue
Pomona, California 91768
(714) 598-4984

Ralph Robinett
Spanish Curricula Development Center
7100 N. W. 17th Avenue
Miami, Florida 33147
(305) 696-2244

Henry Trueba and Rudolfo Martinez
Midwest Office for Materials Development
University of Illinois
College of Education
Urbana, Illinois 61801
(217) 333-2615

Andrew Ford
National Materials Development Center for French and
Portuguese
168 South River Road
Bedford, New Hampshire 01102
(603) 668-7198

John Young
Asian Bilingual Curriculum Development Center
4400 South Orange Avenue
South Orange, New Jersey 07079
(201) 762-9000

(Develops for Chinese,
Japanese, and Korean)

(Develops for Chinese,
Japanese, Korean,
Filipino, and Samoan)

(Develops for Chinese,
Japanese, Korean,
Filipino, and Samoan)
Gloria Emerson
Native American Materials Development Center
407 Rio Grande Blvd., N. W.
Albuquerque, New Mexico 87103
(505) 242-5222 (Develops for Navajo)

Aurfa Rodriguez
Northeast Center for Curriculum Development
778 Forest Avenue
Bronx, New York 10456

Carlos Perez
Bilingual Materials Development Center
6000 Camp Bowie Road
Fort Worth, Texas 76107
(817) 731-0736

Juan Solis
The National Center for the Development of Bilingual Curriculum
3700 Ross Avenue
Dallas, Texas 75204
(214) 824-1620

Francisco Urbina
Midwest Materials Development Center
1516 West Forest Home Avenue
Milwaukee, Wisconsin 53204
(414) 475-8731
THE AUTHOR

Ms. Arnow has an M.S. in Bilingual Education/Teaching English as a Second Language and has experience in both migrant education and bilingual education. At present, she is a consultant with Development Associates, Inc., of Washington, D. C., where she is active in several studies in the field of education. Relevant to this paper, she is involved in a contract with the J. S. Office of Education to analyze the status of bilingual curriculum materials development. She was also a field evaluator on a study of state-supported bilingual programs. In addition, she is working on an implementation study of Project Developmental Continuity, a Head Start experimental program which emphasizes bilingual multicultural education.

Prior to her present position, Ms. Arnow worked with the Broward County, Florida Migrant Education Center as a tutorial-teacher. She supervised paraprofessionals in a tutorial program and taught ESL to Spanish speaking migrant students. Ms. Arnow also taught in a bilingual bi-national school in Colombia, S. A.
1. Characteristics of the document type

We usually think of educational guides as providing instructions for teaching a certain subject matter. Typically, however, the category of guides is very broad and consists of diverse materials which vary in content and format. The types of guides include teaching, curriculum, study, leaders, administrative, and resource guides.

Although we tend to think of the purpose of a guide as containing instructions for teaching about a certain subject matter, the content in guides varies. For example, their purpose can be to provide step-by-step lesson plans, to present guidelines for implementing programs, or simply to suggest certain techniques. In addition to providing instructions for teachers, students, and other groups such as parents, guides may include background information for teachers, actual teaching techniques such as role playing, suggestions for adapting materials, descriptions of resources, questions for discussion, and readings from primary and secondary sources.

Typically guides are well-structured documents with discrete tables of contents, and distinct sections consisting of lists or outlines of
educational objectives, teaching procedures or techniques, suggested activities, lists of instructional resource materials, and bibliographies. The format of each guide varies greatly. Information can be in text-like form, outline form, or chart form.

Because guides do contain many types of materials and features, the abstract should be written in an indicative mode. In order to represent the document accurately itself, the subject matter, organization, and special features need to be described adequately. The abstractor can best describe such materials with an indicative abstract. As suggested in the introduction to Document Number 3--"Structure of the abstract should stem directly from the structure of the document."

Since guides are usually well-structured with discrete sections, it normally is not necessary to read the guide in its entirety, particularly if it includes most structural indicators noted above.

This guide on metrics that you will be abstracting is one of several put into ERIC for a home economics occupation cluster. It is part of a set of packages for metric instruction in different occupations. The guide is designed to help the clothing alterations specialist become familiar with the metric system.

The purpose of the document is expressed first of all in its title, "Metrics for Alterations Specialists." The aim is also stated in the first sentence of the introductory section: "This instructional package for teaching and learning metric...." It is evident that the guide provides metric instruction for the alterations specialist.
This guide is not prescriptive, since it does not offer step-by-step information. That it is suggestive is stated in the first paragraph of the introduction, "Teachers and learners are encouraged to adapt the materials to preferred approaches." The content of the guide is representative of many in the ERIC system in that it contains objectives, learning activities, and units. The format of the document is different from most guides because it does not contain a table of contents. However, the four unit sections are clearly delineated, as are the objectives, learning activities, and supporting information.

2. What a practiced eye will look for in such a document

Since the document does not have a table of contents, it is necessary to examine other structural elements. The inside introductory page describes the purpose and format and offers other information. It would be wise to skim this. After determining the purpose of the document, it would be helpful to skim the rest of the document, focusing especially on the first page of each unit. Most of the experienced abstractors who worked on this document stated that they briefly read the introduction and scanned the rest of the guide in sequential order. They read only enough to see what the document was about and how the information was organized.

Keeping in mind the guidelines for writing an indicative abstract discussed in Document Number 3, you are now ready to index and abstract the document on metrics. Remove it from the notebook and begin working.
3. **Parts of the document on which the abstract should be based**

The abstract should be based on information presented in the introduction, amplified by material drawn from the four units of the instructional package.

If the abstract had been based on the introductory page only, it would have focused on the objectives and would not have adequately described the content of the units. The reader of the abstract would like to know, for example, that Unit 1 is a general introduction to the metric system of measurement which enables students to become familiar with the basic metric units, their symbols, and measurement instruments. The focus of the abstract should be on the actual instructional package.

4. **Essential features of the content of the abstract**

An abstract for a guide should contain the following elements:

a. subject area and grade level,

b. specific objectives of the course,

c. unit areas of the course,

d. particularly interesting methods used,

e. supplementary activities and suggested materials.

The two sample abstracts which follow include most of this information. In addition, relevant information was included on use and intended audience of the material.

Topic sentences describe the purpose and scope of the guide. Both abstracts describe units effectively.
Sample Abstract #1

The emphasis in this abstract is on the content of the units. After the units are thoroughly described, the abstractor notes that performance objectives are contained in the package and lists other information that is included.

Designed to meet the job-related metric measurement needs of alterations specialists, this instructional package is intended to accommodate a variety of individual teaching and learning styles. There are four units in this guide. Unit 1, a general introduction to the metric system of measurement, provides informal hands-on experiences for the students. This unit enables students to become familiar with the basic measurement instruments and to develop a set of mental references for metric values. The metric system of notation also is explained. Unit 2 focuses on job-related metric equivalents and their relationships. Unit 3 provides experience with recognizing and using metric instruments and tools in occupational measurement tasks. It also provides experience in comparing metric and customary measurement instruments. Unit 4 is designed to give students practice in converting customary and metric measurements. Each of the four units in this package contains performance objectives, learning activities, and supporting information in the form of text, exercises, and tables. In addition, suggested teaching techniques are included. At the back of the package is a list of references, including metric suppliers and information sources.

Sample Abstract #2

Sample abstract #2 contains all of the elements that should be included in the abstract. The information about content is very detailed.

This instructional package for teaching the metric system to alteration specialists is organized in terms of four objectives: the students will recognize and use (1) metric units, terms, and symbols; (2) metric equivalents and relationships among metric measurements; (3) instruments, tools, and devices for measurement tasks in this occupation; and (4) metric and customary units interchangeably in making clothing alterations and ordering supplies. The eight pages devoted to the first objective include information sheets on metric units; two tables of units for length,
area, mass, volume/capacity, and temperature; three visuals on metric relationships, temperature, and prefixes; and two exercises requiring students to measure. For the second objective, one page provides information on equivalents and relationships; the second page contains nine multiple-choice and completion items. The two pages for objective 3 contain an information sheet on selecting and using metric measures and a set of activity exercises. For objective 4, information on equivalents is given, conversion tables fill the second page, and three occupation-oriented exercises are on the third page. For each objective, a sequence for using the pages is suggested. Eleven references are also included.

5. Indexing Analysis

Indexable Concepts

As discussed in Document Number 3, major descriptors should represent the overall topic of the document.

<table>
<thead>
<tr>
<th>Major</th>
<th>Minor</th>
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<tr>
<td>°METRIC SYSTEM</td>
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<td>TEACHER DEVELOPED MATERIALS</td>
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<td>LEARNING ACTIVITIES</td>
</tr>
<tr>
<td></td>
<td>BEHAVIORAL OBJECTIVES</td>
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</tbody>
</table>

Curriculum or Subject Area Concepts

Metrics and measurement are two important concepts which describe the specific content of this document. °METRIC SYSTEM is the most appropriate major descriptor which reflects this concept. °MEASUREMENT, a related term to metric, should also be a major descriptor. Both concepts describe the content of the document.
In the curriculum area, *SEWING INSTRUCTION should be a major descriptor. The guide provides instructions for teaching measurement techniques to be used when altering clothes. *OCCUPATIONAL HOME ECONOMICS, also made a major, is right on target. The scope note for this descriptor reads "Formal preparation for occupations using home economics knowledge and skills—below the baccalaureate level."

**Population/Educational Level Concepts**

Since the document obviously is intended for adult education, ADULT EDUCATION was made a minor descriptor. Although the educational level is not specified in the document, it could, however, be used at both the secondary and adult level. Therefore, SECONDARY EDUCATION and POSTSECONDARY EDUCATION are the appropriate mandatory educational level descriptors; both are minor.

**Material Component of Guide**

The units offer numerous learning activities; therefore, LEARNING ACTIVITIES was made a minor descriptor. BEHAVIORAL OBJECTIVES was also made a minor descriptor. Searchers may want behavioral objectives in subject areas such as this and would be able to retrieve this document using the minor descriptor BEHAVIORAL OBJECTIVES.
Publication Type

Two minor descriptors reflect the "form" of the document: TEACHING GUIDES and TEACHER DEVELOPED MATERIALS. INSTRUCTIONAL MATERIALS (BT to TEACHER DEVELOPED MATERIALS) is not used since it does not reflect the specificity of the document. This document is a guide for teachers; thus, the Pub Type code is 052.

There was an extremely wide scattering of indexing among Clearinghouses on this document. Eight Clearinghouses indexed this document very differently. For example, one Clearinghouse used the descriptor MATHEMATICS INSTRUCTION, while another indexed the document with the descriptor MATHEMATICS EDUCATION. Both descriptors are off-target. Under the curriculum area, two Clearinghouses used the descriptor NEEDLE TRADES, two SEWING INSTRUCTION, and one CLOTHING INSTRUCTION. Eighteen other various descriptors were listed by one or two other Clearinghouses. This kind of indexing presents serious problems to searchers. This particular illustration clearly emphasizes the need for the indexer to ask the very important question quoted from the ERIC Processing Manual "Would a searcher after a particular concept be satisfied to retrieve this document?"
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<td>*OCCUPATIONAL HOME ECONOMICS</td>
<td></td>
<td></td>
<td>NEEDLE TRADES</td>
</tr>
<tr>
<td>LEVELING TERMS</td>
<td></td>
<td></td>
<td>FROM MANDATORY LEVELING LIST</td>
<td>ADULT VOCATIONAL EDUCATION</td>
</tr>
<tr>
<td></td>
<td>ADULT EDUCATION</td>
<td></td>
<td></td>
<td>VOCATIONAL EDUCATION</td>
</tr>
<tr>
<td></td>
<td>POSTSECONDARY EDUCATION</td>
<td></td>
<td></td>
<td>JOB SKILLS</td>
</tr>
<tr>
<td></td>
<td>SECONDARY EDUCATION</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DOCUMENT TYPES</td>
<td>TEACHING GUIDES</td>
<td></td>
<td>DESCRIPTORS USED TO DESCRIBE 'DOCUMENT TYPE' ARE ENTERED AS MINORS</td>
<td>WORKSHEETS</td>
</tr>
<tr>
<td></td>
<td>TEACHER DEVELOPED MATERIALS</td>
<td></td>
<td></td>
<td>VISUAL AIDS</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>INSTRUCTIONAL MATERIALS</td>
</tr>
<tr>
<td>DOCUMENT COMPONENTS</td>
<td>LEARNING ACTIVITIES</td>
<td></td>
<td></td>
<td>EDUCATIONAL OBJECTIVES</td>
</tr>
<tr>
<td></td>
<td>BEHAVIORAL OBJECTIVES</td>
<td></td>
<td></td>
<td>INDIVIDUALIZED INSTRUCTION</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>INSTRUCTION</td>
</tr>
</tbody>
</table>
METRICS FOR
ALTERATIONS SPECIALISTS
Teaching and Learning Metric

This instructional package for teaching and learning metric was designed to accommodate a variety of individual teaching and learning styles. Teachers and learners are encouraged to adapt the materials to preferred approaches. The most important consideration is whether students will be able to perform on the job; therefore, objectives and learning activities may be modified to meet specific job requirements.

The instructional materials were organized with a simple strategy. Occupational outcomes are stated (1). These are each supported by occupational performance objectives (2). Teaching sequences (3) are suggested to help students achieve performance objectives. Information, tables, visuals, exercises, and references are given to help teachers and students with the suggested experiences. Evaluation (4) of students is based upon performance objectives.

1. Students learn better when metric units are compared to familiar objects. Learning the new system by comparing it to the customary system is confusing and more difficult. Students should learn to "think metric."

2. Students should learn a core of knowledge about the metric system which will be used in measurement and calculation.

3. Students should have actual experiences with specific metric units and derivations commonly used for -
   * metric instruments, tools, and devices used in their occupation
   * estimating, measuring, and verifying metric values in job tasks
   * determining metric equivalents and relationships in job tasks.

4. Students should have practice with skills to achieve adequate job performance.

5. Students should be tested to assure achievement of performance objectives.

A few additional suggestions also may be helpful.

1. Take small steps to avoid discouraging students.
2. Let first experiences be informal to make learning the metric system fun.
3. Move through steps (e.g., length to area to volume) which emphasize the simplicity of the metric system.
4. Recognize that wanting to know depends on needing to know.

USING THESE INSTRUCTIONAL MATERIALS

Teachers are encouraged to adapt these materials to their own classes. The Information Sheets may be presented by teachers or given to students as supplemental resources. Visuals may be used as transparency masters, duplication masters or bulletin board displays. Exercises can be used in independent study, small group activity, or in whole class activity. Tests may be used as pre- or post-tests. All of the materials can be extended by the teacher.

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OBJECTIVES

The student will recognize and use metric units, terms, and symbols.

- Given a metric unit, state a physical referent.
- Given a measurement task, select the appropriate metric unit.
- Given a measurement, write in metric symbols using proper rules of notation.

SUGGESTED TEACHING SEQUENCE

1. Assemble metric measuring devices (rules, tapes, scales, thermometers, measuring containers) and objects to be measured.
2. Present or make available Information Sheet No. 1; Visual Nos. 1, 2, and 3; and Tables 1 and 2.
3. Have students estimate, measure, and record using Exercise Nos. 1, 2, and 3.
4. Test performance with Section A of “Testing Metric Abilities.”

METRIC UNITS

In the metric system, as in our Customary system, most measurements involve time, length, area, volume, mass, and temperature. Each of these quantities is measured in units of a determined size.

The metre (length), litre (volume), and gram (mass) are basic units used in the metric system instead of the foot, quart, and pound in the Customary system. These basic units will be used increasingly as industry and business changes over to the metric system.

Table 1 gives the basic metric units, their symbols, and some useful referents for five of the quantities. Time is not shown because it is the same in both systems. Table 2 lists the metric units and symbols used in your occupation.

PREFIXES

Prefixes are used with the basic units, to provide larger and smaller units for different measurement tasks; for example, kilometre, centimetre, millimetre. Prefixes increase and decrease in multiples of 10. The first syllable is stressed in pronouncing the names of units with prefixes. For example, kilogram is pronounced “KILL-o-gram.” Common prefixes are:

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Symbol</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>kilo</td>
<td>k</td>
<td>1000 (thousand)</td>
</tr>
<tr>
<td>centi</td>
<td>c</td>
<td>0.01 (hundredth)</td>
</tr>
<tr>
<td>milli</td>
<td>m</td>
<td>0.001 (thousandth)</td>
</tr>
</tbody>
</table>

A kilometre is 1 000 metres; a centimetre is one-hundredth (0.01) of a metre, and a millimetre is one-thousandth (0.001) of a metre.

RULES OF NOTATION

1. Symbols are not capitalized unless the unit is a proper name (mm not MM).
2. Symbols are not followed by periods (m not m.).
3. Symbols are not followed by an s for plurals (25 g not 25gs).
4. A space separates the numerals from the unit symbols (41 not 4l).
5. Spaces, not commas, are used to separate large numbers into groups of three digits (45 271 km not 45,271 km).
6. A zero precedes the decimal point if the number is less than one (0.52 g not .52 g).
### Metric Units, Symbols, and Referents

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Metric Unit</th>
<th>Symbol</th>
<th>Useful Referents</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Length</strong></td>
<td>millimetre</td>
<td>mm</td>
<td>Thickness of dime or paper clip wire</td>
</tr>
<tr>
<td></td>
<td>centimetre</td>
<td>cm</td>
<td>Width of paper clip</td>
</tr>
<tr>
<td></td>
<td>metre</td>
<td>m</td>
<td>Height of door about 2 m</td>
</tr>
<tr>
<td></td>
<td>kilometre</td>
<td>km</td>
<td>12-minute walking distance</td>
</tr>
<tr>
<td><strong>Area</strong></td>
<td>square centimetre</td>
<td>cm²</td>
<td>Area of this space</td>
</tr>
<tr>
<td></td>
<td>hectare</td>
<td>m²</td>
<td>Area of card table top</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ha</td>
<td>Football field including sidelines and end zones</td>
</tr>
<tr>
<td><strong>Volume and Capacity</strong></td>
<td>millilitre</td>
<td>ml</td>
<td>Teaspoon is 5 ml</td>
</tr>
<tr>
<td></td>
<td>litre</td>
<td>l</td>
<td>A little more than 1 quart</td>
</tr>
<tr>
<td></td>
<td>cubic centimetre</td>
<td>cm³</td>
<td>Volume of this container</td>
</tr>
<tr>
<td></td>
<td>cubic metre</td>
<td>m³</td>
<td>A little more than a cubic yard</td>
</tr>
<tr>
<td><strong>Mass</strong></td>
<td>milligram</td>
<td>mg</td>
<td>Apple seed about 10 mg</td>
</tr>
<tr>
<td></td>
<td>gram</td>
<td>g</td>
<td>Nickel about 5 g</td>
</tr>
<tr>
<td></td>
<td>kilogram</td>
<td>kg</td>
<td>Webster's Collegiate Dictionary</td>
</tr>
<tr>
<td></td>
<td>tonne (1000 kilograms)</td>
<td>t</td>
<td>Volkswagen Beetle</td>
</tr>
<tr>
<td><strong>Temperature</strong></td>
<td>degree Celsius</td>
<td>°C</td>
<td>Water freezes at 0 °C; boils at 100 °C</td>
</tr>
</tbody>
</table>

![Diagram of Metric Units and Referents]

### Table 1

- 1000 cm³ = 1 litre
- 1 litre = 1 kilogram
<table>
<thead>
<tr>
<th>Quantity</th>
<th>Unit</th>
<th>Symbol</th>
<th>Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>millimetre</td>
<td>mm</td>
<td>Design; drafting paper dimensions; button spacing; bolt and screw dimensions; wrench sizes.</td>
</tr>
<tr>
<td></td>
<td>centimetre</td>
<td>cm</td>
<td>Fabric width; body measurements; patterns; seam and dart widths; seam and inseam lengths; zippers; design; work table width.</td>
</tr>
<tr>
<td></td>
<td>metre</td>
<td>m</td>
<td>Fabric, tape, webbing, piping, and thread lengths; floor dimensions.</td>
</tr>
<tr>
<td>Area</td>
<td>square centimetre</td>
<td>cm²</td>
<td>Fabric quantities; swatch and patch sizes; spots and stains.</td>
</tr>
<tr>
<td></td>
<td>square metre</td>
<td>m²</td>
<td>Work space; storage area; fabric quantities.</td>
</tr>
<tr>
<td>Mass</td>
<td>gram</td>
<td>g</td>
<td>Shipping and mailing; purchasing by mar's beeswax, notions, yarn, thread, heavy sewing machine lubricant, and powdered chemicals; purchasing tools and equipment.</td>
</tr>
<tr>
<td></td>
<td>kilogram</td>
<td>kg</td>
<td></td>
</tr>
<tr>
<td>Volume/Capacity</td>
<td>millilitre</td>
<td>ml</td>
<td>Water; cleaning fluids; fabric treatment solutions; dye solutions; sewing machine oil; filling steam and mangle irons.</td>
</tr>
<tr>
<td></td>
<td>litre</td>
<td>l</td>
<td></td>
</tr>
<tr>
<td>Temperature</td>
<td>degree Celsius</td>
<td>°C</td>
<td>Pressing temperatures; mixing and using chemical solutions; relating indoor and outdoor temperature and clothing fabrics to customer comfort.</td>
</tr>
</tbody>
</table>
### METRIC RELATIONSHIPS

<table>
<thead>
<tr>
<th>Length</th>
<th>Area</th>
<th>Volume</th>
<th>Capacity</th>
<th>Mass</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 cm</td>
<td>1 cm²</td>
<td>1 cm³</td>
<td>1 ml</td>
<td>1 g</td>
</tr>
</tbody>
</table>

- 1 cm = 1 cm² = 1 cm³ = 1 ml = 1 g
- 1000 cm³ = 1 litre = 1 kilogram

---

**Visual No. 1**

THE CENTER FOR VOCATIONAL EDUCATION

- 168
- 169
Boiling 100°C

Normal body temp. 37°C

Very hot day 30°C and above

Comfortable room temp. 20°C to 23°C

Cool summer day 16°C to 20°C

Freezing 0°C

Cold winter night -10°C and below
<table>
<thead>
<tr>
<th>Prefix</th>
<th>Symbol</th>
<th>Decimal Value</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>mega</td>
<td>M</td>
<td>1 000 000</td>
<td>1 megametre - 1 000 000 m</td>
</tr>
<tr>
<td>kilo</td>
<td>k</td>
<td>1 000</td>
<td>1 kilometre - 1000 m</td>
</tr>
<tr>
<td>hecto</td>
<td>h</td>
<td>100</td>
<td>1 hectometre - 100 m</td>
</tr>
<tr>
<td>deka</td>
<td>da</td>
<td>10</td>
<td>1 dekametre - 10</td>
</tr>
<tr>
<td>base unit</td>
<td></td>
<td>1</td>
<td>1 metre - 1 m</td>
</tr>
<tr>
<td>deci</td>
<td>d</td>
<td>0.1</td>
<td>1 decimetre - 0.1 m</td>
</tr>
<tr>
<td>centi</td>
<td>c</td>
<td>0.01</td>
<td>1 centimetre - 0.01 m</td>
</tr>
<tr>
<td>milli</td>
<td>m</td>
<td>0.001</td>
<td>1 millimetre - 0.001 m</td>
</tr>
<tr>
<td>micro</td>
<td>µ</td>
<td>0.000 001</td>
<td>1 micrometre - 0.000 001 m</td>
</tr>
</tbody>
</table>
TRYING OUT METRIC UNITS

To give you practice with metric units, first estimate the measurements of the items below. Write down your best guess next to the item. Then actually measure the item and write down your answers using the correct metric symbols. The more you practice, the easier it will be.

<table>
<thead>
<tr>
<th>Item</th>
<th>Estimate</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Palm width</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Hand span</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Your height</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Length of hemline</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Height of thread spool</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Height of ironing board</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Index card</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Length of shears</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Diameter of thread spool</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Desk top</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Classroom floor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Sheet of paper</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Patch pocket</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Spot or stain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Small soft drink bottle</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. Measuring cup (metric)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. Milk container</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. Small box or package</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19. Shipping container</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20. Coffee cup</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21. Notions bin</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22. Spray/steam iron</td>
<td></td>
<td></td>
</tr>
<tr>
<td>23. Textbook</td>
<td></td>
<td></td>
</tr>
<tr>
<td>24. Nickel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>25. Paper clip</td>
<td></td>
<td></td>
</tr>
<tr>
<td>26. A litre of water (ncl)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>27. Thimble</td>
<td></td>
<td></td>
</tr>
<tr>
<td>28. Yourself</td>
<td></td>
<td></td>
</tr>
<tr>
<td>29. Room</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30. Outside</td>
<td></td>
<td></td>
</tr>
<tr>
<td>31. Cold tap water</td>
<td></td>
<td></td>
</tr>
<tr>
<td>32. Hot tap water</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
SEWING WITH METRICS

It is important to know what metric measurement to use. Show what measurement to use in the following situations.

1. Length of needle
2. Area of table
3. Length of lace strip
4. Thread length on full spool
5. Length of scissors
6. Mass of ball of yarn or linen thread
7. Length of pants inseam
9. Volume of cleaning fluid
10. Length of fabrics
11. Mass of heavy lubricant for sewing machine
12. Diameter of a button
13. Thickness of buttons
14. Area of leather trim on coat pockets
15. Dimensions of a zipper
16. Width of fabrics
17. Temperature range for pressing wool

Exercise No. 2

IT FIGURES WITH METRICS

Using a metric tape measure and working as partners, take the body measurements of your partner as described in the following measurement chart. Complete this chart with your own measurements.

### MEASUREMENT CHART

<table>
<thead>
<tr>
<th>Description</th>
<th>My Measurements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width of armhole, 10 centimetres down from shoulder seam</td>
<td></td>
</tr>
<tr>
<td>Width of fullest part above bust</td>
<td></td>
</tr>
<tr>
<td>Length of sleeve (top of arm to wrist, arm bent)</td>
<td></td>
</tr>
<tr>
<td>Back skirt length (waist to hem)</td>
<td></td>
</tr>
<tr>
<td>Front skirt length (waist to hem)</td>
<td></td>
</tr>
<tr>
<td>Waist (waist)</td>
<td></td>
</tr>
<tr>
<td>Hip (about 18 centimetres below waist or fullest part)</td>
<td></td>
</tr>
<tr>
<td>Neck (around base of neck)</td>
<td></td>
</tr>
<tr>
<td>Wrist (not too tight)</td>
<td></td>
</tr>
<tr>
<td>Neck to waist (base of neck to waistline)</td>
<td></td>
</tr>
<tr>
<td>Front length to waist (base of neck to waistline)</td>
<td></td>
</tr>
</tbody>
</table>

Source: Adapted from Mathematics I - Needle Trades, Antoinette J. Colicchio and Burt D. Coe, Vocational Division - Curriculum Laboratory, Administration Building, College of Agriculture, New Brunswick, NJ 08903, July 1960, page 72.
OBJECTIVE

The student will recognize and use metric equivalents and relationships among metric measurements.

- Given a metric unit, state an equivalent in a larger or smaller metric unit.

SUGGESTED TEACHING SEQUENCE

1. Present or make available Information Sheet 2 and Visuals 1 and 3. Demonstrate if necessary.

2. Have students complete Exercise No. 4.

3. Test performance with Section B of "Testing Metric Abilities."

METRIC-METRIC EQUIVALENTS

Sometimes a measurement in one metric unit must be expressed in a different metric unit. This change of units can be made by multiplying or dividing by some power of ten. Metric prefixes and their definitions may be used to make these changes. To decide whether to multiply or divide, follow these rules.

1. When changing from a larger to a smaller unit, multiply.

2. When changing from a smaller to a larger unit, divide.

PROBLEM 25 km = ______ m
WE KNOW 1 km = 1 000 m
THEREFORE 25 km = 25 x 1 000 m or 25 000 m

PROBLEM 2 500 mm = ______ cm
WE KNOW 10 mm = 1 cm
THEREFORE 2 500 mm = \( \frac{2 500 \text{ mm}}{10 \text{ mm}} \) or 250 cm

If you are finding equivalents between area (or volume) units, the power of ten must be squared (or cubed) before you multiply or divide.

PROBLEM 2.5 in\(^2\) = ______ cm\(^2\)
WE KNOW 1 in\(^2\) = 10 000 cm\(^2\)
THEREFORE 2.5 in\(^2\) = 2.5 x 10 000 cm\(^2\) or 25 000 cm\(^2\)

PROBLEM 15 000 cm\(^2\) = ______ m\(^2\)
WE KNOW 10 000 cm\(^2\) = 1 m\(^2\)
THEREFORE 15 000 cm\(^2\) = \( \frac{15 000 \text{ cm}^2}{10 000 \text{ cm}} \) or 1.5 m\(^2\)

METRIC RELATIONSHIPS

In the metric system there is a logical relationship among the units of volume and mass.

A cube with sides 10 cm long has a volume of 1 000 cm\(^3\) (10 cm x 10 cm x 10 cm). This volume is defined to be one litre. Since 1 000 cm\(^3\) = 1 l and 1 l = 1 000 ml, we know that 1 cm\(^3\) = 1 ml.
### 1. Write each measurement below in metres.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
<td>2350 cm =</td>
</tr>
<tr>
<td>b)</td>
<td>235 cm =</td>
</tr>
<tr>
<td>c)</td>
<td>2350 mm =</td>
</tr>
<tr>
<td>d)</td>
<td>235 mm =</td>
</tr>
</tbody>
</table>

- ex: 25 km = 25 000 m
- e) 2.35 km =
- f) 0.235 km =
- g) 0.0235 ha =
- h) 0.235 ha =

### 2. Write each measurement below in millimetres.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
<td>7.5 cm =</td>
</tr>
<tr>
<td>b)</td>
<td>0.75 cm =</td>
</tr>
<tr>
<td>c)</td>
<td>0.075 cm =</td>
</tr>
<tr>
<td>d)</td>
<td>0.075 m =</td>
</tr>
</tbody>
</table>

- ex: 250 cm = 2 500 mm
- e) 0.075 km =
- f) 0.075 km =

### 3. Write each measurement below in centimetres.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
<td>225.5 mm =</td>
</tr>
<tr>
<td>b)</td>
<td>0.025 m =</td>
</tr>
<tr>
<td>c)</td>
<td>2.25 km =</td>
</tr>
</tbody>
</table>

- ex: 2 500 mm = 250 cm
- d) 0.225 km =
- e) 22.55 mm =

### 4. Write each measurement below in square centimetres.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
<td>2.5 mm² =</td>
</tr>
<tr>
<td>b)</td>
<td>0.25 m² =</td>
</tr>
<tr>
<td>c)</td>
<td>0.025 m² =</td>
</tr>
<tr>
<td>d)</td>
<td>25 mm² =</td>
</tr>
</tbody>
</table>

- ex: 2.5 m² = 25 000 cm²

### 5. Write each measurement below in cubic centimetres.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
<td>2.5 mm³ =</td>
</tr>
<tr>
<td>b)</td>
<td>0.25 m³ =</td>
</tr>
<tr>
<td>c)</td>
<td>0.025 m³ =</td>
</tr>
<tr>
<td>d)</td>
<td>25 mm³ =</td>
</tr>
</tbody>
</table>

- ex: 1 m³ = 1 000 000 cm³

### 6. Write each measurement below in cubic millimetres.

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
<td>250 cm³ =</td>
</tr>
<tr>
<td>b)</td>
<td>25 cm³ =</td>
</tr>
<tr>
<td>c)</td>
<td>0.25 m³ =</td>
</tr>
</tbody>
</table>

- ex: 1 cm³ = 1 000 mm³

### 7. Some of the things you use on the job may be measured in different metric units. Practice finding metric equivalents by completing these statements:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>a)</td>
<td>500 cm of yarn is ___                ___ m</td>
</tr>
<tr>
<td>b)</td>
<td>250 ml of water is ___              ___ l</td>
</tr>
<tr>
<td>c)</td>
<td>60 mm hem is ___                   ___ cm</td>
</tr>
<tr>
<td>d)</td>
<td>0.5 kg cutting shears is ___        ___ g</td>
</tr>
<tr>
<td>e)</td>
<td>30 cm of lace is ___               ___ mm</td>
</tr>
<tr>
<td>f)</td>
<td>40 g thimble is ___                ___ kg</td>
</tr>
<tr>
<td>g)</td>
<td>500 ml of machine oil is ___        ___ l</td>
</tr>
<tr>
<td>h)</td>
<td>4 cm needle is ___                  ___ mm</td>
</tr>
<tr>
<td>i)</td>
<td>1.6 m body height is ___            ___ cm</td>
</tr>
<tr>
<td>j)</td>
<td>0.5 m² of fabric is ___             ___ cm²</td>
</tr>
<tr>
<td>k)</td>
<td>2.1 l of water is ___               ___ ml</td>
</tr>
<tr>
<td>l)</td>
<td>30 cm cutting shears are ___        ___ mm</td>
</tr>
<tr>
<td>m)</td>
<td>10 m of hem tape is ___             ___ cm</td>
</tr>
<tr>
<td>n)</td>
<td>20 mm diameter button is ___        ___ cm</td>
</tr>
<tr>
<td>o)</td>
<td>125 g of heavy sewing machine      ___ g</td>
</tr>
<tr>
<td>p)</td>
<td>lubricant is ___                    ___ kl</td>
</tr>
</tbody>
</table>

### 8. Use your knowledge of metric volume and mass relationships to complete the following statements:

- A one litre container would have a volume of ___ cm³ and would hold ___ kg of water. A 50 litre container would hold ___ kg of water.
- A 1 cm³ volume would hold ___ ml of water which would be equivalent to ___ g. A 250 ml volume of water would have a mass of ___ g.

### 9. Find the mass of 250 ml of sugar (or some substance other than water).

Were the results more, less, or the same as the mass of 250 ml of water? Can you explain your results?
OBJECTIVE

The student will recognize and use instruments, tools, and devices for measurement tasks in this occupation.

- Given metric and Customary tools, instruments, or devices, differentiate between metric and Customary.
- Given a measurement task, select and use an appropriate tool, instrument or device.
- Given a metric measurement task, judge the metric quantity within 20% and measure within 2% accuracy.

SUGGESTED TEACHING SEQUENCE

1. Assemble metric and Customary measuring tools and devices (rules, scales, °C thermometer, tapes, hem gages) and display in separate groups at learning stations.
2. Have students examine metric tools and instruments for distinguishing characteristics and compare them with Customary tools and instruments.
3. Have students verbally describe characteristics.
4. Present or make available Information Sheet No. 3.
5. Mix metric and Customary tools or equipment at learning station. Give students Exercises 5 and 6.

SELECTING AND USING METRIC INSTRUMENTS, TOOLS AND DEVICES

Selecting an improper measuring tool or misreading a gauge can result in failure to obtain fit and maintain style and quality workmanship. For example, shortening a hemline 3 inches rather than 3 centimetres will result in an unsatisfactory fit. Here are some suggestions:

1. Find out in advance whether Customary or metric units or equipment are needed for a given task.
2. Examine the tool or instrument before using it.
3. The metric system is a decimal system. Look for units marked off in whole numbers, tens or tenths, hundreds or hundredths.
4. Look for metric symbols on the tapes, rules or gauges—cm, mm, m.
5. Look for decimal fractions (0.25) or decimal mixed fractions (2.50) rather than common fractions (3/8) on tapes, rules and gauges.
6. Practice selecting and using tools, instruments and devices.
WHICH TOOLS FOR THE JOB?

Practice and prepare to demonstrate your ability to identify, select, and use metric-scaled tools and instruments for the tasks given below. You should be able to use the measurement tools to the appropriate precision of the tool, instrument, or task.

1. Cut thread the proper length for hemming a garment.
2. Measure an even hem allowance.
3. Trim an even seam allowance to be at least 1 cm wide and not more than 1.5 cm.
4. Mark an even hem to be 50 cm from the floor.
5. Stitch a garment side seam to be 5 mm larger than it already is stitched.
6. Make minor repairs to a sewing machine.
7. Estimate the cost to a customer for repairing a burn or moth hole.
8. Select elastic for a waistband.
9. Select a zipper.
10. Measure the chest or bust of a customer.
11. Check a shipment of plastic bagging material which was purchased by mass.
12. Alter the sleeve length on a man's coat.
13. Press mark an even hem allowance.
14. Measure even spaces between tucks, buttons, snaps, and pleats.
15. Collect prepaid shipping costs for mailing a customer's suit after alteration.

MEASURING UP IN CLOTHING ALTERATIONS

For the tasks below, estimate the metric measurement to within 20% of actual measurement, and verify the estimation by measuring to within 2% of actual measurement.

<table>
<thead>
<tr>
<th>Task Description</th>
<th>Estimate</th>
<th>Verify</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seem allowance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Length of hem tape</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zipper length</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dart length</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Width of hem allowance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sleeve length</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pants inseam length</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stitches per centimetre</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of machine basting stitches per centimetre</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mass of a box of dressmaker's pins</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Volume of cleaning fluid in a partly-filled container</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Width of elastic for a waistband</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chest or bust size of another person</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mass of a roll of paper used in the trade</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Exercise No. 5

Exercise No. 6
OBJECTIVE

The student will recognize and use metric and Customary units interchangeably in making clothing alterations and ordering supplies.

- Given a Customary (or metric) measurement, find the metric (or Customary) equivalent on a conversion table.
- Given a Customary unit, state the replacement unit.
- Given a metric (or Customary) amount, state the approximate Customary (or metric) amount.

SUGGESTED TEACHING SEQUENCE

1. Assemble packages and containers of materials used in this occupation.
2. Present or make available Information Sheet No. 4 and Table 3.
3. Have students find approximate metric-Customary equivalents by using Exercise No. 7.
4. Test performance by using Section D of "Testing Metric Abilities."

METRIC-CUSTOMARY EQUIVALENTS

During the transition period there will be a need for finding equivalents between systems. Conversion tables list calculated equivalents between the two systems. When a close equivalent is needed, a conversion table can be used to find it. Follow these steps:

1. Determine which conversion table is needed.
2. Look up the known number in the appropriate column; if not listed, find numbers which add to give the number.
3. Read the equivalent(s) from the next column; adding readings if more than one is required.

Table 3 gives an example of a metric-customary conversion table which you can use for practice in finding approximate equivalents.

<table>
<thead>
<tr>
<th>APPROXIMATE METRIC-CUSTOMARY EQUIVALENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 metre is a little more than 1 yard.</td>
</tr>
<tr>
<td>1.5 km is about 1 mile.</td>
</tr>
<tr>
<td>30 cm is about 1 foot.</td>
</tr>
<tr>
<td>25 mm is about 1 inch.</td>
</tr>
<tr>
<td>1 litre is a little more than 1 quart.</td>
</tr>
<tr>
<td>250 ml is about 1 cup.</td>
</tr>
<tr>
<td>30 ml is about 1 fluid ounce.</td>
</tr>
<tr>
<td>1 kilogram is a little more than 2 pounds.</td>
</tr>
<tr>
<td>30 g is about 1 ounce.</td>
</tr>
<tr>
<td>1 hectare is about 2.5 acres.</td>
</tr>
</tbody>
</table>
### CONVERSION TABLES

#### MILLIMETRES AND CENTIMETRES TO INCHES

<table>
<thead>
<tr>
<th>mm</th>
<th>cm</th>
<th>in.</th>
<th>mm</th>
<th>cm</th>
<th>in.</th>
<th>mm</th>
<th>cm</th>
<th>in.</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>10.0</td>
<td>3.9</td>
<td>10</td>
<td>1.0</td>
<td>.4</td>
<td>1</td>
<td>0.1</td>
<td>.04</td>
</tr>
<tr>
<td>200</td>
<td>20.0</td>
<td>7.9</td>
<td>20</td>
<td>2.0</td>
<td>.8</td>
<td>2</td>
<td>0.2</td>
<td>.08</td>
</tr>
<tr>
<td>300</td>
<td>30.0</td>
<td>11.8</td>
<td>30</td>
<td>3.0</td>
<td>1.2</td>
<td>3</td>
<td>0.3</td>
<td>0.12</td>
</tr>
<tr>
<td>400</td>
<td>40.0</td>
<td>15.7</td>
<td>40</td>
<td>4.0</td>
<td>1.6</td>
<td>4</td>
<td>0.4</td>
<td>0.16</td>
</tr>
<tr>
<td>500</td>
<td>50.0</td>
<td>19.7</td>
<td>50</td>
<td>5.0</td>
<td>2.0</td>
<td>5</td>
<td>0.5</td>
<td>0.20</td>
</tr>
<tr>
<td>600</td>
<td>60.0</td>
<td>23.6</td>
<td>60</td>
<td>6.0</td>
<td>2.4</td>
<td>6</td>
<td>0.6</td>
<td>0.24</td>
</tr>
<tr>
<td>700</td>
<td>70.0</td>
<td>27.6</td>
<td>70</td>
<td>7.0</td>
<td>2.8</td>
<td>7</td>
<td>0.7</td>
<td>0.28</td>
</tr>
<tr>
<td>800</td>
<td>80.0</td>
<td>31.5</td>
<td>80</td>
<td>8.0</td>
<td>3.2</td>
<td>8</td>
<td>0.8</td>
<td>0.32</td>
</tr>
<tr>
<td>900</td>
<td>90.0</td>
<td>35.4</td>
<td>90</td>
<td>9.0</td>
<td>3.5</td>
<td>9</td>
<td>0.9</td>
<td>0.35</td>
</tr>
<tr>
<td>1000</td>
<td>100.0</td>
<td>39.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### INCHES TO MILLIMETRES AND CENTIMETRES

<table>
<thead>
<tr>
<th>in.</th>
<th>mm</th>
<th>cm</th>
<th>in.</th>
<th>mm</th>
<th>cm</th>
<th>in.</th>
<th>mm</th>
<th>cm</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
<td>25.4</td>
<td>25.4</td>
<td>1</td>
<td>25.4</td>
<td>2.5</td>
<td>1/8</td>
<td>3.2</td>
<td>0.3</td>
</tr>
<tr>
<td>20</td>
<td>50.8</td>
<td>50.8</td>
<td>2</td>
<td>50.8</td>
<td>5.1</td>
<td>1/4</td>
<td>6.4</td>
<td>0.6</td>
</tr>
<tr>
<td>30</td>
<td>76.2</td>
<td>76.2</td>
<td>3</td>
<td>76.2</td>
<td>7.6</td>
<td>3/8</td>
<td>9.5</td>
<td>1.0</td>
</tr>
<tr>
<td>40</td>
<td>101.6</td>
<td>101.6</td>
<td>4</td>
<td>101.6</td>
<td>10.2</td>
<td>1/2</td>
<td>12.7</td>
<td>1.3</td>
</tr>
<tr>
<td>50</td>
<td>127.0</td>
<td>127.0</td>
<td>5</td>
<td>127.0</td>
<td>12.7</td>
<td>5/8</td>
<td>15.9</td>
<td>1.6</td>
</tr>
<tr>
<td>60</td>
<td>152.4</td>
<td>152.4</td>
<td>6</td>
<td>152.4</td>
<td>15.2</td>
<td>3/4</td>
<td>19.1</td>
<td>1.9</td>
</tr>
<tr>
<td>70</td>
<td>177.8</td>
<td>177.8</td>
<td>7</td>
<td>177.8</td>
<td>17.8</td>
<td>7/8</td>
<td>22.2</td>
<td>2.2</td>
</tr>
<tr>
<td>80</td>
<td>203.2</td>
<td>203.2</td>
<td>8</td>
<td>203.2</td>
<td>20.3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>90</td>
<td>228.6</td>
<td>228.6</td>
<td>9</td>
<td>228.6</td>
<td>22.9</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### CUSTOMARY-METRIC ZIPPER LENGTHS (Available Zipper Lengths)

<table>
<thead>
<tr>
<th>in.</th>
<th>cm</th>
<th>in.</th>
<th>cm</th>
<th>in.</th>
<th>cm</th>
<th>in.</th>
<th>cm</th>
</tr>
</thead>
<tbody>
<tr>
<td>30</td>
<td>75</td>
<td>22</td>
<td>55</td>
<td>14</td>
<td>35</td>
<td>8</td>
<td>20</td>
</tr>
<tr>
<td>28</td>
<td>70</td>
<td>20</td>
<td>50</td>
<td>12</td>
<td>30</td>
<td>7</td>
<td>18</td>
</tr>
<tr>
<td>25</td>
<td>65</td>
<td>18</td>
<td>45</td>
<td>10</td>
<td>25</td>
<td>6</td>
<td>15</td>
</tr>
<tr>
<td>24</td>
<td>60</td>
<td>16</td>
<td>40</td>
<td>9</td>
<td>22</td>
<td>5</td>
<td>12</td>
</tr>
</tbody>
</table>

---

Table 3

THE CENTER FOR VOCATIONAL EDUCATION
ANY WAY YOU WANT IT

1. You are an alterations specialist in a department store. With the change to metric measurement some patterns, fabric, directions and notions used in clothing alterations will be available only in metric sizes. You will need to be familiar with approximate Customary equivalents in order to select correct pattern sizes and quantities of supplies for proper fit, drape and style in garment construction. You will also need Customary equivalents to order supplies in metric units. To develop your skill, use Table 3 and give the approximate metric quantity (both numbers and unit) for each of the following Customary quantities.

<table>
<thead>
<tr>
<th>Customary Quantity</th>
<th>Metric Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 1/2 ft. hem tape</td>
<td>cm.</td>
</tr>
<tr>
<td>3 in. hem</td>
<td>cm</td>
</tr>
<tr>
<td>1/2 in. seam allowance</td>
<td>cm</td>
</tr>
<tr>
<td>3/4 in. button</td>
<td>cm</td>
</tr>
<tr>
<td>5 yds. of wool</td>
<td>cm</td>
</tr>
<tr>
<td>12 in. by 24 in. box</td>
<td>cm</td>
</tr>
<tr>
<td>4 oz. tube of heavy lubricant</td>
<td>cm</td>
</tr>
<tr>
<td>1 pt. of sewing machine oil</td>
<td>cm</td>
</tr>
<tr>
<td>20 yd. spool of thread</td>
<td>cm</td>
</tr>
<tr>
<td>2 oz. ball of linen thread</td>
<td>cm</td>
</tr>
<tr>
<td>2 in. needle</td>
<td>cm</td>
</tr>
<tr>
<td>4 fl. oz. of spotting solution</td>
<td>cm</td>
</tr>
<tr>
<td>4 in. wide sponge</td>
<td>cm</td>
</tr>
<tr>
<td>2 gal. can of cleaning fluid</td>
<td>cm</td>
</tr>
<tr>
<td>30 in. pants inseam</td>
<td>cm</td>
</tr>
</tbody>
</table>

2. Use the conversion tables from Table 3 to convert the following:

<table>
<thead>
<tr>
<th>Customary Quantity</th>
<th>Metric Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 mm = in.</td>
<td>30 in. = cm</td>
</tr>
<tr>
<td>81 cm = in.</td>
<td>24 in. = cm</td>
</tr>
<tr>
<td>30 cm = in.</td>
<td>4 in. = cm</td>
</tr>
<tr>
<td>22 mm = in.</td>
<td>5/8 in. = mm</td>
</tr>
</tbody>
</table>

3. Complete the Requisition Form using the items listed. Convert the Customary quantities to metric before filling out the form. Complete all the information (Date, For, Job, etc.). Order the following alterations specialist supplies:

- 1 doz. 10 in. zippers
- 25 yds. of seam tape
- 1 gal. cleaning fluid
- 4 lbs. of dressmaker's pins
- Two 1 pt. cans of sewing machine oil
- 1/2 doz. 4 in. seam rippers

REQUISITION

For __________________________
Job __________________________ Date Wanted __________________________
 Deliver to __________________________

<table>
<thead>
<tr>
<th>QTY</th>
<th>UNIT</th>
<th>ITEM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Requested by __________________________
Approved by __________________________
REFERENCES

At Home with Metric Measuring. (Kit) Butterick Publishing, P.O. Box 1945, Altoona, PA 16603, 1974, 1 filmstrip (color), 1 audio casette, Teacher's Manual (28 pages), 2 wall charts, measuring cup, gram scale, thermometer, measuring tape, sheet cf 48 individual metric adhesive labels for sewing machine throat plate: metric equivalency chart, $75.00.

Appealing, easy-to-use, activity-based, resource kit for secondary homemaking and consumer education. Focuses on advantages of the metric system in sewing and cooking. Teacher guide includes content for teacher, references, filmstrip questions, 18 pages of reproducible activity sheets to familiarize students with basic metric units in consumer and homemaking situations, and an answer sheet. Contains a chart for matching pattern sizes and metric body measurements.

Measuring with Meters, or, How to Weigh a Gold Brick with a Meter Stick. Metrication Institute of America, P.O. Box 236, Northfield, IL 60093, 1974, 23 min., 16 mm, sound, color; $310.00 purchase, $31.00 rental.

Film presents units for length, area, volume and mass, relating each unit to many common objects. Screen overprints show correct use of metric symbols and ease of metric calculations. Relationships among metric measures of length, area, volume, and mass are illustrated in interesting and unforgettable ways.


Comprehensive bibliography of instructional materials, reference materials and resource list for secondary, post-secondary, teacher education, and adult basic education. Instructional materials indexed by 15 occupational clusters, types of materials, and educational level.


Paper for teachers, curriculum developers, and administrators in vocational, technical and adult education. Covers issues in metric education, the metric system, the impact of metrication on vocational and technical education, implications of metric instruction for adult basic education, and curriculum and instructional strategies.

Metrics in Career Education. Lindbeck, John R., Charles A. Bennett Company, Inc., 809 W. Detwiler Drive, Peoria, IL 61614, 1975, 103 pages, $3.60, paper; $2.70 quantity school purchase.

Presents metric units and notation in a well-illustrated manner. Individual chapters on metric in drafting, metalworking, woodworking, power and energy, graphic arts, and home economics. Chapters followed by several learning activities for student use. Appendix includes conversion tables and charts.

SI... A Metric Workbook for Teachers of Consumer and Homemaking Education. Carole Bielefeld, compiler, Orange County Department of Education, P.O. Box 11846, Santa Ana, CA 92711, 1973, 70 pages and 35 pages of transparency masters, $1.50, paper.

Workbook in easy-to-use format for instructors in consumer and homemaking education at the secondary level. Includes: brief history of the metric system, transparency presentation with narration on length, volume, and mass. Has learning-by-doing exercises with pre-test and post-test. Contains a chart for matching pattern sizes to metric body measurements.

METRIC SUPPLIERS

Dick Blick Company, P.O. Box 1267, Galesburg, IL 61401.

Instructional quality rules, tapes, metre sticks, cubes, height measures, trundle wheels, measuring cups and spoons, personal scales, gram/kilogram scales, feeler and depth gauges, beakers, thermometers, kits and other aids.

Ohaus Scale Corporation, 29 Hanover Road, Florham Park, NJ 07932.

Instructional quality and commercial precision balances and scales, plastic calipers and stackable gram cubes for beginners.

INFORMATION SOURCES

American National Metric Council, 1625 Massachusetts Avenue, N.W., Washington, DC 20036.

Charts, posters, reports and pamphlets, Metric Reporter newsletter. National metric coordinating council representing industry, government, education, professional and trade organizations.


Free and inexpensive metric charts and publications, also lends films and displays.

METRIC SUPPLIERS

Dick Blick Company, P.O. Box 1267, Galesburg, IL 61401.

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INFORMATION SOURCES

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INFORMATION SOURCES
1. Characteristics of document type

The document contains six articles that treat the topic of the dual barrier of sexism and racism. The purpose of this document on multicultural education is stated in several places. The first paragraph in the foreword states, "This...series...treats the convergence of two pernicious social maladies--racism and sexism--and suggests implications for teacher education efforts to mitigate these ills." On page 5, the first article declares, "The intent of this discussion is to help teacher educators more effectively present information about minority women...." The first paragraph of the last article on page 29 summarizes, "Each of the foregoing articles gives consideration to the involvement of minority women in the women's movement."

A document containing a collection of articles calls for an indicative abstract because the document contains high density information that best lends itself to a brief description of each article. As you recall, the indicative abstract tells what the document discusses and how it is presented. It is a broad guide to the document's contents.
Many documents of this type go into the ERIC system. In most cases, the documents are well-structured and need not be read in their entirety. Documents of this type usually focus on a particular topic or aspects of a topic, and normally include a Foreword or Preface, a Table of Contents listing title and author, an Introduction or introductory article, the articles themselves, a concluding article, and a Bibliography. This particular document includes all of the above except a Bibliography.

2. What a practiced eye will look for in a multiple-authored document

Before you begin writing your abstract, quickly scan the entire document. Be alert to the possibility of one part, usually either an introductory or concluding section, which summarizes the important ideas of the document, thereby saving the time that it would take to read the entire document. Pay special attention to the Table of Contents which can provide a framework for the abstract.

Since the document is so well-structured, the entire document need not be read. First, the abstractor should examine the Foreword and Table of Contents, which provide information on the scope, purpose, format, and subject matter of the document. Second, the abstractor may briefly scan the introductory article, and examine very quickly the other four articles, perhaps reading only introductory topic sentences of the paragraphs. The concluding article should be scanned. By scanning very briefly the Foreword, the Table of Contents, Introduction, and Conclusion, the abstractor

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can identify the section which may summarize the document, thereby eliminating the need to read it in its entirety. For example, after scanning this particular document, it will be noted that the first paragraph in the concluding article on page 29 summarizes each article very nicely.

You may now remove the document on multicultural education located at the end of this analysis and begin to abstract and index it. After you have finished, return to and read the remaining sections.

3. Parts of the document on which the abstract should be based

The Foreword (page 4) describes the scope/purpose of the document and provides information needed for a good topic sentence: "The monograph treats the convergence of racism and sexism and suggests implications for teacher education efforts."

The major part of the indicative abstract for this document can be based on the Table of Contents, the introductory article, or the concluding article. Actually, this type of document lends itself to alternatives in abstracting style among which the abstractor may choose, basing his abstract on any of the three sections above. Such alternatives are more fully discussed in the fifth part of this analysis, "Discussion of stylistic alternatives."

An efficient way to write an abstract is to base it on the Table of Contents which serves as the framework, with details coming from the text
of the document. "The six articles are: (1) 'Minority Women and the Women's Movement' by Ann M. Schlitt; (2) 'American Indian Women' by Kathleen A. Hunter; (3) ...."

Another way to write your indicative abstract is to base it on the introductory article which describes the other five articles. The last two paragraphs on page 6 provide a synthesis of the document, "The monograph contains succinct observations about Chicana, Native American, Black American...."

The abstract could also be based on the concluding section which captures the thrust of the entire document. On page 29, a succinct summary is provided.

Each of the foregoing articles gives consideration to the involvement of minority women in the women's movement. The individual authors speak to the unique relationship that exists between their respective ethnic/cultural groups and the focus of the current struggle against sexism. In "Minority Women and the Women's Movement," Ann Schlitt states, .... In "Understanding the Chicana," Isabel Salas suggests, ....

Because of the need to weight the abstract according to the emphases in the document, it is important not to base an entire abstract on any one section. The sample abstract below clearly shows on which parts of the document the abstractor chose to base the abstract.
The monograph treats the convergence of racism and sexism and suggests implications for teacher education efforts to alleviate these ills.

The six articles give succinct observations about Chicana, Native American, Black American, and Japanese American women from the perspective of each writer. Each has a unique message shaped in part by her ethnicity and culture.

The articles discuss: minority women and the Women's Movement; the American Indian woman as the communal woman, the gentle woman, and the whole woman; Indian Parent Councils; the Chicana from the Anglo view and the Chicana's view; the Women's Movement as seen by Chicanas; a unified movement by Black American women; and a perspective on liberation by Japanese American women.

A final section considers the viewpoints presented and explores considerations for teacher education as they relate to the needs of minority women. General guidelines are suggested to assist in establishing and developing teacher education programs that reflect multicultural approaches and content.

4. Essential features of the content of the abstract

The following elements should be included in the abstract:

a. A statement of subject and scope (which may be a topic sentence):

   The monograph treats the convergence of racism and sexism and suggests implications for teacher education efforts to alleviate these ills.

b. Prose Table of Contents:

   The articles discuss: minority women and the Women's Movement; the American Indian woman....

   The topic sentences of the sample abstracts describe the scope, purpose, and content of the document in one concise statement. The major emphasis of the three abstracts focuses on the content and meaning of each of the six articles, as it should when the content is weighted in the same proportion.
as the document. Because the final article presents a succinct summarizing approach to multicultural teacher education programs emphasizing a perspective of all minority groups' viewpoints, more emphasis is put upon it than the other articles. It is described more thoroughly in all three of the abstracts.

Sample Abstract #1

The monograph treats the convergence of racism and sexism and suggests implications for teacher education efforts to alleviate these ills. The six articles give succinct observations about Chicana, Native American, Black American, and Japanese American women from the perspective of each writer. Each has a unique message shaped in part by her ethnicity and culture. The articles discuss minority women and the Women's Movement; the American Indian woman as the communal woman, the gentle woman, and the whole woman; Indian Parent Councils; the Chicana from the Anglo view and the Chicana's view; the Women's Movement as seen by Chicanas; a unified movement by Black American women; and a perspective on liberation by Japanese American women. A final section considers the viewpoints presented and explores considerations for teacher education as they relate to the needs of minority women. General guidelines are suggested to assist in establishing and developing teacher education programs that reflect multicultural approaches and content.

Sample Abstract #2

Suggesting that the victimization of minority women by racism and sexism can be alleviated by providing prospective teachers with a multicultural perspective, the document offers six articles dealing with minority women. The articles explore ethnic differences and similarities among American Indian, Black American, Japanese American, and Chicana women and suggests ways in which teacher educators can develop and implement multicultural programs. Multicultural education is interpreted as education that will prepare individuals to recognize, understand, and appreciate the culturally diverse nature of the United States. The first article stresses the need to study feminism and women's liberation from a multicultural perspective. The second article discusses varieties of experience of American Indian women due to tribal custom, geographic location, and role perception. The third article examines the Anglo view and the Chicana view of the Mexican American woman. The fourth article
identifies strengths of Black women, including strong kinship
bonds, strong work and achievement orientation, and adaptability
to changing family roles. The fifth article presents perspectives
on liberation of Japanese American women, drawn from recent
literature. The final article presents an overview of comments
in preceding articles and offers guidelines for multicultural
teacher education programs.

Sample Abstract #3

Emphasizing the importance of multicultural approaches to teacher
education, the six articles in this monograph describe the dual
impact of sexism and racism upon minority women. "Minority Women
and the Women's Movement" (by Ann M. Schlitt) emphasizes the need
for all women to develop positive self-images which allow for
cultural diversity/expression. "American Indian Women" (by Kath-
leen A. Hunter) describes the diversity among women in the Amer-
ican Indian community and discusses the role of Indian Parent
Councils and teacher education in confronting racism and sexism.
"Understanding the Chicana" (by Isabel Sales) discusses the Anglo
view, the Chicana's self-view, the impact of the women's movement,
and the importance of multicultural teacher education. "To Know
Black Women" (by Gwendolyn C. Baker) emphasizes unity within
all minority movements and the importance of education for diver-
sity. "Japanese-American Women: A Perspective on Liberation"
(by Linda J. Murakishi) describes the necessity for liberation
of both Japanese men and women, the need for self-acceptance, and
the importance of teacher education. "New Directions for Ensuring
Equality" (by Gwendolyn C. Baker) presents guidelines for teacher
education programs which include: acknowledgment of, recognition
of, and exposure to ethnic and cultural diversity; preservice and
inservice teacher training regarding positive cultural variants;
focus upon ethnic/cultural groups within the U.S.; and training
for the development of instructional techniques, strategies, and
materials supporting multicultural concepts.

5. Discussion of stylistic alternatives

In writing an indicative abstract, the abstractor needs to make some
judgment about what stylistic approach to use. The abstractor may take:
(a) a broad view of the document and describe the contents generally; (b) a
narrow view, providing a skeletal framework, listing such things as titles
and authors; or (c) a balance of the broad and narrow, identifying and
describing each article.
Sample #1 takes a broader view. Rather than identifying and listing titles and authors, the abstractor briefly describes the content of the articles. This can allow for a more concise abstract that includes all of the essential information. When titles do not reflect the content and meaning of the articles, the titles should not be listed. (Not the case in this document, however, because the titles reflect content.) In addition, lists of titles are sometimes awkward to read.

Sample abstract #2 is a balance between the broad and narrow abstract; it identifies and describes each paper, introducing each article with the phrase..."The [first] article...."

Sample abstract #3 illustrates a more narrow approach, although it is not completely narrow. The six articles are listed by title and author, and a brief description of each article is included. This kind of style is effective when prominent authors need to be pointed out, for example, articles by authors such as Piaget.

A very narrow approach, by comparison, would include only a skeletal framework. A good part of the abstract would contain information taken from the Table of Contents and would list tables and authors with very little or no description of content. This kind of approach is effective when the titles reflect the content and when there are many articles that need to be listed.

Sentence Structure

In the three sample abstracts, the abstractors vary the length of their complete sentences, thereby eliminating monotony. This is especially
true in sample abstract #1. The second sample abstract is somewhat monotonous in repetitiously describing the six articles... "The first article..."; "The second article..." The third sample abstract begins sentences with the article titles which effectively delineates the contents.

Voice/Tense/Vocabulary

The voice used in all three sample abstracts is active, e.g., "The monograph treats," "The articles explore." Although it is permissible to use the passive voice in an indicative abstract, the active voice is more forceful and interesting to read. Passive voice is often wordy, unclear, and dull. Sometimes, however, meaning demands the use of the passive voice.

The use of present tense, used in all of the sample abstracts, is preferred for an indicative abstract.

Key words from the document are incorporated into the abstract: "racism and sexism," "Chicana," "Native American," "Women's Movement," "feminism," "minority women." Some of these terms are not descriptors themselves but are synonymous to descriptors in the system. Using these key words is very helpful to someone who is doing a text search.

6. Indexable Concepts

Teachers

*TEACHER EDUCATION is the most specific descriptor and should be used; the document suggests ways in which teacher education can help alleviate racism and sexism.
Women

The Thesaurus directs the indexer to use FEMINISM for "Womens Liberation" and "Womens Rights." Because the articles in this publication focus on these concepts, FEMINISM should be a major descriptor. The articles also discuss the roles and cultural values of minority group women, and FEMALES should be a minor descriptor.

Minorities and Culture

Four descriptors identifying the minority groups which the abstractor could use to index the document are precoordinated: AMERICAN INDIAN CULTURE, JAPANESE AMERICAN CULTURE, HISPANIC AMERICAN CULTURE, and BLACK CULTURE. The introduction in the 1980 published edition of the Thesaurus states that "Precoordinated (i.e., multiple-word) descriptors are used whenever possible, rather than two or more descriptors representing their component concepts." Thus, for example, the precoordinated descriptor AMERICAN INDIAN CULTURE should be used rather than AMERICAN INDIANS and CULTURE. The precoordinated minority terms with "culture" are also the most specific. Since identifying these four specific minority group descriptors as majors would mean eliminating some other major descriptors needed to identify the document, the broader descriptor *MINORITY GROUPS is used as a major. The specific minority group descriptors which are precoordinated with "culture" are then listed as minors.

Note, however, that the Thesaurus says "'Mexican American Culture', use HISPANIC AMERICAN CULTURE and MEXICAN AMERICANS." Therefore, MEXICAN AMERICANS must be included in the indexing to reflect the specificity level of this document.
The document focuses on the concept of multicultural education. MULTICULTURAL EDUCATION is a descriptor and should be used as a major since it is the most specific descriptor. The document explores cultural differences and similarities among the minority groups, therefore CULTURAL BACKGROUND and CULTURAL DIFFERENCES are minor descriptors. Also, since the essays are intended to help others recognize and understand minority women, CULTURAL AWARENESS is used as a minor descriptor.

Racism/Sexism

The document offers guidelines for teachers who want to eliminate racism and sexism. RACISM is an invalid descriptor; SEXISM is not a descriptor. The two parallel terms chosen are RACIAL BIAS and SEX JI AS. These were made minor descriptors.

Identifier: Chicanas

CHICANAS reflects the language used in the document. It is an identifier which is listed in the Identifier Authority List.

Mandatory Educational Level

This document is directed primarily toward teacher educators to help them "more effectively present information about minority women." Therefore, indexers should assume that the proper mandatory leveling descriptor is HIGHER EDUCATION.

Pub Type Code

The document is a collection of articles, and the appropriate Pub Type code is 120.
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Multicultural Education:
Teaching About Minority Women

Gwendolyn C. Baker
Kathleen A. Hunter
Linda J. Murakishi
Isabel Salas
Ann M. Schlitt

ERIC Clearinghouse on Teacher Education
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Washington, D.C. 20036

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FOREWORD

This eighth in the series of Special Current Issues Publications (SCIPs) treats the convergence of two pernicious social maladies—racism and sexism—and suggests implications for teacher education efforts to mitigate these ills. The minority woman is victimized because of both her sex and her ethnicity. Often, indeed, she is forced to come to grips with internal conflicts generated when she accepts an active part in the two liberation movements: whereas feminists strive toward goals articulated by Anglo leaders, cultural distinctions may very well dictate other priorities for minority women.

The authors of this monograph view both of these social struggles from the unique perspectives of their individual ethnic contexts. Clearly, racism and sexism are seen as dual barriers to be overcome by the concerted energies of both men and women of all ethnic groups. To that end, teacher education programs must incorporate strategies to instill sensitivities—and practical techniques—for effecting social change.

The authors are well qualified to speak to these concerns:

Gwendolyn C. Baker, Associate Professor of Education, Director of Affirmative Action Programs, University of Michigan, Ann Arbor
Kathleen H. Hunter, Program Analyst for American Indian Education, Michigan Department of Education, Lansing
Linda J. Murakishi, a student at the University of Michigan, Ann Arbor, and a staff member of the University's Affirmative Action Programs
Isabel Salas, Assistant Professor, Chicano-Boricua Studies, Wayne State University, Detroit, Michigan
Ann M. Schlitt, Program Associate for Women's Concerns/Affirmative Action Programs, University of Michigan, Ann Arbor.

The Clearinghouse is grateful to these authors for their contributions to this publication. Reader reactions or suggestions are welcome.

Karl Massanari
Director, ERIC Clearinghouse on Teacher Education
MINORITY WOMEN AND THE WOMEN'S MOVEMENT

ANN M. SCHLITT

The intent of this discussion is to help teacher educators more effectively present information about minority women, primarily to non-minority students. A teacher education program that incorporates a multicultural component, or has an integrated approach, is necessary to make education relevant to all people in a culturally diverse society.

Multicultural education, as viewed by the writers, is education that will prepare individuals to recognize, understand, and appreciate the culturally diverse nature of this country. From our perspective, a multicultural approach differs from a multiethnic one. Multiethnic education focuses primarily on content unique to specific ethnic groups. Multicultural education is more inclusive, in that its broad interpretation of "cultural group" allows for the study of all groups in the United States. It is an encompassing approach to education based on the notion that group-related issues and problems can best be understood when the ethnic components and experiences are considered within the framework of the larger cultural group.

More specifically, women comprise a cultural group; therefore, a study of the women's movement falls under the domain of multicultural education and multicultural teacher education. Because the study of women is appropriate from the multicultural perspective, it becomes important to explore the differences and similarities based on ethnicity that exist among women. It is also imperative to note that there is as much diversity within an ethnic group as there is between groups.

A distinctive feature of U.S. history has been the parallel between racism and sexism, both acting to relegate minorities and women to a secondary status in our society. The minority woman is caught in a double bind: she is the victim of both racist and sexist behaviors. A woman's response to the struggle against racism and sexism may be shaped in part by her ethnicity. Issues such as political participation, elimination of discrimination, equal pay for equal work, reproductive choice, child care, equal educational opportunities, media images, and economic opportunities take on different levels of priority. For instance,
Chicana activist Consuelo Nieto sees support from many Chicanas as the women's movement relates to equity in pay and job opportunities. "Yet for some, particularly the non-activists, the closer the movement comes to their personal lives, the more difficult it becomes to tear themselves away from the kinds of roles they have filled." 1

Some women see the struggle for racial equality as their primary concern. Many Native American women believe their total efforts must be directed toward improving the status of Indians as a people. Minerva White, a Seneca, said, "We have had women's liberation for five thousand years . . . and so that is not an issue for us." 2 Other women view the movement for equal opportunity and the right of self-determination as compatible goals for all women.

The study of feminism or women's liberation can be meaningful only if it is multicultural. It must recognize the need for positive images and self-concepts for all women and allow for the expression and appreciation of the diverse cultures that make up our society.

This monograph contains succinct observations about Chicana, Native American, black American, and Japanese-American women from the perspective of each writer. Each has a unique message shaped in part by her ethnicity and culture. Implications for teacher education are provided at the end of each discussion.

The final section considers the viewpoints presented and explores considerations for teacher education as they relate to the needs of minority women. General guidelines are suggested to assist in the establishment and development of teacher education programs that reflect multicultural approaches and content.


2 Quoted by Alice Sargent, in an unpublished paper, "Sex Role Issues for Minority Women."
There is no American Indian woman. There are Sioux women or, more specifically, Oglala Sioux women. There are Pueblo women or, more specifically, Isleta Pueblo women. And so on. Because identification with one's tribe is the fundamental awareness for American Indian people, self-concept is intimately associated with tribal concept. For Indian women this means their role expectations are modified by the tribal perception of a woman's role.

Vine Deloria, Jr., a Standing Rock Sioux lawyer, has explored the essential relationship of place to tribal religions and communities. In the book, *God Is Red*, he argues that the basic determiner and strength of a community, and its religion is the space in which it has come into existence—not the time of its events. "American Indians hold their lands--places--as having the highest possible meaning, and all their statements are made with this reference point in mind." Therefore, tribal life will be realized differently in different environments. We should assume that tribal role expectations of women will adapt as well. The large western reservations, the isolated rural settlements, and the urban centers will each nurture a value system and body of customs appropriate to that place.

In some instances, sex differentiation within a tribe is clear and controlled by law and custom. Many tribes, such as the Iroquois, Pueblo, and Cherokee, are matrilineal societies. The customs and traditions which facilitate and protect matrilineal organizations will reflect the unique cultural values and experiences of the tribe. While matrilineal societies provide us with a dramatic example of differing role expectations for Indian women, within each tribe there are sex role designations which are subtle and exclusive. For example, Indian grandmothers enjoy a respect and affection unique to their role.

Contemporary American Indian experience dictates a complex coexistence of protection for ancient tribal values and customs and utilization of necessary technological innovations. An Indian woman, trying to hold on to tribal

---

life, must realize her meaning and significance within this stressful context. As we risk some generalizations about these women and their life styles, we are not suggesting absolutes. What are presented are points of reference and a way of comparing the role expectations of some Indian women with non-Indian women.

THE COMMUNAL WOMAN

Individual achievement, personal rights, and control over one's own body are values of the women's rights movement. The New Woman's individualism is partly modeled on American male independence and capitalistic economics; it is also a response to the unhappy repressive nature of women's communal experiences. Placing women into groups has had more to do with control of property than a positive sanction of womanly responsibility and power. The "coming together of women" is a fearful and anxiety-producing event for American men, who see such gatherings as threatening their exclusive control and ownership of women.

Communal identity and individual identity are almost inseparable for Indian women who value their culture. In God Is Red, Deloria explains that the tribal community is a living presence as much as the individual. Neither the person nor the community is diminished by the other, but rather each is realized and enriched through the other. This relationship should not be seen as repressive of personality; the person, seeking a way of living in the world, is honored and respected. The worth of the community is to support the vision of self and to provide a context in which the person can actualize identity.

The conflict between individualism and communalism will create a hardship for the tribal woman. She may not respond to the same motivational forces as the non-Indian woman. In fact, she may even find herself having to cope with guilt and alienation should she attempt to pursue an individualistic approach to her life.

THE GENTLE WOMAN

Power and strength have different significance for Indian women than for non-Indian women. For a collection of unpublished poems, Dr. Robert K. Thomas, Cherokee scholar,
has written a poem entitled, "Where Have All the Tender Young Women Gone?" Thomas explores the loss of gentleness which has accompanied the exposure and activism of modern women. The quality of tenderness which Thomas perceives is not weakness, but rather a gentle free yielding of a powerful Earth. Earth is the essential nurturing core of life: it is strong and independent, and moves by principles which must not be violated. It can be fierce in its protectivism and awful in its retribution. For a reality this powerful to raise up life as delicate as sweet grass, as corn, as laurel, is truly an act of gentleness. In like manner, a tribal woman can be a gentlewoman, not out of weakness or as a gesture of submission, but as a statement of recognized strength and essential value.

Thus strength and power are not qualities which need to be wrestled away from unguarded men, but rather are intrinsic to the nature and role expectations of Indian women. When these women meet to discuss women's rights, it is assumed that they do have rights. The concern is how to exercise their responsibilities of leadership in keeping with their cultural values while developing and maintaining maximum effectiveness in a non-Indian society. Within the communal ecology it is essential that each member discover his or her power, and that this power be understood and used to sustain the life of all.

THE WHOLE WOMAN

Women's magazines devote their pages to helping the New Woman to be and to stay organized. Like the magazine itself, a woman is seen as a series of Departments: The Professional Woman, The Beautiful Woman, The Sexual Woman, The Healthy Woman, The Maternal Woman, and so on. Womanhood is not a role in itself, but a composite of roles. Magazine articles suggest that a woman should have two goals: (a) to know and perform each of these roles with perfection, and (b) to keep the roles discrete and unconfused. There are appropriate clothing, makeup, hairdos, and perfumes to go with each role to help keep them straight.

Now and then the magazines will rescue their readers with a consoling article on the difficulty of managing all of

4 By permission of the author, Dr. Robert K. Thomas, Wayne State University.
Tips are provided on how to get it all together: mix-and-match clothes that will get you through the whole day, casseroles for the working wife, isometrics for the professional woman. This is a lot like a good American garden with its fields of beans and fields of corn carefully planted side by side, draining the soil's nutrients. Again, the Earth provides the appropriate metaphor for the impossible situation in which American women find themselves. They have become an economic commodity valued in terms of productivity. When they are finally depleted, what parts of themselves will end in "soil banks" for regeneration?

American Indian people see the person as they see the Earth: a single interrelating system which must be understood as a whole—a circle. Like the sun, the moon, the seasons, and the directions, all things return to their beginning point, creating the whole. For the tribal woman, each of her experiences has value because it contributes to her sense of wholeness; she does not wish to fracture her life into exclusive components. To each event she carries all that she is as a result of past events. Her choices may differ from those of non-Indian women. Perhaps it will not be important to her to be able to do all things at once. Her goal may not be to say, "Look at all I have been able to do"; this is an economic concept. Her goal may be instead to say, "I want to interact with what I am doing now so that I may become a more total person"; this is a humanistic concept.

Indian Parent Councils

When we examine the actual situation of Indian women, it is obvious that the ancient values are struggling for survival. Like all American Indians, the women are frequently isolated from each other—alone in non-Indian communities, alone in school, alone in the classroom, alone on the job. Little tribal support sustains them and protects them from acculturation. Remembering ideals of tribal cohesiveness, community support, personal vision, and womanly gentleness, the Indian woman confronts a reality of shattering pluralism, isolation, private despair, and aggressive survival strategies. She is often unseen; therefore, there are no expectations for her.

Despite the multitude of handicaps, events indicate the old values will survive. There is a growing renewal of
tribal awareness and a creative adaptation of institutional structures to implement Indian self-determination.

One of the most hopeful movements in contemporary Indian affairs is the establishment of Indian Parent Councils within local school districts. In order to receive federal assistance under the Indian Education Act (ESEA Title IV, Part A, U.S. Office of Indian Education, Department of Health, Education, and Welfare), school districts must work cooperatively with an Indian Parent Council in the development, implementation, and evaluation of an Indian education program. These councils are not advisory committees, but policy-making bodies which share responsibility with the schools in all aspects of the program.

This innovative self-determination legislation provides legitimacy and status to Indian women in social action roles. Along with husbands, children, and grandparents, they are taking on leadership responsibilities within their communities. The sense of isolation is decreasing. An Indian woman may travel ten or twenty miles with her family for the monthly Parent Council meeting. At a given meeting, she might help the other Council members with a potluck supper, listen to a presentation on Indian Rural Health from the state coordinator, and help her mother teach the children beadcraft. She might vote with other members on whether to take their children to the statewide Indian Student Career Day, or whether to renew the teaching contract of the Indian cultural history teacher.

The councils are becoming the impetus for a renewed tribalism in which women of all ages are playing significant roles. Equally important, however, school district personnel are gaining a changed image of Indian women, with whom they will need to contend. These women are strong willed, and determined never again to relinquish their right to sustain and protect the values of their people.

IMPLICATIONS FOR TEACHER EDUCATION

Educators seeking to enrich the school curriculum and prepare sensitive teaching personnel would do well to begin their efforts right at home in cooperation with regional Parent Councils and Indian Centers. In the design of a teacher education program responsive to the American Indian
cultural values and patterns for women, at least four principles should guide decisions:

1. Educators must become sensitive to fundamental tribal characteristics which result from cultural values and historical experiences.

2. Teacher educators must prepare teachers planning to work with Indian female students to structure school activities which will support rather than violate community loyalty and collective activity.5

3. School personnel need to recognize that aggressiveness and assertiveness are not the only measures of strength, determination, or ability and that the quiet manner of an Indian female student possibly reflects its own courage and capacity.

4. Young Indian women have the awareness to teach the teachers that the quality of human experience and activity has greater total value than the more easily measured tasks usually presented students.6

5 This author has spoken with several school administrators who are concerned about school failure of Indian female students. While sports programs may hold young Indian men, there are no adequate communal experiences to hold Indian women in school.

UNDERSTANDING THE CHICANA

Isabel Salas

Now that multicultural education is finally gaining wide attention in the United States, social scientists and educators are attempting to understand the values and cultural characteristics of minority groups. Some of that attention has focused on minority women. In the case of Mexican-American women, or Chicanas as we prefer to call ourselves, there are two distinct views: one is the Anglo view, which is scientific; the other is the Chicana view, which is humanistic.

THE ANGLO VIEW

Widely publicized generalizations of Chicanas stop short of an accurate and full description for two reasons. First, analysis of research findings has been from a predominantly Anglo point of reference. Second, behavioral responses stemming from cultural stipulations are misunderstood. As a result, Chicanas are stereotyped as passive, resigned, and submissive women. Most maligned is the Chicano value system which is considered to be the cause of such behavior. No doubt a group's value system determines, among other things, its behavioral patterns. Distortions, however, are inevitable when polar sets of values are superimposed. Catholic collectivism, cooperation, and mutual dependence, values highly esteemed by Chicanas, cannot be properly interpreted using a frame of reference based on Protestant individualism, competition, and independence.

Chicanas reject these stereotypes. As members of the group in question, we need only observe how our grandmothers, our mothers, and the women in our communities actually behave in their daily lives. Passivity, submissiveness, and resig-


nation are not the outstanding characteristics we remember. Strength, determination, and endurance are more accurate descriptors. Admittedly, the Chicano culture imposes secondary status on women. Early female socialization instills passive-submissive behavior. Rural isolation maximized it in the past, but urbanization has reduced it drastically. Urban Chicana behavior is a mixture of cultural traditions and American adaptations. It is, more and more, a melding of two cultures.

Distortions persist because distinct types of behavior are not recognized by outsiders. Just as the Spanish language contains a formal and a familiar manner of speaking, so does the Chicano culture prescribe formal and informal behavior. Speaking to people in formal situations, such as work, church, school, or business, requires the use of "usted" (you). The familiar pronoun "tu" (you) is used with family and friends sharing the same social status. Formal behavior for formal occasions is prescriptive public behavior. Informal behavior is actual daily behavior. Cultural norms reinforce formal behavior, how group members ought to behave. Chicanas may be vocal and assertive with their husbands at home, but in public they behave as they should.

Contrast the public behavior of the Chicana and the Anglo woman. It is not uncommon to hear an Anglo woman tell her husband to "shut up" in public. Chicanas wait for a private moment to do so, and undoubtedly choose other words. Anglos interpret this type of response as submissive; Chicanas see it as proper formal behavior in a public situation. Actual daily behavior, on the other hand, is shaped by the needs of the family. "La familia" is the most important institution. The woman is the heart of the family. Familial responsibilities accelerate the Chicana's departure from passive-submissive behavior.

A SELF VIEW

The evolution of Chicana characteristics can be divided into three stages: the Passive-Submissive, the Becoming Independent, and the Independent.

As daughter, and later as young wife, the Chicana does pass through a passive-submissive stage. From childhood the female child is taught to be obedient, respectful, industrious, virtuous, and religious. The expectation is that she will integrate these values and adhere to them throughout life. The very same values, except for virtue, are taught to the Chicano son. In adolescence, the daughter is protected, sheltered, and confined. Unlike the Anglo family, the Chicano family does not equalize social privileges as the son and daughter grow older. Marriage promises more of the same; restrictive authority is transferred from the parents to the husband.

Major responsibilities related to managing the home and educating the children are assumed in the second stage. The Chicana must break out of the passive-submissive mold. Rural residence affords few opportunities to do so, but in the city each outing exposes her to the outside world. Each experience provides contact with other people and other women, each is a learning situation. These familial responsibilities transform the Chicana into a very strong woman. Passivity becomes activity. Moreover, each achievement increases her self-confidence and intensifies her quest for independence. Outwardly, the Chicano husband remains the dominant figure; privately, he is surrendering familial authority to his wife. Contrary to popular belief, most Chicanas do not settle into a life of continued male domination. A great amount of independence is needed and gained by the second stage. And male domination is being challenged further by the growing number of Chicanas entering the job market.

By stage three, Chicanas are the recipients of special treatment from both male and female members of their families and their group. The grandmother's wisdom is sought and respected. She is revered and loved for her performance as nurturing mother and enduring, loyal wife. And she may be as independent as she wishes to be.

If Chicanas are all seen as passive and submissive it is because, regardless of their age or status, they continue to behave publicly according to the norms of their culture.

THE WOMEN'S MOVEMENT

The basic conflict between Chicanas and the women's liberation movement lies in attitudinal differences toward
sexism. The women's movement insists that women, regardless of cultural affiliations, have the same problems and will respond in the same manner.\textsuperscript{10} Sexism is the major concern of the women's movement. It is of great concern to minority women as well, but their responses differ.

Chicanas make distinctions between the sexism of the dominant culture and the sexism of the subculture. Anglo women are hostile toward men. Chicanas are hostile toward Anglo men (and women), but not toward their own men. The Chicano male is a partner in the struggle for racial equality; one does not turn against a comrade. The Chicana recognizes and is attempting to change the sexist attitudes, beliefs, customs, and roles in her subculture, but her tactics and strategies will differ from those employed in dealing with the sexism and racism encountered in the Anglo world.

A collective approach to women's liberation is preferred by Chicanas when they deal with their own men. Great care is taken not to destroy the spirit of collectivism, cooperation, and mutual dependence which is ingrained through cultural socialization. The women's movement has an individualistic approach: liberation for the self regardless of the disruptions of the marital relationship or the family. This stance is consistent with the Anglo value system, but to expect all women to take the same stance has been the greatest misjudgment of the women's movement. We are all women. Women may all have the same problems, but each group of women responds to these problems according to the value systems, collective and individual, of its constituent women.

MULTICULTURAL TEACHER EDUCATION

Knowing and understanding the cultural values to which Chicanas adhere is an essential ingredient for multicultural teacher education. Learning about their culture not only is important for those who are planning to work with Chicanas, but is perhaps even more crucial for those teachers who will

be teaching about them. Once basic information is grasped, then and only then is it possible for teachers to plan curricular content that is appropriate for students. Equally important is the necessity to help prospective teachers develop appropriate and relevant instructional techniques and strategies. One technique which is popular is the cross-cultural approach which compares and contrasts the cultural characteristics of different groups of minority women. The teacher's role is to create an accepting and understanding atmosphere as students examine what socialization and behavioral patterns Chicana, Puerto Rican, Asian, Native American, Black, and Anglo women have in common. Where do basic differences occur? What are the behavioral implications of these differences? No group is omitted. Each member of a minority or ethnic group is invited to participate.

Multicultural education requires commitment on the part of all educators. Commitment to equality and the recognition of cultural diversity should be evident in staffing patterns, in counseling procedures, and in all other aspects of the educational program. An educational program that reflects cultural diversity at all levels and in a total way is one that can best provide multicultural education.
To know black women
GWENDOLYN C. BAKER

To learn about and to teach about black women is to put aside previous stereotypes and to see us as we truly are. Robert Hill, in *Strengths of Black Families*, discusses five strengths: strong kinship bonds, strong work orientation, adaptability of family roles, high achievement orientation, and religious orientation. These strengths cannot be adequately considered without some investigation of the role of the black woman in their development. Contrary to many perceptions of the black woman in relation to the black family, the pattern of family life developed not because the role of the black woman was that of a matriarch, but because of the unique roles that both black men and women had to assume. As Hollie I. West stated in the *Washington Post* review of Herbert G. Gutman's latest book, *The Black Family in Slavery and Freedom, 1750-1925*, "Despite family breakup and separation, family structure grew and stayed alive and cultural patterns formed."

Black women, partly through adjustment and adaptation to an unjust system, developed the ability and compassion for caring for young children and the elderly by absorbing them into their households at whatever the physical or economic costs. Hence we find the development and perpetuation of an extended family relationship. In the absence of formal adoption agencies, an informal adoption network functioned to tighten kinship bonds. The black woman provided a strong link in the development of this strength.

In most black families, women and men work together and place a strong emphasis upon work and ambition. Historically, black women have not been chained to their own kitchens, but rather through necessity have worked outside the home. The development of the black middle class gave rise to


13 Hill, p. 9.
an expanded partnership between the black female and the black male—the privilege to pursue a career was hers.

There is a high degree of equality in the black family. Family patterns appear to be egalitarian, with little attention to specific role definition. Men and women assume each other's roles as needed. Therefore, role diversity is not a need of black families.

Black women value achievement and can be considered not only as achievers but also as those who have encouraged the notion of "education as the hope for the future of Blacks." Unfortunately, society has not supported this strength, and there has been little upward gain on the economic ladder for black women.

Firm religious convictions have supplied hope to black families. Black women, as active participants in church related activities, have long been involved and are highly respected.

To know black women is to recognize and acknowledge their strengths:

To illustrate, women or the feminist movement may be explored, but the full impact of this movement will be ignored completely unless we consider the interest, concerns, and responses to the issues involved by women of various ethnic groups. The values and interests a Black, Native American, or Chicano woman places on the feminist movement are quite different from those of a white middle-class woman. The differences in perspectives and/or responses are primarily due to the ethnic experiences each has had in this country.14

A UNIFIED MOVEMENT

Perhaps the most essential instrument for combating the divisive effects of a black-only or feminist-on' movement is the voices of black women insisting on the unity of civil rights for minorities and women. Only a broad movement for human rights, via multicultural education in the schools, can

prevent black revolution from becoming isolated and can ensure its success as well as success in eliminating sexism. 15

Black women differ; there is no monolithic concept of the black woman, but there are many models. However, there is a common denominator, a common strand of history that characterizes all black women: oppression. 16

No matter how much we celebrate our culture and its heroes, we must still do the necessary activist work to eliminate oppression. Cultural nationalism can never be a total substitute for direct political involvement. 17

Therefore, as Pauli Murray discusses in "The Liberation of Black Women," involvement in the struggle against racism and sexism necessitates a dual approach:

Traditionally, racism and sexism in the U.S. have shared some common origins, displayed similar manifestations, reinforced one another, and are so deeply intertwined in the country's institutions that the successful outcome of the struggle against racism will depend in large part upon the simultaneous elimination of all discrimination based upon sex. 18

One approach that appears to be an appropriate attempt to combat the forces of racism and sexism may be found in the concept of multicultural education. A multicultural curriculum acknowledges the differences that exist between and within ethnic groups and includes these differences in the exploration of larger groups, cultures, and issues.

Responsibility for helping to eliminate racial misunderstandings and for creating an environment of equality has been


17 Ladner, p. 273.

18 Murray, p. 351.
placed on the education system. The 1954 decision in the case of Brown vs. Board of Education of Topeka was a beginning toward the desegregation of schools. Incorporating ethnic studies into the curriculum is a more recent attempt toward integration of instructional content. Then the need for eliminating existing racist and sexist behavior in our schools became a priority; in this regard, Title IX has become the password of the day.

Unfortunately, efforts to eradicate racism and sexism have, up to now, remained fairly separate movements; little has been done to develop an approach that will do both. As a result, endeavors formerly aimed at the elimination of racism have been curtailed, if not abandoned, in most schools, and the efforts toward elimination of sexist behavior are increasing. As one movement appears to be on the decline and the other on the upsurge, minorities—especially minority females—have been lost in the shuffle. The battle to eliminate sexism has been based on the assumptions that all women are the same and that all want the same changes. How inaccurate these assumptions are; to consider the plight of black women and other minority women the same as that of all other women is to assume in error.

The Black woman suffers from the twin burden of being Black and female. Her life is shaped by the subjugated statuses which are assigned to being a woman and being Black, both of which carry with them a double jeopardy.19

Black females are different because historically their involvement in the development of this country has been different; they are treated differently and they feel different. Other minority women have experienced similar treatment and feel much the same way as black women do.

EDUCATION FOR DIVERSITY

Because racism and sexism have parallel concerns and origins, it is mandatory that efforts to eliminate such behavior and attitudes in schools take a combined approach to the problem.

19 Ladner, p. 277.
Multicultural education—particularly as it relates to teaching about minority women, and specifically about black women—can be effective only if educators recognize that:

1. Teacher education programs must provide students an opportunity to learn about the involvement of the black American in the United States. Providing this kind of objective content will help establish a knowledge base that is essential to teachers who will be teaching Blacks and/or about Blacks.

2. An examination and analysis of the various myths and stereotypes about Blacks should be executed in view of historical relevancy—for example, the matriarchal role of the black woman.

3. It is crucial to be aware of those elements of the culture of Blacks that are held in common and those that may differ. This awareness is essential for helping to develop the sensitivity needed to respond to the educational needs of Blacks and, specifically, black females.
JAPANESE-AMERICAN WOMEN:
A PERSPECTIVE ON LIBERATION

LINDA J. MURAKISHI

I see women's liberation as meaning advocacy for the advancement of women, both personally and professionally. As such, women's liberation implies that women of all races join on common ground against a shared form of discrimination. For instance, we feel the impact of sexism, as other generations of Japanese-American women felt the sexism of patriarchal Japanese men, described in Emma Gee's historical essay, "Issei: The First Women."20 Gee relates how many Japanese immigrant women were burdened with the double task of working beside their husbands in the family enterprise while raising a family and keeping house. This experience is also common in the male-dominated culture. A patriarchal cultural structure is not the sole property of the Japanese-American immigrants.

A collection of essays, poems, and historical viewpoints entitled Asian Woman takes the modern stance that sexists among Asian-American males in the Asian-American "movement" need to be enlightened concerning their dominance of many activities.21 But nowhere in that collection of writings is it stated that men are a monolithic group. Asian-American men share with Asian-American women a history that has bound them together under racism. The women's liberation movement is based on the perception of men as a monolithic group, but the experience of Asian-American women has unified them with Asian-American men. And as I cannot ignore this bond, I cannot ignore the strength of shared identity and unity which comes with it. In Third World Women, a collection of articles by minority women, it is evident that out of a common identity that celebrates the unity of Third World men and women comes a self-acceptance which is positive and rewarding.22


WOMEN AND MEN TOGETHER

In light of my perception of the unity between Asian-Americans, it is not a contradiction to state that I am alienated from the women's liberation concept while acknowledging that sexism exists within and outside my Japanese-American subculture. I am alienated from a women's liberation concept that advocates for women alone while ignoring the needs of minority men, whose needs for advocacy are as great as those of women. Because I share a strong identity with other Asian-American people, I cannot ignore the racism faced as people of color, both male and female. Liberation from sexism is only part of the liberation needed by all minority people. There is a need for freedom from artificial limits determined by a person's obvious physical and sexual characteristics. My identity with Asian-Americans and other Third World people expands my concept of liberation past the liberation of women alone.

Socialization as a Japanese-American submerged in a larger culture has strengthened my identity with other Asian-Americans. When the first Asian woman set foot in America, she found a culture that glorified women with "white characteristics." "Asian Images--A Message to the Media" describes the socialization of Asians as negative to a large extent.

Governmental and educational institutions, advertising and public relations agencies, newspapers, and other public informational organizations (have) often developed and reinforced stereotyped images that perpetuate prejudice and hate toward Asians. . . . For whatever reasons--political, economic, social, comical--these distortions have done much to damage the image of Asian-Americans.23

This experience is not limited to women; Asian men are also victims of negative racial stereotypes. The perceptions of the majority culture can be very destructive to the individual and the group when accepted without critical analysis.

Angry that negative stereotypes are often accepted by minority people, one Asian-American woman writes critically of an "Asian-American magazine" containing advice for disguising Oriental eyes so that they seem larger. This is an example of how it is possible to lose perspective on our Asian/non-majority characteristics and deny qualities so inherently Asian as our physical appearance. Like other minorities, Asian-Americans fight against such illogical and demeaning perceptions of themselves. Our human need to perceive ourselves as worthwhile makes Asian-American men and women accepting and supportive of each other. As a subculture we have values which differ from the larger American culture. Our subcultural values do not contain the negative evaluations of the outsider looking in.

Historical experience with racism has served as another unifying force between Asian-American men and women. An example of the racism which Asian-Americans have experienced is the incarceration of Japanese-Americans during World War II. These desert camps were ostensibly designed to prevent harm from coming to Japanese-Americans through Yellow Peril hysteria, and to contain the fifth column acts of sabotage which disloyal internees were presumed capable of committing. Michi Weglyn, in Years of Infamy, documents recent evidence that shows the evacuees were in actuality considered innocent of such activities by government investigators. She writes,

One of the gross absurdities of the evacuation was that the preponderance of those herded into wartime exile represented babes-in-arms, school-age children, youths not yet of voting age, and an exhausted army of elderly men and women hardly capable of running out and carrying on subversion.25


But if the camps did not serve the purpose of protecting Americans and democracy, they did accomplish one task very well: the camps taught Japanese-Americans that they were powerless to stop racism from directly affecting their lives. 26 This powerlessness unified the Japanese-Americans in the sense that their efforts for liberation were focused outside their racial group. They saw that equality was denied them because of their race, and this made every Japanese-American keenly aware of the common burden both men and women carried. Fighting racism as an individual is pointless because racism blankets an entire group of people, not one person alone. In the same way, exploring sexism as a woman's struggle misses the scope of the oppression; sexism affects all people in its denial of rights for a few. Sexism, when seen in the context of a history of discrimination, is just one more form of discrimination faced by Japanese-Americans.

In essence, all women may share familiarity with sexism, and on that broad commonality build a feeling of solidarity against it. But beyond that broad meeting ground are the differences in attitude which separate many minority women from many women of the majority culture. These differences come from the experiences of history and socialization of different groups. Because racism is faced by all Japanese-Americans without distinctions of male and female, unity and group identity are recognized as tools to combat it. To put aside the effects of racism, Japanese-Americans use this unity and group identity to examine the sources of racism critically and to reject stereotypes destructive to their potential for advancement. With the problem of sexism, the same formula is also applied. Sexism, because it is only one more form of discrimination, can be fought as Japanese-Americans have fought other forms of inequality: by a powerful union of men and women. Asian-American men and women both have traditionally drawn upon each other as sources of positive identity and pride. There is no logic in fighting the men with whom we have stood firm against other forms of oppression.

Asian-American and Third World liberation means to me that my daughters will be as free as my sons to express their abilities. I cannot make the choice to advocate the rights of one child over the rights of the other. Many Americans realize that "women are half of the working force in the movement against oppression, exploitation, and imperialism. . . . They must develop as human beings, not subject to categorizations and stereotypes. The struggle is not men against women, nor women against men, but it is a united front striving for a new society, a new way of life."27

TEACHER EDUCATION IMPLICATIONS

Japanese-American history is noteworthy in that it is a history strikingly/mundanely like the histories of other immigrant groups. The Americanization of and discrimination against migrants make a deep mark on their psychology; old country values lose their meaning as they alter and blend into new values. This socialization of immigrants is an American theme which ties together the histories of all groups. It ties each student in the class to the past and to the future, because it is an ongoing theme yet to be resolved. Many Japanese-Americans are today very aware of the implications of immigrant status as manifested in discrimination against race, language, and culture. It is necessary to assess those differences in terms of societal acceptance and professional expectations, past and present. Japanese-American history is continuing, and is still influenced by those immigrant differences which have set apart so many other groups.

Japanese-American women must be seen in this greater context of immigrant socialization. They share the racism of their history with Japanese-American men, and both continue to face racism as visible minorities. Majority culture, minority culture— the conflict has produced a crucible in which Japanese-American identity has formed to the exclusion of separate male and female priorities. Freedom from discrimination means that sexism and racism are perceived as

common adversaries. Wanting acceptance by the majority cul-
ture and yet wanting to celebrate their Japanese-American
strengths, Japanese-American women often find themselves
with priorities and concerns which are different from those
of non-minority women. The goals of teacher educators
should be to show how these desires for self-acceptance
and majority acceptance are often contradictory desires
for the Japanese-American woman, and how the fears and
lessons of racial discrimination lead her to value unity
with Japanese-American men.
NEW DIRECTIONS FOR ENSURING EQUALITY

GWENDOLYN C. BAKER

Each of the foregoing articles gives consideration to the involvement of minority women in the women's movement. The individual authors speak to the unique relationship that exists between their respective ethnic/cultural groups and the focus of the current struggle against sexism. In "Minority Women and the Women's Movement," Ann Schlitt states, "There is as much diversity within an ethnic group as there is between groups"; this idea is further explored by Kathleen Hunter as she points out the tribal and regional differences among American Indian women. In "Understanding the Chicana," Isabel Salas suggests a slightly more uniform approach; but the stages of development discussed indicate that there is also great variety in the thinking and behavior of Chicanas. Linda Murakishi makes the point that the history and socialization of minority women contributes to these differences within groups, and I have emphasized that there is no monolithic concept of the black woman.

In essence, each message reiterates that there is no one model woman, just as there is "No One Model American." That concept, which the American Association of Colleges for Teacher Education (AACTE) has advocated for several years, is the idea on which its Multicultural Commission bases all its activity.28

All of the authors seem to agree that the differences which do exist among women are largely cultural in nature, and have been influenced by each group's experiences in this country. These different cultural traits, behaviors, and strengths must be considered and acknowledged not only in the women's movement, but in any activity that concerns all people. Therefore, it is appropriate to think about the preparation of teachers to foster sensitivity to these differences.

Multicultural education is one approach that can be used to acknowledge the differences which exist between and within ethnic/cultural groups. It is a method that recognizes cultural diversity in the exploration of larger issues. This

does not mean that commonalities of groups should or can be ignored.

Multicultural education provides for the identification of those behaviors, beliefs, and attitudes that are common among and between groups, but at the same time acknowledges the differences that exist. For example, while there are groups of women who seek the freedom to pursue a career, there are also women for whom this is not a need. On the other hand, "equal pay for equal work" will hardly be shunned by any group of women, regardless of their minority affiliation. Economic oppression has been felt by all women and can be thought of as a unifying force in the women's movement.

Multicultural education demands that attention be given to the diversity of individuals and groups. Educators and students alike must be sensitive to the needs of a multicultural population in all attempts to free our schools from sexism.

The recognition of cultural diversity through teacher education, preservice and inservice, could have a substantial impact on schools. The following guidelines are multicultural characteristics suggested for teacher education programs:

1. All aspects of teacher education should incorporate acknowledgment of, recognition of, and exposure to ethnic and cultural diversity.

2. Teacher education should provide training that will help the preservice student and the inservice teacher perceive differences as positive cultural variants.

3. The main focus of multicultural teacher education should be on the ethnic/cultural groups within the United States, and should include the international perspective only when it can be significantly related.

4. Training should be provided to prepare educators who will be able to develop instructional techniques, strategies, and materials that will support multicultural concepts.

As affirmed in the AACTE Multicultural Commission statement, "No One Model American".
Colleges and universities engaged in the preparation of teachers have a central role in the positive development of our culturally pluralistic society. If cultural pluralism is to become an integral part of the educational process, teachers and personnel must be prepared in an environment where the commitment to multicultural education is evident. Evidence of this commitment includes such factors as a faculty and staff of multi-ethnic and multiracial character, a student body that is representative of the culturally diverse nature of the community being served, and a culturally pluralistic curriculum that accurately represents the diverse multicultural nature of American society.29

Multicultural education can pave the way for ensuring the involvement of minority women in the elimination of sexism. It is also a means by which we can ensure truly effective educational programs. Teacher education has a responsibility it cannot afford to ignore.

29 Ibid.
1. Characteristics of the document type

Research reports usually set forth a problem for which a solution or further explication is sought. Normally the problem will be stated, an hypothesis formulated, a research design established for a target population, findings presented, and conclusions/recommendations set forth. The better the document, the greater the likelihood that all of these will be present; there will be exceptions, however.

Author abstracts are usually found at the front or at the end of a document. Author abstracts vary from a few sentences to a virtual rewrite of the document. There are few guidelines extant for writing author abstracts; authors sometimes even dash off an abstract at some time before or after the document proper is written without consulting the finished document.

You should also recognize that sections called "Conclusions" or "Summary" or some other synthesizing section may well be the equivalent of an author abstract. Be prepared to accept any help that comes your way.
2. **What a practiced eye will look for in this type of document**

A well-written research report will have the kind of progression indicated above, with headings and subheadings for the various sections. A lightning look at the first few sentences under each section should give a feel for the internal integrity of the document (not all documents are what they seem or should be!). Further, such a "flip-through" will give a feel for the author's weighting of the conceptual components of the paper.

A well-written author abstract will be a condensed version of the report, weighting and all. After skimming through the report, the practiced eye can evaluate the author abstract for faithfulness to the report and appropriateness for ERIC purposes. It is well to remember that the use of a good author abstract provides an inexpensive abstract—a thing highly prized in the unit cost battle. You should not be so enamored of your own creativity that you are unwilling to accept a little help from others.

3. **Decision: Indicative or informative**

Section 6 of the **ERIC Processing Manual** indicates that research reports usually require informative abstracts; probably no other kind of document (except possibly position papers) more fully represents an author's personal statement. Perhaps the only research report situation in which an indicative abstract might be used would be in the case of a very large study of such diverse elements as to defy anything except a description. Such is not the case here, so an informative abstract will be used.
4. Parts of the document on which the abstract should be based

You should now read Document No. 6. Since one of the aims of this exercise is to assist you in critically assessing author abstracts, it is suggested that you read the document before reading the author abstract.

When you are truly experienced, it might not be necessary for you to read the entire document. What we want you to develop is an insightful eye that will permit you to scan and pick and choose. For example, the majority of the experienced abstractors who helped write this Workbook for you said they looked at (and the order varied with the abstractor):

- Introductory Remarks
- Conclusion
- Population group information
- Methodology
- Author Abstract
- Results

It would also be a good idea for you to review the rules for specific kinds of documents (in this case "Reports-Research and Technical") in Section 6 of the ERIC Processing Manual in order to begin fixing in your mind the kinds of things you must be alert for as you now read (and later scan as you become more proficient). You might find it useful to write out the required components (including the subsections of methodology) and tick them off as they arise (or do not)
in the paper. All right, now review Section 6 of the Processing Manual, read the document, and then read the author abstract.

5. Essential features of the content of the abstract

You have just reviewed the required features of a research report informative abstract. Hopefully you made the listing and ticked off the elements as you found them in the paper. Let us now review the author abstract in view of the requirements:

Author Abstract

In foreign language education there is a great need for empirical research to examine the communicative effect of errors made by second language learners. There is also a need to determine experimentally how different error correction strategies affect different students' developing proficiencies in the foreign language. Consequently, a number of different student types were subjected to two areas of error analysis that directly relate to compositions written by learners of English as a second language. The errors were classified as global or local and were further identified as lexical, morphological, syntactic, and orthographic. Two pretests were administered to the subjects to determine proficiency in English grammar, vocabulary, and reading comprehension and to assess communicative and linguistic proficiency in written English. Students were randomly assigned to one of two treatments: correction of written global errors only or correction of written global and local errors. Results indicated: some evidence that the communicative proficiency in the written work of intermediate students of ESL depends rather heavily on an adequate knowledge of vocabulary and on the proper use of prepositions and pronouns; that linguistic proficiency depends on knowledge of the subtle connotations of English
lexicon, on skill in using prepositions precisely, on making subjects and verbs agree, on using the simple past and past perfect tenses correctly, and on writing sentences that conform to the demands of English word order; that the selective approach to error correction did not improve the students' communicative and/or linguistic proficiency. For the present, it looks as if the development of instructional techniques and materials for facilitating communicative and linguistic proficiency in the ESL classroom largely depends upon the professional responsibility and personal integrity of the teacher.

There are now some questions to ask yourself about the author abstract:

a. Are the objectives adequately set forth?
   Probably not. The ERIC user would appreciate some definitional cue as to how the author uses "global" and "local."

b. Is the population group adequately mentioned?
   Probably not. The user would find it helpful to know the number of subjects and that they were adult, foreign-born.

c. Is the methodology adequately described?
   Probably not. There is no mention of the duration of the study, the use of pictures to elicit composition, or the use of posttests.

d. Is there material in the author abstract which does not reflect the true "weight" of the document?
   Yes, the last sentence (which is kind of an insightful
observation by the author) is not really representative of the thrust of the study. So, you must now make a decision:

Is the author abstract adequate? No.
Do you want to tinker with it? Depends on you.
Do you want to start from scratch? Depends on you.

The majority of our experienced abstractors who worked on this document found it easier and more time-saving to simply start afresh after seeing the inadequacies of the author abstract. This is not to imply that a weak author abstract can never be supplemented and used. Rather, it does imply that the working styles of those abstractors made it easier for them to start over for this particular author abstract. Their discipline was already set, and putting the required material in initial sequence was easier than to try to shift existing sentences that were not wholly responsive to the requirements.

Perhaps you would now like to try your hand at the abstract for this document. Remember all the things you have learned about voice, tense, etc., plus the requirements for this kind of abstract.

6. Presentation of a sample abstract

Finished? Have you included all the requirements? Does your topic sentence zing?

The sample abstract given below is packed with high-density information. Notice that the objectives are stated, basic information on the
subjects and methodology is given, and the results are set forth. What kinds of things had to be sacrificed in the interests of weighting and space? If you worked in lexical, morphological, syntactic, and orthographic, what did you have to leave out? On the basis of weighting, how would you defend that decision?

Twenty-four foreign-born adults enrolled in an English as a second language (ESL) course participated in a six-week experiment to determine the most frequent communicative and linguistic errors in student compositions, and to examine the effect of two types of direct teacher correction on student writing proficiency. One pretest assessed proficiency in English grammar, vocabulary, and reading comprehension; a second pretest assessed global (communicative) and local (linguistic) errors in written English. After being placed in a high or low communicative proficiency group, students were randomly assigned to two treatment groups: correction of written global errors only or correction of both global and local errors. Picture stories were used to elicit compositions for evaluation. Posttesting indicated written communicative proficiency depended upon an adequate knowledge of vocabulary and the proper use of prepositions and pronouns; linguistic proficiency depended upon knowledge of subtle connotations of English lexicon and various grammatical skills. Neither error correction treatment made any statistically significant difference in students' written proficiency.

7. Indexable Concepts

Well, what concepts are we talking about? We are:

a. involved in a search for an effective error analysis strategy for second language learning;

b. interested in enhancing composition skills and language mastery; and
c. concern with adults in an English as a second language situation.

Let's further refine that into some specific areas and look at available terms from the Thesaurus:

d. Objectives

*ERROR ANALYSIS (LANGUAGE)--Right on target.

*WRITING SKILLS--The scope note for WRITING SKILLS reads "Skills that enable an individual to write lucidly, coherently, and grammatically." (The UF term is COMPOSITION SKILLS (LITERARY).) Right on target.

*LANGUAGE PROFICIENCY--The document is concerned with "student writing proficiency." LANGUAGE SKILLS is rejected as being too broad for the conceptual level of the document.

Appropriate minor descriptors would be COMMUNICATIVE COMPETENCE (LANGUAGES), GRAMMAR, and VOCABULARY.

e. Curriculum Concepts

*ENGLISH (SECOND LANGUAGE)--Right on target.

*SECOND LANGUAGE INSTRUCTION--Most basic concept of the entire document. A parallel term SECOND LANGUAGE LEARNING is less on target and should be discarded. Indexers should always try to choose among terms with similar constructions and subtle distinctions in meaning.

f. Population Concept

ADULT STUDENTS--We know little about these students except that they were adults, foreign-born, and of widely varying educational background. The most specific descriptor is ADULT STUDENTS. It should probably be a minor term since the fact that the students were adults is of minor significance in this study.

g. Instructional Strategy

TEACHING METHODS--Because we have such specific terms available as ERROR ANALYSIS (LANGUAGE) and SECOND LANGUAGE INSTRUCTION, they become the major concepts and TEACHING METHODS in an enriching term. TEACHING METHODS serves this function for many documents.

PICTORIAL STIMULI--Unique, minor element of the document.

h. Document Type

LANGUAGE RESEARCH--Broad overreaching term.
Pub Type code is 143--Research Reports.

i. Mandatory Educational Level

None of the mandatory leveling descriptors appears appropriate to this document.

There is one other concept that is neither major nor available in the Thesaurus, but does supplement the other terms. We need to get at the concept of foreign-born. Checking the available Thesaurus terms, we find we do not have enough information to determine that these students were FOREIGN NATIONALS, FOREIGN STUDENTS, or FOREIGN WORKERS. Their one unifying foreign trait was that they were "Foreign Born." We might, therefore, want to make that a minor identifier.

Although ERIC's aim is for consistency, it is recognized that clearing-houses have references for term assignment in their scope areas. What we have tried to do here is present some basic terms as selected by our experienced indexers. The numeric range of possibilities should not frighten you. The main thing is to be able to adequately retrieve the document with the best terms available. You might be interested in the range for this document:

<table>
<thead>
<tr>
<th># of indexers</th>
<th># of terms used</th>
</tr>
</thead>
<tbody>
<tr>
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<td>1</td>
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<td>16</td>
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<td>19</td>
</tr>
</tbody>
</table>
There are some tests you can apply to your indexing:

Can you sort of remake the abstract from the terms?

Have you used precoordinated descriptors wherever possible?

Could you find the document in a hand search?

Is the indexing at the conceptual level of the document?

Are the index terms reflected in the abstract? This test is just for consistency; you index from the document and not from the abstract.
<table>
<thead>
<tr>
<th>CONCEPTS</th>
<th>MAJOR</th>
<th>MINOR</th>
<th>JUSTIFICATION</th>
<th>TOO BROAD/OFF-TARGET</th>
</tr>
</thead>
<tbody>
<tr>
<td>OBJECTIVES</td>
<td>*ERROR ANALYSIS (LANGUAGE)</td>
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<td></td>
<td>*WRITING SKILLS</td>
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<td>*LANGUAGE PROFICIENCY</td>
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<td>COMMUNICATIVE COMPETENCE (LANGUAGES)</td>
<td>LANGUAGE SKILLS</td>
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<td>VOCABULARY</td>
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<td>GRAMMAR</td>
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<td>CURRICULUM</td>
<td>*ENGLISH (SECOND LANGUAGE)</td>
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<td>SECOND LANGUAGE LEARNING</td>
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<td></td>
<td>*SECOND LANGUAGE INSTRUCTION</td>
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<tr>
<td>LEVEL/POPULATION</td>
<td></td>
<td>ADULT STUDENTS</td>
<td>MANDATORY LEVELERS INAPPROPRIATE</td>
<td>FOREIGN NATIONALS</td>
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<td>FOREIGN STUDENTS</td>
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<td>FOREIGN WORKERS</td>
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<tr>
<td>ACTION</td>
<td></td>
<td>PICTORIAL STIMULI</td>
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<td></td>
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<td>TEACHING METHODS</td>
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<td>DOCUMENT TYPE</td>
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<td>LANGUAGE RESEARCH</td>
<td></td>
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<tr>
<td>IDENTIFIER</td>
<td></td>
<td>FOREIGN BORN</td>
<td>TO DIFFERENTIATE BETWEEN ESL PROGRAMS FOR NATIVE AND FOREIGN-BORN STUDENTS</td>
<td></td>
</tr>
</tbody>
</table>

*ERROR ANALYSIS (LANGUAGE) reflects the interest between "GLOBAL" and "LOCAL" errors of this study.

*WRITING SKILLS: The other half of "WRITING PROFICIENCY" concept.

*LANGUAGE PROFICIENCY: One-half of "WRITING PROFICIENCY" concept.

SYNTAX \{ TOO SPECIFIC \}

MORPHOLOGY (LANGUAGES)

TOO BROAD/OFF-TARGET
Error Analysis and Selective Correction in the Adult ESL Classroom: An Experiment

James M. Hendrickson
The Ohio State University

ABSTRACT

In foreign language education there is a great need for empirical research to examine the communicative effect of errors made by second language learners. There is also a need to determine experimentally how different error correction strategies affect different students' developing proficiencies in the foreign language. Consequently, a number of different student types were subjected to two areas of error analysis that directly relate to compositions written by learners of English as a second language. The errors were classified as global or local and were further identified as lexical, morphological, syntactic, and orthographic. Two pretests were administered to the subjects to determine proficiency in English grammar, vocabulary, and reading comprehension and to assess communicative and linguistic proficiency in written English. Students were randomly assigned to one of two treatments: correction of written global errors only or correction of written global and local errors. Results indicated: some evidence that the communicative proficiency in the written work of intermediate students of ESL depends rather heavily on an adequate knowledge of vocabulary and on the proper use of prepositions and pronouns; that linguistic proficiency depends on knowledge of the subtle connotations of English lexicon, on skill in using prepositions precisely, on making subjects and verbs agree, on using the simple past and past perfect tenses correctly, and on writing sentences that conform to the demands of English word order; that the selective approach to error correction did not improve the students' communicative and/or linguistic proficiency. For the present, it looks as if the development of instructional techniques and materials for facilitating communicative and linguistic proficiency in the ESL classroom largely depends upon the professional responsibility and personal integrity of the teacher.

1 The Author wishes to thank Gerard L. Ervin and Major Brent M. Strong for their helpful comments in the preparation of this paper.
In foreign language education there is a great need for empirical research to examine the communicative effect of errors made by second language learners. There is also a need to determine experimentally how different error correction strategies affect students' developing proficiency in the foreign language. The findings of such empirical research could provide language teachers with useful information for helping students to express their ideas and feelings with greater substance and accuracy.

Recently, Kellerman (1974) recognized that all second language errors should not be assigned an equal status within any given learner's grammar. This statement is especially true when considering which student errors to correct and how to correct them. Many foreign language educators agree that correcting errors that seriously impair the communication of a message should receive priority over those errors that cause a message to appear awkward, yet understandable (Robinson 1971, George 1972, Olsson 1972, Hanseli 1975, Johansson 1975, Powell 1975, and Valdman 1975). Moreover, Burt (1975) proposes that selective approaches to error correction may be cognitively and affectively more effective than an "all-out" correction method, especially if the communicative effect of errors forms the basis of selective correction.

Objectives

This study was conducted to examine two areas of error analysis that directly relate to compositions written by adult learners of English as a second language. Its goals were (1) to determine the most frequent communicative and linguistic errors in these students' compositions and
to examine how two types of direct teacher correction would affect the students' writing proficiency.

Classification of Written Errors

Burt and Kiparsky's (1972) global/local error distinction served as the theoretical base for developing a taxonomy of student written errors. In this investigation a global error is a communicative error that causes a native speaker of English either to misinterpret a written message or to consider the message incomprehensible within the total context of the error. A local error, on the other hand, is a linguistic error that makes a sentence appear ungrammatical or unidiomatic but, nevertheless, causes a native speaker of English little or no difficulty in understanding the intended meaning of a sentence, given its contextual framework. (Hendrickson)

Global and local errors were classified into four subcategories based on the misuse or omission of standard English lexicon, morphology, syntax, and orthography. The lexical subcategory included most misused or omitted nouns (including compound nouns), verbs, adjectives and adverbs. The morphological subcategory referred to the misuse or omission of any required bound morpheme (e.g., ed in played vs. play; un in uncommon vs. common). The syntactic subcategory comprised misused or omitted determiners, modals, qualifiers, prepositions, conjunctions, subordinators, sentence connectors, question words, and certain otherwise Uncategorized syntactic classes (e.g., there is, it is). The orthographic subcategory consisted of the addition, omission or rearrangement of one or more letters in any lexical, morphological or syntactic form or structure.

Thus, students' written errors were classified into eight general...
categories as shown in the following chart:

<table>
<thead>
<tr>
<th>Global</th>
<th>Local</th>
</tr>
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<tbody>
<tr>
<td>Lexical</td>
<td></td>
</tr>
<tr>
<td>Morphological</td>
<td></td>
</tr>
<tr>
<td>Syntactic</td>
<td></td>
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<tr>
<td>Orthographic</td>
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</tbody>
</table>

So that students' global and local errors could be converted into statistically manipulable data, a global and a local error ratio were calculated for each student. A global error ratio consisted of dividing the total number of global errors on a composition by the total number of words written. The global error ratio was taken to measure a student's communicative proficiency, i.e., as a student's global error ratio decreased, his communicative proficiency increased. Similarly, dividing the total number of local errors by the total number of words on a composition yielded a local error ratio. A student's linguistic proficiency was thus shown by his local error ratio, i.e., as his local error ratio decreased, his linguistic proficiency increased.

**Subjects**

Twenty-four foreign-born adults enrolled in two sections of a non-credit ESL course sponsored by the Division of Continuing Education of The Ohio State University. These students formed a very heterogeneous group in terms of age (18-45 years old), educational background (completion of middle school to postdoctoral studies), English proficiency (raw scores on Form A of the Michigan Test of English Language Proficiency ranged from 29 to 93, with an average of 46), and native language
At no time prior to or during the English course were students informed that an experiment was in progress.

**Procedure**

When class enrollment had reasonably stabilized by the second week of class, two pretests were administered. One test determined students' proficiency in English grammar, vocabulary, and reading comprehension as measured by the *Michigan Test*. A second test assessed communicative and linguistic proficiency in written English by determining students' global and local error ratios on compositions elicited by three picture stories adapted from the *Picture Composition Book* by Hill (1960). Students were not permitted to use dictionaries, grammar books or other such external aids, and they were not permitted to speak with one another while writing their compositions. On the basis of the latter test, students were identified as having high communicative proficiency (i.e., low global error ratio) or low communicative proficiency (i.e., high global error ratio). The median global error ratio determined the cut-off point between high and low communicative groupings. Students from both groups were then randomly assigned to one of two treatments: correction of written global errors only ($A_1$) or correction of written global and local errors ($A_2$).

To illustrate how each of these two correction methods was undertaken, two facsimiles of an actual student's composition are presented below. In the first facsimile, the composition has been corrected using Treatment $A_1$, while in the second, Treatment $A_2$ has been used.
Illustration of Treatment A₁: Correction of Global Errors Only

In the summer Mr. Smith and his wife leave the camping. They are fishing in the lake. She lost her watch in the lake. She is sick. Mr. Smith fishing one big fish. They walking at home. She crying. He said No problem. I buy new watch.

In the home she cooking the big fish. She cutting the fish. In the fish is her watch. Mr. Smith and her wife are happy because she has her watch and he not buy new watch.

Illustration of Treatment A₂: Correction of Global and Local Errors

In the summer Mr. Smith and his wife leave the camping. They are fishing in the lake. She lost her watch in the lake. She is sick. Mr. Smith, fishing one big fish. They, walking at home. She, crying. He said No problem. I buy new watch.

In the home she, cooking the big fish. She, cutting the fish. In the fish is her watch. Mr. Smith and her wife are happy because she has her watch and he not buy new watch.

Beginning in the third week of the course and extending over the following six consecutive weeks, all students were given the opportunity in class to describe 18 different picture stories adapted from the Hill book. At no time were students permitted to use any external aids while writing these compositions. This researcher corrected each of these picture story compositions according to the particular treatment (A₁ or A₂) to which individual students had been assigned. At the next class meeting each student studied his corrected composition and its corresponding picture sequence alone in separate learning carrels. As each
student completed this task, his corrected composition and picture sequence were collected and he was given another picture story to describe in written English.

In the ninth week of the course students were administered as a posttest the two measures that had been used for the pretests. The Michigan posttest was used to determine students' general progress in the English course over a six-week period. The composition posttest was used to investigate whether the error correction treatment had any statistically significant affect upon students' communicative and linguistic proficiency in written English during the same period.

A 2 X 2 factorial Treatment-by-Blocks design was used to test the main and interaction effects of two independent variables: assignment to Treatment $A_1$ or $A_2$ and grouping according to high or low communicative proficiency. The two dependent variables were global error ratio and local error ratio, as measured on the composition posttest. An analysis of variance was computed to test for differences of statistical significance at the .05 level.

**Results**

**Frequency of Communicative and Linguistic Errors**

Of the nearly 10,000 errors made by students on 552 compositions (including composition pre- and posttests and all in-class compositions), the most frequent are discussed below with respect to the eight error categories outlined above.

**Global lexical errors** resulted because students lacked sufficient knowledge of the nouns, verbs, adjectives, and adverbs they needed to
describe the picture stories adequately. Students often indicated their awareness of their lexical deficiencies by replacing the needed elements with a line, ellipsis, question mark or an empty space. Occasionally a student omitted a lexical item altogether, either accidentally or intentionally (e.g., "They think they have to [go] up to in there"). Varadi (1973) identifies this communication strategy as message abandonment. Other students risked making global lexical errors by substituting completely inappropriate words. For example, when faced with the necessity of conveying the meaning for the noun "fence," many students used one of three communication strategies: message adjustment in the form of generalizations (e.g., "leap," "door," "walk," "gate"); approximation (e.g., "wall," "hedge," "railing"); and word coinage (e.g., "penetrate"). (A Vietnamese student who had studied French made the word coinage error, which may have resulted from combining the notion of "getting into" a fenced yard with the French verb penetrer.) Sometimes students produced global lexical errors simply by using an item that, though semantically related to the needed word, changed a sentence's meaning altogether (e.g., "cattle" for "sheep") or made no sense at all in the particular context (e.g., "hours" for "wristwatch").

Global morphological errors accounted for the least number of global errors. They occurred most frequently when Verb + ing was substituted for Verb + ed (e.g., "The girl is surprising" instead of "The girl is surprised"). Occasionally when a picture story portrayed only one person or object, a student consistently referred to the plural form of

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2For several informative discussions on error avoidance see Kellerman (1974), Rojas (1971), and Schachter (1974).
the noun without indicating singularity in the context of the composition: "They go out and bring something to make the holes." (cf. "hole"). On several occasions this phenomenon was reversed: "The farmer took the animal to the barn." (cf. "animals").

Global syntactic errors occurred most frequently when prepositions and pronouns were misused or omitted. Misused prepositions often made meaning ambiguous: "They worked and at last they found their sheep without frozen" (cf. "were not"). Omitted preposition also confused meaning: "They are going a bridge" instead of "They are going on a bridge." The misuse of pronouns made several interpretations of meaning possible, especially when subject or possessive pronouns were used inappropriately: "When the woman watch this he is scare and cried" (cf. "she"); "The wife of the family man want some ornaments from his husband" (cf. "her"). Sometimes an omitted pronoun caused considerable ambiguity of a message: "Her husband followed her carring the fish which was hunting for their eating" instead of "Her husband followed her carring the fish which he was hunt for their eating."

Global orthographic errors most frequently occurred with lexical items as illustrated by the following sentence: "The wife coke the fish but in the fishes have the washes." What the student actually meant to write was: "The wife cut the fish but in the fishes have the watches." (A global morphological error was also tallied because the picture story clearly showed that the fish contained a single watch). It would appear that among the primary causes of seriously misspelled words were inadequate knowledge of correct sound-symbol correspondence in English and interference from native language phonology.

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Local lexical errors occurred in large numbers on all student's compositions. The following examples illustrate such faulty lexical choices:

"He finded one bird-home and her eggs." ("bird's nest")
"Two boys are sliccing tree know at night." ("sawing down")
"The small boat runs fast to the beach." ("moves")
"Before the sleep he turn-off the curtains on the window." ("close")

Local morphological errors appeared in the compositions of all students in varying frequencies. However, most of these error occurred in two specific areas:

(a) Lack of subject-verb agreement. This accounted for a very large portion of the local morphological errors. For example, "The little brother look at his sisters who play badminton" (cf. "looks").

(b) Errors resulting from inappropriate past tense forms. These pervaded the compositions of even the most advanced students in the class:

"They digged around the small tree." ("dug")
"Their mother didn't spanked them." ("spank")
"It's impossible it has grew very rapidly." ("grown")

Local syntactic errors accounted for perhaps one third of all global and local errors. The most frequent problems that students experienced with this error type are as follows:

(a) The misuse of prepositions caused a great deal of difficulty for all students, especially the inappropriate use of in/on and to/at. For example:

"They are enjoying each other at living room." ("in")

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6-10
"There are also a man who is saying good-bye with his wife." ("to")
"When he rides bicycle's, one car hits to him." ("hits him")

Students also omitted many prepositions in their sentences:
"He is listening the talk of the man." ("listening to")
"They are running at the river that is close the house." ("close to")
"It is second story of building." ("is on")

(b) Incorrect word order also caused many problems for students:
"They enjoy highly the cooking." ("highly enjoy")
"I did it well until now without it." ("Until now I...")
"Well, nothing is forever,' told them their mother." ("their mother told them")

Local orthographic errors accounted for many local errors, especially in the nouns, verbs, adjectives, and adverbs students used in their picture story narrations:
"The plaen went to sky." ("plane," "sky")
"The boy goes up the three and the girl helps him." ("tree," "helps")
"You must be careful, I'm not going to buy another watch for you." ("careful," "another," "watch")

Effect of Direct Teacher Correction

An examination of the tables below reveals that neither error correction treatment, regardless of level of communicative proficiency, made any statistically significant differences in students' written proficiency over the six-week treatment period.
TABLE 1
Means and Standard Deviations for the Posttest Global Error Ratio By Error Correction Treatment and Pretest Communicative Proficiency

<table>
<thead>
<tr>
<th>Error Correction Treatment</th>
<th>Pretest Communicative Proficiency</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td></td>
<td>n</td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>Global Errors Corrected</td>
<td>7</td>
<td>.022</td>
<td>.014</td>
</tr>
<tr>
<td>Global and Local Errors</td>
<td>7</td>
<td>.021</td>
<td>.014</td>
</tr>
<tr>
<td>Corrected</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>14</td>
<td>.022</td>
<td>.013</td>
</tr>
</tbody>
</table>

TABLE 2
Analysis of Variance of the Posttest Global Error Ratio By Error Correction Treatment and Pretest Communicative Proficiency

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
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<tr>
<td>Error Correction Treatment (A)</td>
<td>1</td>
<td>.000b</td>
<td>.000b</td>
<td>.005</td>
<td>.99</td>
</tr>
<tr>
<td>Pretest Communicative Proficiency (B)</td>
<td>1</td>
<td>.001</td>
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<td>.11</td>
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<tr>
<td>Interaction (A X B)</td>
<td>1</td>
<td>.000b</td>
<td>.000b</td>
<td>.057</td>
<td>.99</td>
</tr>
<tr>
<td>Residual</td>
<td>20</td>
<td>.001</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>23</td>
<td>.000b</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a Probability of rejecting a true null hypothesis
b Computer program rounded these values to only three digits
### TABLE 3

Means and Standard Deviations for the Posttest Local Error Ratio By Error Correction Treatment and Pretest Communicative Proficiency

<table>
<thead>
<tr>
<th>Error Correction Treatment</th>
<th>Pretest Communicative Proficiency</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td></td>
<td>n</td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>Global Errors Corrected</td>
<td>7</td>
<td>.113</td>
<td>.054</td>
</tr>
<tr>
<td>Global and Local Errors</td>
<td>7</td>
<td>.112</td>
<td>.055</td>
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<tr>
<td>Corrected</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Totals</td>
<td>14</td>
<td>.112</td>
<td>.052</td>
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</table>

### TABLE 4

Analysis of Variance of the Posttest Local Error Ratio By Error Correction Treatment and Pretest Communicative Proficiency

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<thead>
<tr>
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<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Error Correction Treatment (A)</td>
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<td>.005</td>
<td>1.700</td>
<td>.21</td>
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<tr>
<td>Pretest Communicative Proficiency (B)</td>
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<td>.003</td>
<td>.003</td>
<td>1.190</td>
<td>.29</td>
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<tr>
<td>Interaction (A x B)</td>
<td>1</td>
<td>.006</td>
<td>.006</td>
<td>2.277</td>
<td>.14</td>
</tr>
<tr>
<td>Residual</td>
<td>20</td>
<td>.056</td>
<td>.003</td>
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<td></td>
</tr>
<tr>
<td>Total</td>
<td>23</td>
<td>.071</td>
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</tbody>
</table>

*Probability of rejecting a true null hypothesis*
As with many empirical studies dealing with student behavior, it was difficult to completely isolate every specific variable relating to error correction strategies of written compositions. Therefore, several interpretations of the results are possible.

One interpretation is that supplying the correct form of an error was an overly direct error correction strategy for most of the intermediate students. Corder (1967), Gorbet (1974), and Valdman (1975) propose that supplying the correct form might actually prevent the learner from testing alternate hypotheses that could lead to an acceptable lexical item or grammatical structure in the target language. This interpretation of the results of the study provides some evidence to support that position. Perhaps a discovery approach, combining teacher guidance with self or peer correction would be a more effective error correction strategy.  

Another interpretation could be that students were unable to remember and profit from the many corrections they received over the six weeks of treatment. Indeed, many students asked to take home their corrected compositions in order to compare the errors they made on previous compositions. (Obviously, during the correction period, these requests had to be diplomatically denied to avoid possible experimental bias if students had discovered that their errors were treated differently.)

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3 In a recent study, Witbeck (1976) found that peer correction procedures result in increasingly more accurate and responsible written work for most students.

4 At the completion of the English course, students received xeroxed copies of their compositions.
A third interpretation is that the taxonomy of global and local errors was not refined enough for the correction of written errors. Put differently, students might have been able to improve their communicative and linguistic proficiency much more if particular errors had been corrected instead of merely global or global and local errors. For example, those students who had low communicative proficiency made very many errors in subject-verb agreement on their compositions. An examination of Table 3 indicates that the students in this low group whose global and local errors were corrected, reduced their average local error ratio (.098) far greater than students in the same communicative grouping who received correction of their global errors only (.166). The substantial difference between these two means may be attributable to the internalization of rules for subject-verb agreement among Treatment A2 students as opposed to students who received Treatment A1.

A final explanation to account for the statistically insignificant effect of the independent variables is that the sample population of the study was too small. Tables 1 and 3 indicate that the largest cell size for any one group was 7. Cell sizes of 20-30 each would greatly increase the statistical reliability of differences among treatment groups as would the use of a control group consisting of students who write compositions without receiving correction of their errors (at least during the experiment).

An Additional Finding

An unexpected finding in this study was the substantial increase (30%) in the number of words students wrote on the composition posttest.
(10,366) compared to the number of words they wrote on the composition pretest (7,966). It seems reasonable to suggest that the more confident the students became in expressing themselves in written English, the more words they produced. Brière (1966) also found that students showed a spectacular increase (161%) in the total word output on the composition posttests compared to the number of words they wrote on their composition pretests.

Conclusions

The purpose of this study was to examine which errors affect a students' communicative and linguistic proficiency in written English and to determine experimentally the effectiveness of correcting students' written compositions in different ways. The findings of the study provide some evidence that the communicative proficiency in the written work of intermediate students of ESL depends rather heavily upon an adequate knowledge of vocabulary and upon the proper use of prepositions and pronouns. The results further indicate that linguistic proficiency depends on knowledge of the subtle connotations of English lexicon, on skill in using prepositions precisely, on making subjects and verbs agree, on using the simple past and past perfect tenses correctly, and on writing sentences that conform to the demands of English word order. The selective approach to error correction used in this investigation did not improve students' communicative or linguistic proficiency.

Richards (1976) recommends that a component of massive vocabulary expansion should be a major feature of a second language program for intermediate and advanced students.
proficiency in written English any more substantially than did correcting all composition errors.

A great deal more empirical research is needed to determine the communicative effect of students' written errors and to find more effective ways to correct such errors. For the present, the development of instructional techniques and materials for facilitating communicative and linguistic proficiency in the ESL classroom largely depends upon the professional responsibility and personal integrity of the teacher. He or she must provide students with effective and creative activities and exercises to help learners become more self-sufficient and self-confident when writing in English.
REFERENCES


DOCUMENT NO. 7: "ADULT FUNCTIONAL COMPETENCY: A SUMMARY"

Introduction

Occasionally a document to be abstracted will not fall neatly into one of the two previously examined categories. A few documents have some parts that seem more suitable for abstracting in the informative mode and other parts more suitable for treatment in the indicative mode. Perhaps, for example: a research report is accompanied by substantial amounts of statistical data or extensive appendices that require detailing; a curriculum guide is prefaced by a significant description of the curriculum design and goals; or an extensive bibliography that needs description is preceded by useful information on its development and the selection criteria for its contents.

In these instances, and in the examples that follow, the abstract with the greatest clarity and the most accurate representation of the document may well be one written in the "mixed mode," that is, a combination of the informative and the indicative. It is named aptly (if not with originality) the "Informative/Indicative"; some have affectionately tagged it the "Infordicative."

Typically, an abstract written in the mixed mode should begin in the informative mode, presenting information from the author's point of view. This should be followed by an obvious switch to the indicative mode, with a detailed description of the relevant contents of the document. Because it is
necessary that the abstractor fully understand the distinctions between informative and indicative abstracts first, the informative/indicative should be attempted only by experienced abstractors who have mastered the other two modes.

In approaching any document an abstractor should initially conceive of the abstract as either informative or indicative. If, however, either of these modes would fail to represent the document accurately, then the informative/indicative may be considered. The following cautions are suggested for writing the mixed mode:

(a) Use the informative mode first. The switch from informative to indicative provides an easier transition for the reader, and is more easily accomplished by the abstractor, than a switch from indicative to informative.

(b) Make the transition from informative to indicative as clearly and obviously as possible. The Processing Manual states that "the reader must never be unsure as to whether the viewpoint of the words being read is that of the author or that of the abstractor."

(c) Do not have multiple flip-flops between informative and indicative! Only one change of mode is usually justifiable.

(d) Do not use the mixed mode for an opinion paper, as the changing point of view of the mixed abstract could confuse the reader, making it unclear as to whether the opinions are the author's or the abstractor's.
1. Characteristics of the document type

Although no specific types of document typically require an informative/indicative abstract, an important factor should be considered when deciding whether to write an "infordicative" abstract: the proportion and significance of material that is substantive text (crying out for informative treatment) compared to the proportion and significance of that which can only be handled indicatively.

The following documents would probably be represented most effectively by an informative/indicative abstract:

a. A conference report, of which one-third consists of an overview of purpose, a description of participants and their interaction, and a distillation of major issues identified and consensus reached (informative); two-thirds consists of summaries of individual presentations, a background paper, a panel discussion, outlines, and lists of resources (indicative).

b. The annual report of a research organization, of which half summarizes the year's goals, major accomplishments, and new directions (informative); the other half consists of individual project summaries, financial reports, and staffing and work flow charts (indicative).

c. A statistical report that consists mainly of data tables for use as a resource (indicative), but which contains a summary analysis of trends the data support (informative).

NOTE: In the case of a document that is best treated informatively but that contains significant tables, appendixes, charts, etc. not requiring description, an informative abstract should be written, with an indicative sentence added at the end, in parentheses to indicate the change of mode. For example, "...Exceptions to these
generalizations were in the areas of the historical foundations of language, syntactical skills, and literary works. (Appendixes contain questionnaires and related materials.)

2. What a practiced eye will look for in such a document

As with previous workbook documents, both the content and the format of Document 7 should be considered and reflected in the abstract. The experienced abstractor, therefore, will first determine whether this document is a straightforward report of research, in which case it should be represented by an informative abstract. When an initial examination reveals that the document contains both a research report and additional materials significant enough to require description, an indicative abstract might then be considered. But that raises the question of what to do with discussion of the research—its background, implementation, and results. It quickly becomes apparent that this is a good candidate for an informative/indicative abstract and that the abstractor should both: (1) report the research and (2) describe the sections of the document.

3. Parts of the document on which the abstract should be based

Since the first section of an informative/indicative abstract should be in the informative mode, this section should be written from the author's point of view and should condense the information upon which the document is based (in this case, parts I and II of the document).

Following the very important transitional sentence, the second section of the abstract will then describe the document or the parts of the document not covered in the first section (in this case, parts III, IV, and V and the appended objectives).
4. **Essential features of the content of the abstract**

The abstract for this document must contain the following elements:

a. An overview of the project objectives, research, model, and findings.

b. A transitional statement, identifying the change from the informative mode to the indicative mode. This is a very important feature of the *mixed mode abstract*, because the reader must always be aware of the switch in point of view.

c. A brief description of the remaining contents of the document.

Please note that the proportion of informative text to indicative text may vary. For some documents, the division may be about equal, while for others, the split may be one-third indicative to two-thirds informative, or the reverse. However, the most common proportion is two-thirds informative to one-third indicative.
Sample Abstract

Objectives of the Adult Performance Level (APL) project were to specify the competencies that are functional to educational and economic success in the United States and to develop devices for assessing those competencies. The project involved a research review, surveys of state and federal agencies, adult needs conferences, and interviews with undereducated and underemployed persons. The resulting APL model depicts adult competency as the application of individual capabilities (communication skills, computation skills, problem solving skills, and interpersonal relations skills) to societal requirements—the general knowledge areas of consumer economics, occupational knowledge, community resources, health, and government and law. Assessment of a national sample of adults showed that approximately one-fifth are functioning with difficulty. Following the summary of theory and methodology, this report presents results of the national survey according to three competency levels (function with difficulty, functional, and proficient) by knowledge areas and skills, and by demographic groupings. The report also summarizes validity and reliability information and suggests implications for educational practice. An appendix contains the APL objectives for functional competency in each of the five knowledge areas.
5. Indexable Concepts

The indexable concepts of this document may be listed as follows:

- Functional competency
- Performance/skills
- Adults/adult basic education
- Competency assessment
- Success factors
- Educational needs
- Reliability/validity
- Surveys
- Demographic Factors
- Competency levels

Two challenges are at hand: (1) to translate these concepts into descriptors or identifiers, and (2) to decide which are major and which are minor concepts in the document. Let's examine the concepts one by one.

"Functional competency," a concept which appears in the title and which describes the major subject area of the document, is not listed in the Thesaurus. The point is made in the document that "functional competency" is used throughout the report rather than "literacy," because the stereotypical idea of literacy is largely unrelated to the pragmatic requirements for adult life in this country. However, when we look at the scope note for the descriptor FUNCTIONAL LITERACY, we see that it would be an acceptable near-synonym for use as a major term on this document, and we select it. An RT ADULT LITERACY is relevant to the scope of the document and is selected as a minor term.

Because the scope of FUNCTIONAL LITERACY is not broad enough to cover all skills identified in the document's "functional competency" model, we must seek inclusive terminology.

The document describes a process of translating identified competencies (knowledges and skills) into performance requirements called "objectives" in
four skill areas: communication, computation, problem solving, and interpersonal relations. Since the four specific areas are not dealt with in enough depth to be indexable, we seek broader terms to cover them. MINIMUM COMPETENCIES is for the more academic skills, but DAILY LIVING SKILLS was also selected by many indexers to cover the social areas. Together they seem to cover the concept adequately and are both given major status.

The "objectives" or "performance requirements" listed at the back of the document (into which competencies/skills were translated for purposes of measurement and development of curriculum) were further indexed by several indexers as "Educational Objectives" or "Measurement Objectives." Most, however, felt that the competencies/skills terms were adequate to cover it all. The document uses the words "minimum performance criteria." The scope note of "Performance Criteria," an invalid descriptor, leads the indexer to EVALUATION CRITERIA, which appears to be more suitable than the "objectives" terms. It is selected as a minor descriptor.

Our indexing instructions are to assign a population term to identify the educational level being studied, or toward which the document is directed. Looking at the list of fourteen Educational Level terms (in front of the Thesaurus and in the Indexing Section of the Processing Manual), we do not find "Adult Education," although it is a descriptor. "Adult Basic Education" and "Postsecondary Education" do appear on the list. We select ADULT BASIC EDUCATION because the scope note mentions the types of skills discussed in the document. At this time, we must decide whether to enter ADULT BASIC EDUCATION as a major or minor term. We decide to make it
minor because the discussion of application of the study to adult basic education constitutes only about three pages of the total document.

Another population term, ADULTS, is chosen to name the subjects of the study. It is made major because it is a title term, and is basic to the whole context, particularly in light of the fact that many studies of minimum competencies, particularly at this basic level, are of school age children rather than adults.

This document is concerned with "undereducated, underemployed, unsuccessful" adults, and an additional population term is needed to cover this context. The descriptor DISADVANTAGED is appropriate and is given major status. Although the scope note warns to "use a more specific term if possible," the options are limited to "Disadvantaged Youth," "Economically Disadvantaged," and "Educationally Disadvantaged." The first of these alternatives is off target; the others are too narrow.

The report deals with assessment of the competency levels of U.S. adults by means of a national survey. Since "assessment" alone does not appear in the Thesaurus, we look under "Measurement," the scope note for which tells us to see also "Testing" and "Evaluation." Looking at the displays for these terms, we find that a narrower term to Testing, MINIMUM COMPETENCY TESTING, appears. Its scope note indicates that it describes the subject content of this document, and since our indexing instructions are to index to the level of specificity of the document, we select it as a major term, rather than the broader term, "Testing."
Several indexers selected EDUCATIONAL ASSESSMENT as a minor term. The scope note seems appropriate to the broader context of purpose and implications for the study referred to throughout the document. Minor terms selected for the document, in addition to ADULT LITERACY, ADULT BASIC EDUCATION, EVALUATION CRITERIA, and EDUCATIONAL ASSESSMENT are:

SUCCESS, a UF for "Success Factors."

EDUCATIONAL NEEDS, which exactly matches a Thesaurus descriptor.

TEST RELIABILITY and TEST VALIDITY, narrower terms to "Reliability" and "Validity," which we select because we wish to index to the level of specificity of the document.

NATIONAL SURVEYS, a narrower term to "Surveys," also selected for its specificity.

DEMOGRAPHY, which we decide will fill the bill for "Demographic Factors."

The final concept, "competency levels," was covered by most indexers with the identifier ADULT PERFORMANCE LEVEL, the Identifier Authority List term which also covers the project name itself--thus is major.

Other terms selected by some indexers but not confirmed by others because they were too broad, too narrow, or off target:

EDUCATIONAL RESEARCH, EVALUATION METHODS, MEASUREMENT TECHNIQUES, ADULT EDUCATION, SOCIAL PROBLEMS, INTERPERSONAL COMPETENCE, DECISION MAKING SKILLS, COMMUNICATION SKILLS, JOB SKILLS, CONSUMER ECONOMICS, HEALTH, COMMUNITY RESOURCES, BASIC SKILLS, KNOWLEDGE LEVEL, MEASUREMENT OBJECTIVES, EDUCATIONAL OBJECTIVES.
<table>
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<th>CONCEPTS</th>
<th>MAJOR</th>
<th>MINOR</th>
<th>JUSTIFICATION</th>
<th>TOO BROAD/OFF-TARGET</th>
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ADULT FUNCTIONAL COMPETENCY: A Summary

The University of Texas at Austin
Office of Continuing Education

Adult Performance Level Project

March 1975

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The University of Texas at Austin
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I. OBJECTIVES

The ability to use skills and knowledge with the functional competence needed for meeting the requirements of adult living is often called "functional literacy," "survival literacy," or, occasionally, "coping skills." The central objectives of the Adult Performance Level (APL) project are to specify the competencies which are functional to economic and educational success in today's society and to develop devices for assessing those competencies of the adult population of the United States.

Although millions, perhaps billions, of dollars have been spent on educational research, practically all of that money has been in support of studies designed to either develop educational programs or products or to compare the effectiveness or efficiency of competing programs and products. Unfortunately, questions of effectiveness and efficiency are irrelevant if the objectives on which programs are based are not appropriate.

Attempts to use the tools of behavioral and operations research to specify the transcendent objectives of educational systems have been practically nonexistent. Researchers are much more adept at answering the question, "Which reading program is most effective?" than the more fundamental question, "Why is reading important?" The Adult Performance Level project activities occur in the latter arena.

II. A THEORY AND METHODOLOGY OF ADULT FUNCTIONAL COMPETENCY

The APL theory of functional competency was arrived at in the following manner. The staff focused on the first objective of the project which was to identify basic requirements for adult living. Rather than rely upon expert opinion, four simultaneous lines of research were pursued.

1. Review of related literature and research. A wide variety of behavioral and social research was reviewed in order to find a way to categorize the needs of the undereducated and underemployed adult. In addition to the traditional sources of information, the documentation of dozens of studies or projects which had so-called disadvantaged groups as their target was collected and reviewed. Data gathered by the National Assessment of Educational Progress project was also of great use.

2. An extensive survey of state and federal agencies and foundations was conducted in order to identify characteristics which distinguished the successful from the unsuccessful adult. The assumption was that a major source of knowledge of minimum performance criteria existed in the experiences, accumulated data, and reports of professionals who deal with the minimally performing adult. For example, interviews were conducted with 49 individuals from 25 different state and federal agencies during the initial phase. These persons provided literature, studies, data, and comments relevant to the objectives of the project.

3. A series of conferences on adult needs was conducted in different regions of the country. Adult educators, members of the private sector (e.g., supervisors and personnel managers), and members of different state and federal
agencies were brought together to review APL progress and to add their insights and information to the pool.

4. A continuing series of semi-structured interviews with undereducated and underemployed persons was begun in order to gather some first-hand data on their felt needs.

The result of these activities, which occupied much of the first year of the study, was a taxonomy of adult needs which finally came to be called "general knowledge areas." These general areas, which may be considered as the content of adult literacy, are now known as (1) consumer economics, (2) occupational (or occupationally-related) knowledge, (3) community resources, (4) health, and (5) government and law.

Having identified the general knowledge areas which seemed to be the most critical to adult performance related to the acquisition of literacy, data which had been obtained were then reanalyzed. This time, however, the concern was not with the content of literacy, but with the skills involved. Four primary skills seemed to account for the vast majority of requirements placed on adults. These skills were named (1) communication skills (reading, writing, speaking, and listening), (2) computation skills, (3) problem solving skills, and (4) interpersonal relations skills.

By this time it should be clear that the concern of the APL project is much more than the stereotypical notion of literacy. Because the term "literacy" popularly connotes a low level of functioning (e.g., the ability to read and write one's name) which may have nothing to do with functional competence, we have chosen to excise the word "literacy" from the rest of this exposition. Instead, we will consistently use the phrase "functional competency." This practice seems to be preferable to reeducating the whole world concerning the true meaning of literacy.

APL findings allowed for the construction of a general theory of adult functional competency which is summarized below:

1. Functional competency is a construct which is meaningful only in a specific societal context. A corollary of this thesis is that, just as functional competency is culture-bound, it is perhaps even more closely bound to the technological state of a particular society. The person who is functionally competent in one society may be incompetent in another. Furthermore, as technology changes, the requirements for competency change.

2. Functional competency does not consist just of a single skill or even a set of skills. Relevant to the skills and general knowledge areas identified by APL research, functional competency is two-dimensional; it is best described as the application of a set of skills to a set of general knowledge areas (see Figure 1 on following page) which results from the requirements imposed upon members of a society. The APL project used this approach as the basic framework for generating the essential elements or performance requirements of adult functional competency.

3. Adult competency is a function of both individual capabilities and societal requirements. To restate the thesis: A person is functionally competent only to the extent that he or she can meet the requirements which are extant
<table>
<thead>
<tr>
<th>ENCOMPASSING CATEGORIES</th>
<th>CONSUMER ECONOMICS</th>
<th>OCCUPATIONAL KNOWLEDGE</th>
<th>HEALTH</th>
<th>COMMUNITY RESOURCES</th>
<th>GOVERNMENT AND LAW</th>
</tr>
</thead>
<tbody>
<tr>
<td>READING</td>
<td>Reading a newspaper grocery ad</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WRITING</td>
<td>Writing a grocery list</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPEAKING, LISTENING, VIEWING</td>
<td>Listening to an advertisement on the radio</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COMPUTATION</td>
<td>Computing the unit price of a grocery item</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PROBLEM SOLVING</td>
<td>Determining the best stores in which to shop</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INTERPERSONAL RELATIONS</td>
<td>Interacting with sales clerk successfully</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**FIGURE 1. The APL Model of Functional Competency.**
at a given point in time. If the requirements change and the individual does not adapt by either acquiring more or different knowledges and skills, then that person becomes less competent. Functional competence is a dynamic process, rather than a static state.

4. Functional competency is directly related in a mathematical sense to success in adult life. This is an operating assumption which underlies all APL research activities. However we define functional competency, we expect more competent adults to be more successful.

The APL project has drawn from a variety of educational, sociological, economic and behavioral studies to analyze different criteria of success. Based on this experience, an index of success is used which is a composite of (1) income, (2) level of education, and (3) occupational status. The assumption that competency is directly related to success implies that not only must the measure be derived from performances which are taken from the adult milieu, but that performance on such a measure must be positively correlated to success.

Once a general theory of functional competency had been developed and a taxonomy of associated adult performances created, the way was open for the evolution of the final APL methodology, which is summarized in the following diagram and discussion.

**Methodology**

1. **Specification of competencies.** From the sources of information identified previously, the performance requirements are aggregated into general requirement statements called "objectives." These objectives are keyed to the five APL general knowledge areas.
The set of objectives, taken as a whole, form the APL description of the behaviors which are important to adult competency. A copy of the latest APL objectives can be found at TAB A.

2. Development of performance indicators. Performance indicators are written for each competency. These are not "test items" in the traditional sense. Because they reflect requirements taken from adult life, they are small simulations of what is demanded of the adult by his or her society, and they require the adult to employ communication, problem-solving, and interpersonal relations skills in a variety of adult-related situations.

3. Field test and subsequent revision. Initial versions of the performance indicators were field tested with undereducated and underemployed adults. An initial round of field testing involving some 3,500 adults was conducted with the cooperation of Adult Basic Education programs in 30 states. Since that time, several thousand more adults have been tested in a number of states with subsequent versions of the performance indicators. Field testing and subsequent revision of performance indicators is a continuous, rather than one-time process, as indicated by the flow of activities in Figure 2.

Information gathered during the field test stage is used to respecify objectives and to improve the quality of performance indicators. These revised versions of both objectives and indicators are fed back to the original information sources for further revision and specification. The entire specification-field test-feedback-respecification process is cycled as many times as is necessary to reach consensus regarding a given objective, although typically three iterations are required. Each objective must also meet the empirical tests of non-triviality and of positive correlation to various indicators of success. (Those of you who are so inclined will recognize this method as a somewhat modified Delphi technique.)

4. National assessment of competency. The next step in the APL research process is to determine national levels of performance with regard to the objectives. Performance indicators are formatted into a series of interview schedules. With the assistance of a subcontractor (Opinion Research Corporation, Princeton, New Jersey) a representative sample of adults is drawn from the continental United States, excluding Alaska and Hawaii, and data are obtained from this sample. To date, five independent samples of the population have been drawn, each with a size of not less than 1,500, for a total of 7,500 adults. The overall precision of each sample is about 4% at the 95% confidence level for an item which breaks at the 50-50 level.

5. Determination of competency levels. The final stage of the process is to determine meaningful and well-defined competency levels from data gathered in the various national surveys. This determination is accomplished by (1) examining the performance of the population on an objective-by-objective basis, and (2) describing overall competency in terms of three levels based on an aggregate index (this aggregate index of functional competency is defined below). In essence, the nationally representative survey data are used to develop "competency profiles" which are associated with different levels of adult success as measured by income, job status, and education. Three such levels have been chosen and are called simply APL 1, APL 2, and APL 3.
APL 1

(ADULTS WHO FUNCTION WITH DIFFICULTY)

APL 1's are those adults whose mastery of competency objectives is associated with:

1. Inadequate income of poverty level or less
2. Inadequate education of eight years of school or fewer
3. Unemployment or occupations of low job status

APL 2

(FUNCTIONAL ADULTS)

APL 2's are those adults whose mastery of competency objectives is associated with:

1. Income of more than poverty level but no discretionary income
2. Education of nine to eleven years of school
3. Occupations falling in medial job status range

APL 3

(PROFICIENT ADULTS)

APL 3's are those adults whose mastery of competency objectives is associated with:

1. High levels of income or varying amounts of discretionary income
2. High levels of education, high school completion or more
3. High levels of job status

Notice that each of the three APL levels is a conjoint definition based on predicted income, education, and job status. Test data are used to "predict" an adult's success level, based on his functional competencies. Those persons classified as APL 1 are, by and large, "functionally incompetent" or adults who function with difficulty. APL 2's are competent, or adults functioning on a minimal level; and APL 3's are proficient in that their mastery of competency objectives is associated with the highest levels of income, job status and education.

Since the sample data are nationally representative, it is possible to estimate the proportion of the U.S. adult population which comprises each APL level. A discussion of these and other results follow.
III. "HOW FUNCTIONALLY COMPETENT ARE U.S. ADULTS?"

In general, the answer to the question posed by this section is "not as competent as we thought." Overall, approximately one-fifth of U.S. adults are functioning with difficulty. This estimate is based on a representative sample of adults performing on indicators which cover the five general knowledge areas and four skills.

The results of the APL national survey on functional competency will be presented as follows: (1) For each general knowledge area and skill area, the proportion of the population estimated to be in levels 1, 2, or 3 are reported; and (2) For each major demographic grouping, the proportion of the population estimated to be in levels 1, 2, or 3 are presented.

Competency levels by knowledge area and skills. The percentages of the adult population which are in APL Levels 1, 2, or 3 as determined by performance on those indicators in the survey which measure knowledge and skills are presented in the following table:

<table>
<thead>
<tr>
<th>Areas</th>
<th>APL Competency Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Occupational Knowledge</td>
<td>19.1</td>
</tr>
<tr>
<td>Consumer Economics</td>
<td>29.4</td>
</tr>
<tr>
<td>Government and Law</td>
<td>25.8</td>
</tr>
<tr>
<td>Health</td>
<td>21.3</td>
</tr>
<tr>
<td>Community Resources</td>
<td>22.6</td>
</tr>
<tr>
<td>Reading</td>
<td>21.7</td>
</tr>
<tr>
<td>Problem Solving</td>
<td>28.0</td>
</tr>
<tr>
<td>Computation</td>
<td>32.9</td>
</tr>
<tr>
<td>Writing</td>
<td>16.4</td>
</tr>
<tr>
<td>Overall Competency</td>
<td>19.7</td>
</tr>
</tbody>
</table>

In terms of the general knowledge areas, the greatest area of difficulty appears to be Consumer Economics. Almost 30% of the population falls into the lowest level (APL 1), while one-third of the population is categorized as APL 2. Translated into population figures, some 34.7 million adult Americans function with difficulty and an additional 39 million are functional, (but not proficient) in coping with basic requirements that are related to Consumer Economics.

The highest proportion of proficient persons (most able to cope) is found in relation to Community Resources. Over half of the U.S. population falls into APL level 3. This is followed by Occupational Knowledge; again almost half of the population is estimated to be proficient in dealing with occupation-related tasks. Although the least proportion of persons in comparison to all areas are in level 1 of Occupational Knowledge, this still indicates that about one of every five adults in the U.S. functions with difficulty or is unable to perform correctly on occupation-related performance indicators.

A greater proportion of people is unable to perform basic computations than the other skills. Approximately one-third of the population, or 39 million adults, functions with difficulty, and a little over one-fourth, or 29.5 million adults, is functional but not proficient in task performance on items requiring mathematical manipulation. The area of greatest competency in comparison with other
skills is in writing. However, even though almost three-fifths of the population performed adequately on tasks requiring writing skills, 16% of the adults in the U.S., or some 18.9 million persons, are unable to cope successfully.

Competency levels by demographic groupings. The purpose for selecting certain demographic groupings and comparing the results within a group is to discover trends which might arise. As seen in the definitions given earlier for the three APL competency levels, "success" was an important variable in the study. In general, the three success indices (level of education, family income and job status) demonstrate a positive relationship with performance. The percent of the population estimated to be in APL levels 1, 2, and 3 for each reporting group of relevant demographic variables, as indicated by task performance, is presented in the following table:

<table>
<thead>
<tr>
<th>Demographic Variables</th>
<th>APL Competency Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Education</td>
<td></td>
</tr>
<tr>
<td>0-3 years</td>
<td>85%</td>
</tr>
<tr>
<td>4-5</td>
<td>84</td>
</tr>
<tr>
<td>6-7</td>
<td>49</td>
</tr>
<tr>
<td>8-11</td>
<td>18</td>
</tr>
<tr>
<td>High school completed</td>
<td>11</td>
</tr>
<tr>
<td>Some college</td>
<td>9</td>
</tr>
<tr>
<td>College graduate plus</td>
<td>2</td>
</tr>
<tr>
<td>Family Income</td>
<td></td>
</tr>
<tr>
<td>under $5,000</td>
<td>40%</td>
</tr>
<tr>
<td>$5,000-$6,999</td>
<td>20</td>
</tr>
<tr>
<td>$7,000-$9,999</td>
<td>24</td>
</tr>
<tr>
<td>$10,000-$14,999</td>
<td>14</td>
</tr>
<tr>
<td>$15,000 plus</td>
<td>8</td>
</tr>
<tr>
<td>Job Status</td>
<td></td>
</tr>
<tr>
<td>Unskilled</td>
<td>30%</td>
</tr>
<tr>
<td>Semi-skilled</td>
<td>29</td>
</tr>
<tr>
<td>Skilled</td>
<td>24</td>
</tr>
<tr>
<td>Clerical-Sales</td>
<td>8</td>
</tr>
<tr>
<td>Professional-Managerial</td>
<td>11</td>
</tr>
<tr>
<td>Age</td>
<td></td>
</tr>
<tr>
<td>18-29</td>
<td>16%</td>
</tr>
<tr>
<td>30-39</td>
<td>11</td>
</tr>
<tr>
<td>40-49</td>
<td>19</td>
</tr>
<tr>
<td>50-59</td>
<td>28</td>
</tr>
<tr>
<td>60-65</td>
<td>35</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>17%</td>
</tr>
<tr>
<td>Female</td>
<td>23</td>
</tr>
</tbody>
</table>
### Demographic Variables

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>APL Competency Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>16% 34% 50%</td>
</tr>
<tr>
<td>Black</td>
<td>44% 39% 17%</td>
</tr>
<tr>
<td>Spanish-surname</td>
<td>56% 26% 18%</td>
</tr>
<tr>
<td>Other</td>
<td>26% 41% 33%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Occupational Status</th>
<th>APL Competency Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employed</td>
<td>15% 28% 57%</td>
</tr>
<tr>
<td>Unemployed</td>
<td>36% 30% 34%</td>
</tr>
<tr>
<td>Housewives</td>
<td>27% 38% 35%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Number in Household</th>
<th>APL Competency Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 person</td>
<td>21% 23% 50%</td>
</tr>
<tr>
<td>2-3</td>
<td>20% 35% 45%</td>
</tr>
<tr>
<td>4-5</td>
<td>19% 31% 50%</td>
</tr>
<tr>
<td>6-7</td>
<td>21% 33% 46%</td>
</tr>
<tr>
<td>8 plus</td>
<td>43% 22% 35%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Region</th>
<th>APL Competency Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northeast</td>
<td>16% 36% 48%</td>
</tr>
<tr>
<td>North Central</td>
<td>15% 42% 43%</td>
</tr>
<tr>
<td>South</td>
<td>25% 37% 38%</td>
</tr>
<tr>
<td>West</td>
<td>15% 35% 50%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Metropolitan Areas</th>
<th>APL Competency Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 million plus</td>
<td>21% 39% 40%</td>
</tr>
<tr>
<td>under 1 million</td>
<td>15% 38% 47%</td>
</tr>
<tr>
<td>Suburb</td>
<td>21% 32% 47%</td>
</tr>
<tr>
<td>Urban</td>
<td>14% 29% 57%</td>
</tr>
</tbody>
</table>

In relation to the "success" variables, for level of education the percentage of APL 1's rises steadily from about 2% for college graduates to about 85% for adults with less than 4 years of formal schooling. For family income, the percentage of functionally incompetent persons rises from about 8% for incomes of $15,000 or greater to 40% for those under $5,000 a year income. For occupation of chief wage earner, the percentage of APL 1's rises from about 11% for the professional and managerial category to approximately 30% for the unskilled.

There is a generally negative relationship between age and performance. Although the youngest group (18-29) does not have the lowest level of functionally incompetent adults, still the general trend is that the older the individual, the more likely he/she is incompetent. It appears that males and females perform about the same, although there are minor differences with males estimated to have a greater percentage of APL 3's than females. As for ethnic groups, it appears that there are great differences between Whites and all other minority groups. While 16% of the Whites are estimated to be functionally incompetent, about 44% of the Black and 56% of the Spanish-surname groups are estimated to be so. Here, as with other variables that have been discussed, the differences are probably due to the relatively lower levels of income, education, job status, and job opportunity found among minority groups in this country.
The employed show a smaller percentage of APL 1's (15%) than did housewives (27%) who, in turn, show a smaller percentage than did the unemployed (36%). Here, again, the differences in the "success" levels (i.e., amount of income, etc.) of especially the employed and unemployed may be used to explain the variations.

With regard to the number of people in the household, the only apparent difference in percentage of APL 1's occurred in households where more than 7 people lived. While for most household populations, the percentage of functional incompetents is about 20%, for the eight or greater group, the percentage rises to 43%.

The demographic comparison of regions of the U.S. indicates that while the Northeast, North Central and Western parts of the U.S. have about the same percentage of APL 1's, 2's, and 3's, the South has more APL 1's and less APL 3's. While all other regions of the country are estimated to have about 16% functionally incompetent adults, approximately 29% in the South are predicted to be APL 1's. Thus, a greater percentage of adults in the South appear to be in need of educational assistance than other parts of the country.

Rural areas have the greatest estimated percentage of APL 1's (27%) with cities over one million and suburbs slightly less (about 21%), and cities under one million and other urban areas having the least percentage of APL 1's.

IV. THE VALIDITY AND RELIABILITY OF APL

Validity

A strong case can be made for the validity of the APL objectives and the performance data which relate to them. Consider the following argument.

1. The objectives derive from inputs from the appropriate segments of society. These objectives, which form the APL description of adult functional competency, are the products of a research process which subjects each one to two critical tests: (1) Is the objective perceived as being important (valid) by undereducated and underemployed adults, employers, educators, and a number of other social service agencies who deal with "unsuccessful" adults? (2) Given that consensus among these groups is reached, is there evidence that mastery of a particular objective increases the probability of adult success, as indicated by income, education, and job status? Only if both questions are answered affirmatively is an objective considered to have been validated.

2. Great care was taken to construct performance indicators which were, within budgetary and time constraints, the best possible measures of the objectives. In addition to a technical review by consultants, performance indicators were also reviewed by the groups mentioned in 1. above, and were processed through several cycles of field testing and redesigning before being used on a national sample. The indicators are clearly not perfect in an absolute sense. It is impossible to obtain absolute consensus or to produce perfect correlation on any indicator. Nevertheless, there is good evidence that the APL performance indicators serve the purposes of the study very well.
3. Great care was also taken to design a national sample of adults and to exercise the proper control over field procedures in order to produce meaningful and precise results. As mentioned earlier, the sample design is straightforward, has a known precision, and is reproducible in the scientific sense. Sample design and field procedures were carried out according to specifications by an organization which has years of experience in drawing national samples and in conducting house-to-house surveys.

4. Perhaps the most important kind of "validity" is the acceptance and degree of use to which the objectives and test data will be put. Preliminary evidence indicates that, at least among the adult education community, there will be widespread acceptance and utilization. Already, several statewide efforts (notably Mississippi, Texas, and Alabama) are in progress to translate the objectives into relevant curriculum and staff development materials and methods.

Reliability

Although the term "reliability" is quite often used to refer to different constructs, "reliability" means temporal stability in the context of the APL project. That is, APL performance indicators are reliable to the extent that, assuming no major changes have taken place in either societal requirements or in the level of achievements of the general population, repeated measures produce identical results. Reliability is a function not only of the format and content of the interview itself, but of the sampling design and the field procedures. These features have just been discussed.

The traditional method of estimating reliability is repeated testing of a given sample. Coefficients of reliability calculated from total scores are used as decision variables for the estimation of reliability. No such coefficients are available at this time for APL measures, for two good reasons; (1) Reliability coefficients are based on total scores. Total scores are never calculated in the development of competency levels from APL data. (2) A test-retest design for a national sample would have cost at least $100,000. This was money which was better spent on development and validation of objectives.

There are, however, two valuable sources of information which are relevant to a discussion of the reliability of APL measures:

1. The fifth APL national survey consisted of a composite battery of items which had been used in previous surveys. Although changes were made in many of the items, some useful comparisons can be made on an item-by-item basis between results from earlier surveys and results on the final survey. Theoretically, if an item had not been changed at all, the estimates from two independent samples should differ only by the precision which each sample affords. For two independent samples of size 1,500, most items require a difference of 4% or more to indicate statistically significant differences (.05 level).

For the 39 items which were not changed between surveys, the mean absolute difference was 5.5% with most items having slightly higher p-values on the second sample than on the first. Although 5.5% is somewhat higher than the anticipated 4%, the reason for these results is quite clear. In order to minimize interview length (and maximize budgets), respondents in earlier surveys who failed to get a specified number of items correct during the initial portion of the interview were discontinued, under the assumption that most, if not all, of the remaining
responses would be incorrect (items were arranged in order of difficulty). For the final survey, this criterion was omitted, so that every respondent completed all parts of the interview. The net effect was a desirable overall respondents attempted practically every item. A side effect, however, was that p-values for easier items placed later in the interview tended to rise when compared with earlier results. Consequently, the overall difference between the samples is exaggerated. Most of that difference is due to a change in the criterion for completion, rather than factors relative to sample size, item format, or field procedure.

2. Another independent sample, drawn specifically for the State of Texas, using funds provided by the Texas Education Agency and the Governor's Office, was simultaneous with the final national survey. Although detailed results are too numerous to mention here, data from the Texas effort, which replicated the national one, are remarkably consistent with national trends. The relationship of test performance to variables such as income, education, occupational status, urbanicity, ethnicity, sex, age, and a number of other demographic variables is practically identical for Texas and the nation. Further, patterns of responses for the Texas sample are essentially identical to those of the national sample. Items with high p-values nationwide have high p-values in Texas, and those with low p-values nationwide have low p-values in Texas.

A final note of caution regarding the interpretation of APL results, particularly those dealing with the three levels of competency, must be sounded here. Those who are familiar with the APL objectives know very well that each one comprises a broad sector of human behavior. Clearly, it is fruitless to try to list and to measure all the behaviors which are embedded within a particular APL objective. Ultimately, one must operationalize the objective by selecting a set of behaviors as measures of that particular objective. All APL estimates of competency are based on such operational definitions, and their limitations must be kept in mind.

V. HOW DO WE MEET THE NEED?

The United States has been in a preeminent position of world power and influence for decades. Citizens of this country are justifiably proud of their country's accomplishments in industry, science, technology, the arts, and, perhaps most of all, in their system of universal free public education. Millions of mothers and fathers have intuitively subscribed to that tenet of the American dream which holds that education is the major avenue to success for their daughters and sons. Accordingly, Americans are, by many standards, the best educated and the most affluent people on earth.

Concomitant with this historical emphasis upon education and its benefits is the popular conception that "illiteracy" is a problem unique to the economically underdeveloped nations—the "Third World" countries. How could the United States, with its billions of dollars spent on education each year, have any significant literacy problem?

To be sure, we have been willing to commit a very small portion of our resources, private, state and federal, to literacy and related programs. The motivation behind this commitment is probably not due to a perception of a widespread need which is crucial to the well-being of our country. More likely, it is one of
noblesse oblige. For the most part, ABE has been perceived as a peripheral enterprise with an extremely limited clientele. After all, if only a minute fraction of the population is "illiterate," there can be no justification for spending more than a minute fraction of the nation’s resources toward eliminating the problem.

As long as "literacy" is conceived to be nothing more than the ability to read and write one’s name, or to score at some low grade level on a standardized test developed for children, then the United States probably does not have a significant problem. On the other hand, if the concern is with the adult who does not possess those skills and knowledges which are requisite to adult competence, then the results of the APL research suggest that there is, indeed, a widespread discrepancy in our adult population between what is required of them and what they achieve. It is surprising, perhaps even shocking, to suggest that approximately one of five Americans is incompetent or functions with difficulty and that about half of the adult population is merely functional and not at all proficient in necessary skills and knowledges.

The rest of this section deals with other implications and possible methods of implementation or dissemination. Because the original focus of the APL project was the ABE system, more attention will be given to that enterprise than to other educational systems. There are, however, implications for elementary and secondary education, which will also be presented.

Implications for Adult and Adult Basic Education

Let us summarize the products of the APL project to date. Essentially, the APL project was given the charge of specifying those competencies which are functional to adult life, with the implication that these competencies would become the core of objectives for ABE. Specifically, the APL project has accomplished the following tasks:

1. Developed and validated a series of objectives which comprise adult functional competency.

2. Conducted a series of national assessments of performance of adults with respect to these objectives.

3. Created, as a by-product of the research, a prototype test of adult functional competency.

The discussion which follows describes some activities or products which are indicated for ABE at four operational levels: the classroom or instructional level, the local program level, the state level, and the federal or national level.

-- At the CLASSROOM LEVEL (Teacher-student)

1. Curricula based on APL objectives. Obviously, the APL objectives form the core around which ABE curricula may be constructed. The forms which these curricula might take could, and probably will, be quite varied in order to meet local requirements. As mentioned earlier, several major curricula development efforts are already underway.
2. Diagnostic, placement, and assessment devices. The APL study has built a solid research base for developing measures or overall student progress, pacing measures, such as curriculum-embedded tests, and devices used for placement or diagnosis.

--- At the LOCAL PROGRAM LEVEL (Local Program Director)

1. Guidelines for program objectives. Much curricula development work in ABE is conducted at this level. The APL objectives form a valuable set of guidelines for developing local curricula.

2. Local program effectiveness assessment. Because of the ambiguity regarding the instructional goals of ABE, local programs have traditionally had difficulty in documenting or measuring progress. Since the APL research has specified objectives and suggested ways of measuring behavior related to these objectives, an opportunity exists for local programs to meaningfully assess their effectiveness.

3. Staff Development. Any APL curriculum effort will require extensive training and development of local staff. For more details, see "Staff Development" under the State Level.

--- At the STATE LEVEL (State Director of ABE and other concerned State Officials)

1. State guidelines or foci for instructional objectives. Since education is properly a function of the state, the state department of education, in the form of the state director of adult education and his or her staff, has an opportunity to take the leadership in providing comprehensive programs dealing with basic education for adult life. With appropriate input from other state agencies, state-level officials can provide guidelines and direct resources to develop instructional programs which address the functional competencies identified by the APL project.

2. Statewide instructional effectiveness assessment. States have traditionally experienced difficulty in collecting evidence regarding the effectiveness of their programs. APL objectives and data can form a base upon which to meaningfully document statewide ABE program progress, as well as to provide a framework for reporting to the federal level.

Related to the function of assessing instructional effectiveness, is the possibility of conducting statewide competency assessments. Even though national levels of performance are known, APL surveys do not provide enough precision to describe a particular state. Since states are bound to differ with respect to performance on different APL objectives, conducting state assessments of adult competence could provide extremely valuable data for planning programs.

3. Staff Development. Preliminary experience with curricula designed around APL objectives indicates that teachers will require significant retraining in order to function effectively in providing basic education for adult life. These efforts which are now underway utilize the teacher more as an instructional manager and resource person rather than in the traditional role of lecturer and imparter of knowledge. Furthermore, there are strong suggestions that future APL-based curricula will require fulltime, highly trained teachers. These requirements certainly have implications for staff development and for teacher certification, which are primary concerns of the state director.
At the NATIONAL LEVEL (OE)

1. National Dissemination of APL objectives. Although the Office of Education is clearly not in the business of setting national educational standards, there is nevertheless the opportunity to provide leadership which can come only from this level in disseminating the objectives as suggested foci for programs dealing with undereducated adults. The Office of Education, working with a variety of state agencies and other federal agencies, can have a major impact on educational practices at every level insuring that the results of the study and its implications for practice are well known throughout the educational and social service communities.

2. National Dissemination of APL Data. The Office of Education now has at its command a process which can meaningfully describe the level of competency of the adult population of the U.S. For reasons similar to those described above, the Office of Education has an opportunity to provide guidance, leadership, and assistance to states which it never had before. The ways in which this process can be used are numerous: Assessing the effectiveness of federally-funded programs, developing more useful reporting procedures, and maintaining a continuous assessment of national literacy levels over time are only a few of them.

Implications for Elementary and Secondary Education

The astute reader will have perceived by now that (assuming the research is any good) the implications of APL research are by no means confined to Adult or Adult Basic Education. If it is true that a significant proportion of Americans does not possess important skills and competencies, then it is patently wasteful of human and financial resources to wait until persons reach adulthood to begin to address those needs.

When one examines the APL objectives, it is interesting to compare the competencies described in the APL objectives to the curricular offerings typically found in elementary and secondary education. A brief examination will quickly reveal that, although many of them are indirectly addressed, not much of the typical school day is spent in focus on the objectives per se. This is not to indict the elementary and secondary systems—too much of that has occurred already. The findings do suggest, however, that to the extent that producing functionally competent adults is an important goal of elementary and secondary education, state-local education would do well to examine the functional competencies vis-a-vis their curricula and state requirements for high school completion.

Some states, notably Oregon, have already begun requiring students to complete a series of adult life-related performance tasks before awarding certification of high school completion. This is the kind of practice which seems to be entirely consonant with the APL findings.

To Summarize

Because of precedent and tradition, "literacy" is a static, low-level concept which is largely unrelated to the pragmatic requirements for adult life in this country. Using the term "functional competence," the APL project has developed a research process which has identified competencies which are important to success as adults. Using an assessment method which stems from viewing functional competence as a function of individual capabilities and societal requirements, the APL project has produced data which suggest that, contrary to popular
belief, many adults do not have the basic education for living which is indicated for even minimal levels of success. These results, and the objectives upon which they are based, can have profound implications for educational practice, and form a base of information and evidence which can be used to make different educational systems more responsive to the needs of both their clients and society.
A NOTE CONCERNING APL GOALS, OBJECTIVES, AND TASKS

Attached is the current version of the APL description of competency. This description is organized by general knowledge area. Within each general knowledge area, requirements are described in three successive levels of detail.

The first level is a goal statement, which is a broad description of capability which the functionally competent adult should possess for that particular general knowledge area.

The goal statement is defined by a series of intermediate-level requirements called objectives. The objective is the fundamental building block of the APL description of competency. Some degree of mastery of these objectives, the degree depending on the adult's individual milieu, is required for true functional competency.

Each objective, in turn, is described by a series of situation-specific requirements called tasks. Mastery of an objective is manifested by the individual adult's ability to perform a group of tasks -- to respond appropriately to specific situations which reflect the requirements of the objective. Since the tasks are currently undergoing a thorough revision, only the goals and objectives are included in this presentation.

The implications of this caveat concerning the APL tasks become especially important when one attempts to translate the APL description of competency into curriculum or other training programs for undereducated adults. When used for this purpose, tasks should be considered as paradigms or general guidelines. They should not be interpreted as being engraved in stone, because it is the objective that is the most important element in the requirements for functional competency.
GOAL: TO DEVELOP A LEVEL OF OCCUPATIONAL KNOWLEDGE WHICH WILL ENABLE ADULTS TO SECURE EMPLOYMENT IN ACCORDANCE WITH THEIR INDIVIDUAL NEEDS AND INTERESTS.

1. OBJECTIVE: To build an oral and written vocabulary related to occupational knowledge.

2. OBJECTIVE: To identify sources of information (e.g., radio broadcasts, newspapers, etc.) which may lead to employment.

3. OBJECTIVE: To define occupational categories in terms of the education and job experience required, and to know minimum requirements of given occupations.

4. OBJECTIVE: To be aware of vocational testing and counseling methods which help prospective employees recognize job interests and qualifications.

5. OBJECTIVE: To understand the differences among commercial employment agencies, government employment agencies and private employers.

6. OBJECTIVE: To prepare for job applications and interviews.

7. OBJECTIVE: To know standards of behavior for various types of employment.

8. OBJECTIVE: To know attributes and skills which may lead to promotion.

9. OBJECTIVE: To know the financial and legal aspects of employment.
10. OBJECTIVE: To understand aspects of employment other than financial which would affect the individual's satisfaction with a job.

CONSUMER ECONOMICS

GOAL: TO MANAGE A FAMILY ECONOMY AND TO DEMONSTRATE AN AWARENESS OF SOUND PURCHASING PRINCIPLES.

1. OBJECTIVE: To build an oral and written consumer economics vocabulary. This should be an ongoing process through each objective.

2. OBJECTIVE: To be able to count and convert coins and currency, and to convert weights and measures using measurement tables and mathematical operations.

3. OBJECTIVE: To understand the concepts of sales tax and income tax.

4. OBJECTIVE: To be aware of the basic principles of money management, including knowing the basics of consumer decision-making.

5. OBJECTIVE: To use catalogs, consumer guides and other reference documents to select goods and services.

6. OBJECTIVE: To be aware of factors that affect costs of goods and services and to determine the most economical places to shop.

7. OBJECTIVE: To be aware of the principles of comparison shopping, and to be aware of the relationship of price to quality among brand names, and between "firsts" and "seconds" and to be able to substitute economy for quality according to individual needs.
8. OBJECTIVE: To know the various methods by which goods are packaged and to know which methods are most cost-effective in terms of quality and storage.

9. OBJECTIVE: To be able to take advantage of sales by knowing where to find them, by planning for their eventuality, and by being able to determine which are of worthwhile value to the individual.

10. OBJECTIVE: To be aware of advertising techniques and to recognize appropriate and inappropriate forms of selling and advertising.

11. OBJECTIVE: To know how to order food and to tip in a restaurant.

12. OBJECTIVE: To be aware of different stores where home furnishings can be purchased and to determine the best buys for essential and luxury items based on individual needs and resources.

13. OBJECTIVE: To determine housing needs and to know how to obtain housing and utilities based on those needs.

14. OBJECTIVE: To know how to buy and maintain a car economically.

15. OBJECTIVE: To know basic procedures for the care and upkeep of personal possessions (home, furniture, car, clothing, etc.) and to be able to use resources relating to such care.

16. OBJECTIVE: To know the various media of exchange and to be familiar with banking services in the community.

17. OBJECTIVE: To develop an understanding of credit systems.

18. OBJECTIVE: To collect information concerning the types of insurance available and to be able to select the best insurance for the individual and his family.
19. **OBJECTIVE:** To know the resources available to the consumer in the face of misleading and/or fraudulent product/service claims or tactics.

20. **OBJECTIVE:** To understand the implication of consumption vis-a-vis finite world resources and to recognize that each individual's pattern of consumption influences the general welfare.

**HEALTH**

**GOAL:** To insure good mental and physical health for the individual and his family.

1. **OBJECTIVE:** To develop a working vocabulary related to health, especially as it relates to basic medical and physiological terminology, for accurate reporting of symptoms and following a doctor's directions in applying treatments.

2. **OBJECTIVE:** To understand how basic safety measures can prevent accidents and injuries and to recognize potential hazards, especially as such hazards relate to home and occupational safety.

3. **OBJECTIVE:** To know medical and health services in the community.

4. **OBJECTIVE:** To understand the physical and psychological influences of pregnancy as well as the need for proper prenatal care.

5. **OBJECTIVE:** To understand the importance of family planning, its physical, psychological, financial and religious implications and to have knowledge of both effective and ineffective methods of birth control.

6. **OBJECTIVE:** To understand general child rearing practices and procedures for guarding the health and safety of a child and to apply proper action in
accordance with needs and resources.

7. OBJECTIVE: To understand the special health needs and concerns of the adolescent (and his parents) and to become acquainted with some ways to ease the transition from childhood to adulthood.

8. OBJECTIVE: To understand what contributes to good mental and physical health and to apply this understanding toward preventive care and health maintenance.

9. OBJECTIVE: To understand the interaction of self as a member of small groups (family, work, club, class) and to use this understanding to promote effective interpersonal coping skills.

10. OBJECTIVE: To be able to apply first aid in emergencies and to inform proper authorities of sudden illnesses, various accidents or natural disasters.

11. OBJECTIVE: To plan for health or medical insurance and to be aware of available financial assistance for medical or health problems.

12. OBJECTIVE: To understand what constitutes a proper diet and to plan meals according to individual needs and resources.

13. OBJECTIVE: To understand federal control of various drugs and items for health protection and to understand how public reaction influences this control.

GOVERNMENT AND LAW

GOAL: TO PROMOTE AN UNDERSTANDING OF SOCIETY THROUGH GOVERNMENT AND LAW AND TO BE AWARE OF GOVERNMENTAL FUNCTIONS, AGENCIES AND REGULATIONS WHICH DEFINE INDIVIDUAL RIGHTS AND OBLIGATIONS.
1. OBJECTIVE: To develop a working vocabulary related to government and law in order to understand their functions in society and in the personal life of the individual. This should be an ongoing process as each objective is covered.

2. OBJECTIVE: To develop an understanding of the structure and functioning of the federal government.

3. OBJECTIVE: To investigate the relationship between the individual citizen and the government.

4. OBJECTIVE: To understand the relationship between the individual and the legal system.

5. OBJECTIVE: To obtain a working knowledge of the various legal documents which the individual will need as a member of society.

6. OBJECTIVE: To explore the relationship between government services and the American tax system.

COMMUNITY RESOURCES

GOAL: TO UNDERSTAND THAT COMMUNITY RESOURCES, INCLUDING TRANSPORTATION SYSTEMS, ARE UTILIZED BY INDIVIDUALS IN SOCIETY IN ORDER TO OBTAIN A SATISFACTORY MODE OF LIVING.

1. OBJECTIVE: To build an oral and written vocabulary pertaining to community resources and to define community resources in terms of (a) services to community members and (b) services to persons outside the community or non self-supporting members of society (unemployed, criminals, insane, etc.)
2-3. OBJECTIVE: To know the types of community services provided for members of society including the purposes of and how to gain access to these services.

4. OBJECTIVE: To understand how and when to apply for community services, such as Social Security, and Medicare.

5. OBJECTIVE: To know various recreational services available in the community.

6. OBJECTIVE: To be able to utilize information services of the community.

7. OBJECTIVE: To be aware of the people and agencies in the community whose job it is to register and act upon citizen complaints.

SUBSET: TRANSPORTATION

8. OBJECTIVE: To build an oral and written vocabulary of transportation terms, including car insurance terms.

9. OBJECTIVE: To be able to recognize and utilize signs related to transportation needs.

10. OBJECTIVE: To develop a familiarity with transportation schedules, and to calculate fares.

11. OBJECTIVE: To be able to find and utilize information facilities.

12. OBJECTIVE: To learn the use of maps relating to travel needs.
13. OBJECTIVE: To recognize time zone boundaries and understand the concept of daylight saving time.

14. OBJECTIVE: To request information on and make verbal and written travel and overnight accommodations/reservations.

15. OBJECTIVE: To understand the relationship between transportation and public problems.

16. OBJECTIVE: To understand driving regulations, including safety, courtesy, and rules such as having a driver's license, car license plates, etc.
1. Characteristics of the document type

It is not uncommon to get "mixed blessing" documents to abstract. Such a composite document will be a combination of two or more document styles. For example, you might get a synthesis document with an extensive bibliography in the back, or a combination teacher/student guide with curricular material.

In this instance, we have a literature review in the front portion of the paper followed by an implications section which can be looked upon as a kind of guide. Usually a literature review will have an informative abstract and usually a guide will have an indicative abstract, so right away you know you have a problem.

This is the last document presented in the Workbook. What this means is that you are (should be!) ready to solo. We are going to let you decide whether to do an informative or indicative abstract (maybe, even an "infordicative" abstract as done for Document No. 7).

Would you like a little help?
2. **What a practiced eye will look for in this kind of document**

Bear in mind that we must reflect the conceptual weight of the document. This does not mean that you count pages on a composite document and then go the way of numbers. What is does mean is that the conceptual framework of the document must first be viewed as a whole, and then reduced to its disparate parts. In this document, we have a literature review with headings and a conclusion, followed by an implications (guide) section with headings and a conclusion.

Before you make your decision, here are some comments from the experienced abstractors as to which style they chose:

**Indicative Style**

There was too much material to be covered in an informative style. Also felt that points covered were too equally weighted to single any out for informative coverage.

The indicative style allows a tighter arrangement of the contents of the paper, which a discursive style wouldn't permit.

**Informative Style**

Although harder to write, the informative style offered a more direct presentation of the author's ideas.

Chose the informative style in order to tie the paper to earlier work and to be specific about method and findings.

So you see, even the old hands diverge on this one. What it really means is that whatever you do can't be very wrong. Must you do anything? There is an author abstract (ahah an easy way out!?) offered below for your consideration after you have examined the document.
Author Abstract

This study offers some implications for program development of research on motivational orientations, i.e., it investigates why adults participate in education. In 1961 Cyril Houle published "The Inquiring Mind," in which he reported on his efforts to identify the basic structure underlying the diverse reasons that people give for participating in adult education. Most research in this area has attempted to test and refine Cyril Houle's three-factor typology. Roger Bosher describes 14 studies since 1964. Morstain and Smart's research points out that Houle's typology can no longer be considered an adequate representation of reality. Although most motivational literature focuses mainly on identifying the general underlying structure of motivations, some attempts have been made to correlate motivational factors with participant and program characteristics such as sex, age, and socioeconomic status. The conclusion is that adult learners enroll for mixed motives. This motivational research has practical implications for program development.

Now you're on your own. DO NOT read on until you've done your abstract.
3. **Presentation of sample abstracts and discussion of stylistic alternatives**

First, you ought to know that the author abstract was rejected by all as being useless. Second, you should know that it's not a real author abstract (apologies to Gordon Darkenwald!). It was "fabricated" by the authors of this Workbook, not because we like playing tricks, but because we wanted to illustrate the problem of unquestioned reliance on author abstracts. If you used our abstract, perhaps you need to review the discussion on author abstracts for Document No. 6 to sharpen your critical eye (did you notice that the first sentence was a repeat of the title, that Boshier was misspelled, that most of the abstract was vague or general or redundant, and that the implications were left out?).

**Informative Abstract**

Awareness of the variety and complexity of motives that underlie on-going participation in continuing education is important for everyone in the field of adult education. "Motivational orientations" are constructs that identify the underlying structure of the diverse reasons people give for continuing their education. Motivational orientation research reflects learner needs, characteristics and interests, and has important implications for program development and content. Cyril Houle's pioneering three-factor typology (goal, activity, and learning orientations) has been supplanted by a more complex typology; most people apparently participate in adult education for mixed reasons, some of which are unrelated to learning per se or to course content. Major orientation factors appear to operate independently of individual characteristics such as age, sex, educational level, and socioeconomic status. While motivational orientation research does not provide any easy prescriptions for programming success, it does suggest some broad directions for more effective program development, particularly in terms of needs assessment, the promotional aspect of marketing educational services, and the design and management of learning activities.
Indicative Abstract

Selected research studies on motivation for participation in adult education are reviewed. Cyril Houle's pioneering three-factor typology (goal, activity, and learning orientations) is compared with Roger Boshier's more recent work with the Education Participation Scale (EPS). Six motivational factors identified in a study by B. Morstain and J. Smart are discussed; the factors are shown to tend not to be differentially associated with individual characteristics such as age, sex, educational level, and socioeconomic status. It is revealed that some of these factors are unrelated to course content or learning per se. The implications of these findings for program development in adult education are discussed. Practical strategies for securing information on motivational orientation from specialized target groups are described; marketing principles which would make use of findings from motivational orientation research to promote adult education programs are presented. Ways in which the design and conduct of learning activities can be adapted to meet the needs of adult students for meaningful social contact and intellectual stimulation are explored. Items comprising the six motivational orientation factors adapted from the EPS are appended.

Perhaps as never before you can now see the difference between an informative and an indicative abstract.

It is easy to see the broad conceptual overview provided by the informative abstract, and the ability to outline more specific bits of information allowed by the indicative abstract.

You might also notice the quotation marks used in the informative abstract to set off the author's use of motivational orientations. The use of this device alerts the user that this definition may or may not be unique to that author but does set the tone for the entire document.

Which abstract do you think is more relevant? For which kind of user? Do you think the informative one might answer the needs of a knowledgeable motivational orientation researcher while the indicative might be more useful to the seeker of background information?
While this particular document may not be in the scope area of your Clearinghouse, the day will hopefully come when you are familiar enough with your literature base and your users that a composite document will not be a terribly frustrating experience at all.

You might also remember that the Processing Manual decrees that wherever possible, an informative abstract should be done.

As a hint for future "mixed blessings," most of the experienced abstractors who chose the indicative style based their abstracts (remembering that no one liked the fabricated "author abstract") on the introduction, major headings, and conclusions. Most of those who chose the informative style used the same sections, plus the first paragraph under each major heading. Since the first paragraph usually serves as a mini-introduction for that section, you can see the wisdom of such a strategy. Regardless of style chosen, most everyone admitted to scanning ("skimming") the entire document.

As seen in the discussion for Document No. 7, a combination of the two styles would be a third possibility if the abstractor is able to provide a clear transition between the two and doesn't flip-flop back and forth. However, informative and indicative abstracts are ordinarily preferred over the "mixed-mode" alternative. None of the experienced abstractors chose to write a mixed-mode abstract for Document No. 8.

4. **Indexable Concepts**

Once again, you're sort of on your own. Do the little exercise about isolating the basic concepts. Are we talking about:
the use of motivational orientation research to determine why adults become involved in adult education programs?

the need to base adult education programs on needs assessments?

developing adult education programs?

Go, now, and do your indexing.

O.K., if we agreed on the basic concepts, then what kinds of areas can we break out?

a. Level/Population

*ADULT EDUCATION--Right on target. Documents indexed with ADULT EDUCATION do not ordinarily require a mandatory leveling term. "Adult education" overlaps all educational levels from "adult basic education" to "postsecondary education," and it is clear that such is the case with this document. CONTINUING EDUCATION (an NT of ADULT EDUCATION) is too specific for this document and should not be selected.

*STUDENT EDUCATIONAL OBJECTIVES--Right on target. The scope note clearly indicates that this concept includes "the reasons for [students] participating in a particular educational program."

STUDENT CHARACTERISTICS--We are talking about adult student characteristics. We don't have such a precoordinated term, so we have to decide how to make the concept available at the most access points. We already have ADULT EDUCATION, so using STUDENT CHARACTERISTICS coordinately will get us "Adult Education Student Characteristics." Using ADULT EDUCATION and ADULT STUDENTS would have missed the concept of characteristics--a concept which is important to the conceptualization of the document. We should still use ADULT STUDENTS as a minor, however, in order to round out the total concept.

PARTICIPANT CHARACTERISTICS--We are talking about characteristics of student participants in adult education.

b. Action Concepts

STUDENT PARTICIPATION and STUDENT MOTIVATION--On target, but made minor since manual access is provided by STUDENT EDUCATIONAL OBJECTIVES (the latter term is even more on target). LEARNING MOTIVATION is too specific; a desire to "learn" is only one factor among the motivational orientations discussed in this document.
GOAL ORIENTATION--Comes the closest of all the orientation terms to being related to "individual orientation." ORIENTATION is rejected as being more concerned with physical or event relationships. SELF ACTUALIZATION is rejected as being too specific for the conceptual level of the document.

PROGRAM DEVELOPMENT--Right on target. This is what the Implications for Program Development section is all about. The document focuses on formulating designs and strategies for an effective adult education program. Used alone in a hand search this term will retrieve the document, and used coordinately will get "Adult Education Program Development." ADULT PROGRAMS could be used as a minor to provide specificity.

PUBLICITY, MARKETING, and STUDENT RECRUITMENT can be used as minors to supplement and expand PROGRAM DEVELOPMENT.

NEEDS ASSESSMENT--Right on target. INDIVIDUAL NEEDS is too specific for the conceptualization in the paper. However, STUDENT NEEDS and STUDENT INTERESTS are acceptable as minors.

EDUCATIONAL ENVIRONMENT can be used as a minor to reflect the "coffee pot" concept since it is to be used for SCHOOL CLIMATE.

c. Identifier

Education Participation Scale--The questionnaire was used to identify the underlying motivational structures examined by this document.

d. Document/Publication Type

LITERATURE REVIEWS--The document is a combination of a literature review and a kind of guide. The appropriate Publication Type codes are 070 and 055. LITERATURE REVIEWS should be used as a descriptor to tag the 070 publication type. Since the 055 category and descriptor GUIDES are synonymous, GUIDES should not be used as a descriptor.

So, how did you do on your own? Feel ready to tackle just about any kind of document? We hope so. A lot of people poured time and energy into this product so that you could have an easier (and hopefully more productive) introduction to ERIC than they had.

We solicit comments and suggestions for possible future revisions of the Workbook and wish you the best in all your ERIC endeavors.
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Why Adults Participate in Education: Some Implications for Program Development of Research on Motivational Orientations*

Gordon G. Darkenwald
Rutgers University

Introduction

Two cardinal principles of adult education are that programs should be designed on the basis of needs-assessments and that learning activities should be compatible with the needs and learning styles of adults. Needs and interests, of course, are closely related to motivations for participation. Motivational orientations might be defined as constructs that identify the underlying structure of the diverse reasons that people give for continuing their education. Because motivational orientations reflect learner needs and interests, the research on this topic appears to have important implications for the program development process.

The question of why adults participate in education has long been of interest to adult educators. Prior to 1961, most conceptualizations of this fundamental question were primitive. Early efforts to identify motives relied mostly on crude checklists of reasons for participation or on direct questioning of persons who often were not fully aware of their reasons for participation. In 1961, Cyril Houle published The Inquiring Mind (5), in which he reported on his efforts to identify the basic structure underlying the diverse reasons that people give for participating in adult education. On the basis of in-depth interviews with 22 continuing learners, Houle

*Presentation to the faculty of the University Extension Division, Rutgers University, January 26, 1977.
formulated a three-factor typology. Houle's three types of adult learner include the Goal Oriented, Activity Oriented and Learning Oriented. Briefly, the goal oriented learner uses adult education as the means to a fairly clear-cut or predetermined end. Learning is pursued only if it can be put to use. The Activity Oriented learner participates primarily for social reasons, such as to be with others, engage in some interesting activity or meet new friends. Significantly, the content of the educational program is of secondary importance for this kind of learner. Finally, the adult who is Learning Oriented participates mainly for the sake of learning or knowledge itself. For such people learning is a natural and continuous part of living.

Houle's provocative study leads to a burgeoning of research activity concerned with motivational orientations. Most of the subsequent research has attempted to test and refine Houle's basic concepts. The best research has employed carefully developed measuring instruments and the statistical technique of factor analysis to probe the underlying structure of reasons for participation. In a recent review, Boshier (1) described fourteen studies since 1964 which employed factor analysis of a motivation instrument.

The most extensive recent studies (2) (3) (7) have yielded remarkably similar findings with very different populations of adult learners in the U.S., New Zealand and Canada. The population for the U.S. study (7) was 611 adults enrolled in a variety of evening credit courses at Glassboro State College in New Jersey. The New Zealand study (2) was based on responses from 233 adults in a variety of programs sponsored by three different institutions. The Canadian study population (3) consisted of 242 participants in non-credit evening classes conducted by two public school

325
systems and by the University of British Columbia. All three studies used the Education Participation Scale (EPS), a highly reliable instrument developed by Roger Boshier in New Zealand (2).

Before turning to the findings, it is important to review briefly the nature of factor analysis. This is a very complex statistical procedure. The simplest technical description I could find is this:

"Given an array of correlation coefficients for a set of variables, factor analytic techniques enable us to see whether some underlying pattern of relationships exists such that the data may be 're-arranged' or 'reduced' to a smaller set of factors or components that may be taken as source variables accounting for the observed interrelations in the data." (8:209)

Put more simply and in relation to the EPS questionnaire, factor analysis is a way of clustering related scale items so as to yield separate, independent constructs that reflect the underlying structure of responses to the instrument. The clusters, of course, are called factors. The factor names or labels are determined by the content of the items that cluster together in each separate factor.

Motivational Orientation Findings

As noted above, there is a striking degree of similarity in the findings of factor analytic studies of motivational orientations. However, inasmuch as there are some variations among studies, I will base the discussion of findings mainly on the results obtained by Morstain and Smart (7) at Glassboro State College here in New Jersey.

Morstain and Smart identified six factors which they labelled Social Relationships, External Expectations, Social Welfare, Professional Advancement, Escape/Stimulation and Cognitive Interest. (See attachment)
Social Relationships, which Boshier called Social Contact (2), reflects a desire to develop or improve one's relationships with other people. Individuals who score high on this factor indicate a need to make new friends, participate in group activities, and improve their social functioning.

External Expectations clearly reflects a degree of compulsion or pressure external to the individual to participate in educational activities. The items suggest that the individual is complying with the requirements or suggestions of someone else or of some agency or organization.

Social Welfare is indicative of an altruistic concern for other people, community betterment, or for mankind generally. Persons who score high on this factor see education as preparing them for service to others or for participation in community affairs.

Professional Advancement is strongly associated with improving one's occupational performance and status. The items reflect a concern for acquiring useful knowledge, credentials, and job-related skills.

Escape/Stimulation comprises two related dimensions -- a need to escape from routine, boring or frustrating situations and a desire to find intellectual stimulation -- to "stop myself from becoming a vegetable" -- as one EPS item puts it.

The final factor, Cognitive Interest, is identical to Houle's conception of the learning oriented participant. High scorers on this dimension value knowledge for its own sake rather than for instrumental purposes. For such people, learning is an integral part of living.

An immediate conclusion that one might draw from these findings is that the dynamics of motivation are more complex than Houle originally
envisioned. While Cognitive Interest is identical with Houle's Learning Oriented category, the other factors are much more concrete than Houle's broad categories of goal and activity orientation.

Relationship to Learner Characteristics and Program Content

While the motivational orientation literature has focused mainly on identifying the general underlying structure of motivations, some attempts have been made to correlate motivational factors with participant and program characteristics. In reviewing these correlations, one is impressed principally with how little they reveal. In general, individual characteristics such as sex, age and socio-economic status are only weakly associated with the motivational orientation factors. In other words, each of the six orientations seems to be equally important for men and women, younger adults and older adults, and people of relatively low as well as relatively high socio-economic status. There are, however, a few variations that are worth noting.

Before describing variations in importance for different groups, it should be noted that adult learners in general place the most important reasons for participation related to Cognitive Interest and Professional Advancement. Escape/Stimulation and Social Relationships tend to be rated least important (7:90). Interestingly, the mean importance scores for all factors, including Cognitive Interest and Professional Advancement, are rather low, ranging for example from 2.6 to 5.8 on a nine point scale (7:92). One logical interpretation is that most people have mixed motives for participation, which tend in general to depress the importance ratings for individual scale items.
Morstain and Smart (7) examined the relationships between sex and age and mean importance scores for each of their six motivational factors. They found that younger participants had somewhat higher mean scores on the Social Relationships factor and that men scored slightly higher than women on the External Expectations dimension. There was a slight tendency for women to place more importance on Cognitive Interest items.

Boshier (3) reported correlations between his factors for a random sample of 76 non-credit evening class participants. Among other things, he found a modest tendency for younger adults to enroll for External Expectations reasons and for older people to enroll for Cognitive Interest. In addition, people with less formal education and lower occupational status were more likely to enroll for Professional Advancement reasons.

While these differences in motivation are statistically significant, they are not great enough to have much practical significance for program planners. It is particularly worth noting that the data do not support common assumptions based on sex-role stereotypes. Women and men, for example, are equally likely to enroll for Professional Advancement as well as for Social Welfare and Social Relationships reasons.

One of the most interesting and important findings for program planners is Boshier's unpublished evidence that motivational orientations are only moderately associated with course content. Students in a non-credit acting class, for example, scored fairly high on Escape/Stimulation, but they scored even higher on Social Welfare. Boshier concluded that motives for participation and subject matter are related, but that adult learners enroll for mixed motives, some of which are not related to course content.
Conclusions Based on the Research Evidence

The findings of the motivational orientation research suggest the following principal conclusions:

(1) Studies in different countries with different populations of learners in different institutional settings have yielded very similar results. We can be reasonably confident that the research has identified important motivational factors underlying the general phenomenon of participation in comprehensive programs sponsored by school systems, colleges, and universities.

(2) Houle's three-factor typology, while a very useful starting point, can no longer be considered an adequate representation of reality. The recent research indicates that motives for participation are more complex than Houle originally envisioned.

(3) The major orientation factors, with some slight variations, appear to be valid for participants generally -- that is, they tend not to be differentially associated with individual characteristics such as age, sex, educational level and socio-economic status. Future research, however, may reveal motivational differences related to other variables, such as occupation, which have not been studied.

(4) Finally, most people appear to participate in adult education for mixed reasons, some of which are unrelated to learning per se or to course content. Many adults are constrained to participate by external demands while others respond to inner needs for social contact or intellectual stimulation. Motives cannot be inferred solely on the basis of course content or the nature of the learning activity.
Implications for Program Development

On the most general level, the major practical implication of the motivational orientation research may be its value in sensitizing program planners to the diversity and complexity of participant motivations. Pure logic would suggest that adults enroll in a course or other learning activity for the simple reason of acquiring the knowledge or skills inherent in the subject matter. In reality, however -- as my own research on disadvantaged adult learners (6) has also demonstrated -- people are not purely logical and participation in adult education reflects a variety of human needs, some of which are unrelated to the acquisition of skills and knowledge.

Obviously, this does not mean that program content or serious learning are unimportant concerns for learners or program planners. Engineers who enroll in an advanced course on pollution control technology want to learn about pollution control, but they may also be strongly motivated by social welfare concerns and by a desire for social contact with stimulating colleagues. Every adult educator can think of similar examples. The question is, now can we use our understanding of the nature and diversity of learner motivations to improve our programming activities? I think there are several practical implications related to broad-scale needs assessment, program marketing, and the management of learning environments.

Broad-Scale Needs Assessment

Needs assessments vary in purpose and specificity. One can focus on the broad needs and interests of the clientele for an entire agency or general programming area or on specific learning needs related to particular courses or other learning activities. There are also many ways to secure
information on learning needs as the basis for program planning, including expert opinion, task analysis, testing, review of census and labor market data, and client surveys. The motivational orientation research appears to be most relevant to broad-scale needs assessment and to procedures for obtaining information on needs directly from potential participants.

At the agency level -- that is for the University Extension Division's clientele as a whole -- the motivational orientation findings described here can probably be taken as valid indicators of general needs and interests. The fact that many studies of the general clientele for university extension and related programs have yielded similar findings provides strong support for this contention. The same reasoning would probably also apply to the University Extension Division's Department of Continuing General Education, which offers programs aimed at the general public. The main implications of the motivational research for the University Extension Division as a whole seem to relate primarily to marketing and the design and conduct of learning activities. I will turn to these topics very shortly.

For more specialized programming activities, the general motivational findings are suggestive but not concrete enough to provide much help for program planning purposes. Lawyers, nurses, engineers, social workers and other clientele groups for continuing professional education probably differ from the general adult public in regard to the importance of different motivational factors. While needs assessment for such specialized groups should emphasize the identification of learning needs, it is important for program planners to be sensitive also to the nature of underlying motivations for participation. Because client surveys are a major source of information for broad-scale needs assessment, I will briefly describe two practical
strategies for securing information on motivational orientations from specialized target groups.

One very simple strategy for obtaining data on the nature of motivational orientations is to adapt selected items from the EPS instrument for use in a general needs assessment questionnaire. This can be accomplished by selecting two or three EPS items from each of the six factors or for particular factors judged most relevant to the nature of the target group or program. The EPS items can easily be re-worked into various question formats or retained in scale form to provide an indication of the importance for a particular target group of specific motivations for participation.

A second, but perhaps less practical strategy, is to administer the entire EPS instrument to a population or random sample of participants or potential participants. The EPS can be completed easily and quickly by virtually anyone. To obtain a measure of the relative importance of each of the six motivational factors, the program developer could simply compare the magnitude of the mean factor scores. To illustrate, the Social Welfare factor contains six items on a four point scale (the original EPS had nine points) from "No influence" to "Much influence." Using a computer or hand calculator, we can sum the individual scores for all six items, divide that value by six (that is, by the number of items in the factor), and finally divide the gross factor value by the number of individuals in the sample to obtain a mean importance score. The procedure can then be repeated for the other five factors and the means compared to assess the relative importance of each motivational factor for a particular target population of learners.

In addition to comparing mean factor scores, one could also compute the mean scores for each EPS item. Individual items with unusually high mean values would signal important needs or interests of a more concrete nature than the general factors.
Since adult education has a service to offer and lacks a captive clientele, it seems appropriate to borrow the term marketing from the business world to refer to the process of effectively reaching the clientele we wish to serve. Marketing experts (4) refer to the four P's of product, price, promotion and place. Needs assessment, of course, is fundamental to effective marketing and in theory at least determines the product or educational service that is offered to potential adult learners. A needs assessment may also have implications for price, promotion and place. The question of needs assessment aside, the findings of the motivational orientation research appear to have some broad implications for the promotion side of marketing.

In promoting our courses and programs, we attempt to communicate the nature of our services and also to appeal to the underlying needs or motivations of our clientele. Undoubtedly most of us can be much more sensitive and creative in appealing to client motivations than we have been. The motivational orientation research is helpful here because it indicates that motives for participation are complex and varied and because it has identified six specific motivational factors that impel adults to continue their education.

There are many ways we can make use of the motivational orientation findings in promoting programs. Obviously, much depends on the nature of the particular program and its potential clientele and on the communication medium used for promotion purposes. Nonetheless, there seem to be some general principles worth taking into consideration.

1. Great emphasis should be given to the one motivational orientation factor that most closely corresponds to the nature and purpose of the educational activity. For occupationally oriented programs, this might be
Professional Advancement; for social or civic action programs, Social Welfare motivations might be stressed. Personal development and leisure time programs might emphasize Escape/Stimulation. This may sound like obvious advice, but it is not always followed in practice. The EPS items can be used as a source of specific content for promotional communications.

(2) An appeal should be made to as many motivational orientations as possible. For example, health professionals may be motivated to continue their education for Cognitive Interest and Social Welfare reasons as well as for Professional Advancement. Promotional materials that appeal to a variety of legitimate motives are much more likely to be effective than those with a narrow message.

(3) For the adult population at large, the most important motivational orientations are Cognitive Interest and Professional Advancement. This suggests that the central theme for mass promotional activities aimed at the general public should be the intrinsic rewards of learning and the extrinsic rewards in the work world of increased competence and higher occupational status. Of course, the latter applies only to those adult education agencies like the University Extension Division at Rutgers with a major commitment to occupationally-oriented programming. For general interest community programs the key themes might be Cognitive Interest and Escape/Stimulation.

(4) It is clear that many adults, even those who participate in highly technical or work-related programs, are motivated at least in part by Social Relationships and Escape/Stimulation reasons. Promotional materials should recognize these needs by conveying the message -- perhaps pictorially rather than in words -- that adult education is not merely schooling for aging pupils, but an enjoyable activity that offers opportunities for stimulating interaction with other adults.
Implications for the Management of Learning Environments

In regard to the design and conduct of learning activities, the motivational orientation research serves to underscore the importance of well-established principles of adult education programming. It is generally agreed that program planning should take account of the whole person and the diversity of needs and interests that he or she brings to the learning situation. The motivational research has identified or at least confirmed two basic needs that are not always addressed in planning and conducting educational programs. One is the need for meaningful social contact and the other the need for intellectual stimulation.

There are many ways to enhance the social climate of learning activities, including the use of participatory learning methods and the creation of a physical and psychological environment that is relaxed and conducive to open communication and interaction. The experienced director of a large and flourishing community adult education program recently asserted -- only half kiddingly -- that the most important factor in program success is the coffee pot.

There are also of course many tested techniques for making adult learning interesting and stimulating, including the use of a variety of learning formats and media and emphasis on learner-centered and participatory methods. Excessive reliance on formal lectures is widespread in adult education and may well be the major reason why so many adults drop out of programs, never to return again.

Finally, it is pertinent to note that many adults are not truly volunteers for learning but participate largely because of external expectations on the part of employers or other organizations or agencies. This is increasingly true in the helping professions because of mandatory
continuing education requirements. While not all professionals subjected to mandatory education requirements are reluctant learners, those who are will present an increasingly serious challenge to program planners who do not make a simple equation between participation and learning.

Conclusion

While the motivational orientation research does not provide us with any easy prescriptions for programming success, it does suggest some broad directions for more effective program development, particularly in relation to needs assessment, the promotional aspect of marketing, and the design and management of learning activities. If nothing else, the research should sensitize us to the variety and complexity of the motives that underlie participation in continuing education. As in most fields of professional practice, we probably know more than we think we do and we certainly know more than we put to use.
MOTIVATIONAL ORIENTATION FACTORS

Factor 1 -- Social Relationships

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<tr>
<th>EPS Item No.</th>
<th>Description</th>
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<tbody>
<tr>
<td>14</td>
<td>To fulfill and need for personal associations and friendships</td>
<td>.71</td>
</tr>
<tr>
<td>15</td>
<td>To make new friends</td>
<td>.69</td>
</tr>
<tr>
<td>31</td>
<td>To improve my social relationships</td>
<td>.64</td>
</tr>
<tr>
<td>17</td>
<td>To participate in group activity</td>
<td>.62</td>
</tr>
<tr>
<td>9</td>
<td>To be accepted by others</td>
<td>.60</td>
</tr>
<tr>
<td>26</td>
<td>To become acquainted with congenial people</td>
<td>.51</td>
</tr>
<tr>
<td>33</td>
<td>To maintain or improve my social position</td>
<td>.50</td>
</tr>
<tr>
<td>19</td>
<td>To gain insight into my personal problems</td>
<td>.44</td>
</tr>
<tr>
<td>2</td>
<td>To share a common interest with my spouse or a friend</td>
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Factor 2 -- External Expectations

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<tr>
<td>40</td>
<td>To comply with instructions from someone else</td>
<td>.81</td>
</tr>
<tr>
<td>6</td>
<td>To carry out the recommendation of some authority</td>
<td>.78</td>
</tr>
<tr>
<td>36</td>
<td>To comply with the suggestions of someone else</td>
<td>.67</td>
</tr>
<tr>
<td>32</td>
<td>To meet with some formal requirements</td>
<td>.54</td>
</tr>
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</table>

Factor 3 -- Social Welfare

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<tr>
<td>29</td>
<td>To improve my ability to serve mankind</td>
<td>.73</td>
</tr>
<tr>
<td>22</td>
<td>To prepare for service to the community</td>
<td>.70</td>
</tr>
<tr>
<td>39</td>
<td>To improve my ability to participate in community work</td>
<td>.66</td>
</tr>
<tr>
<td>23</td>
<td>To gain insight into human relations</td>
<td>.65</td>
</tr>
<tr>
<td>4</td>
<td>To become a more effective citizen</td>
<td>.57</td>
</tr>
<tr>
<td>11</td>
<td>To supplement a narrow previous education</td>
<td>.41</td>
</tr>
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</table>

*Adapted from B. Borstain & J. Smart, "Reasons for Participation in Adult Education Courses: A Multivariate Analysis of Group Differences." Adult Education, 24 (Winter, 1974). The EPS item numbers have been changed to correspond with the numbering on the 40-item revised version of Boshier's Educational Participation Scale. Six items no longer included in the EPS but which loaded on the above factors have been deleted here.
### Factor 4 -- Professional Advancement

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<tr>
<td>10</td>
<td>To give me higher status in my job</td>
<td>.66</td>
</tr>
<tr>
<td>3</td>
<td>To secure professional advancement</td>
<td>.66</td>
</tr>
<tr>
<td>15</td>
<td>To keep up with competition</td>
<td>.55</td>
</tr>
<tr>
<td>18</td>
<td>To increase my competence in my job</td>
<td>.52</td>
</tr>
<tr>
<td>20</td>
<td>To help me earn a degree, diploma or certificate</td>
<td>.51</td>
</tr>
<tr>
<td>30</td>
<td>To keep up with others</td>
<td>.43</td>
</tr>
<tr>
<td>13</td>
<td>To acquire knowledge that will help with other courses</td>
<td>.41</td>
</tr>
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### Factor 5 -- Escape/Stimulation

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<td>5</td>
<td>To get relief from boredom</td>
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</tr>
<tr>
<td>28</td>
<td>To get a break in the routine of home or work</td>
<td>.69</td>
</tr>
<tr>
<td>27</td>
<td>To provide a contrast to the rest of my life</td>
<td>.61</td>
</tr>
<tr>
<td>8</td>
<td>To overcome the frustration of day-to-day living</td>
<td>.58</td>
</tr>
<tr>
<td>12</td>
<td>To stop myself from becoming a vegetable</td>
<td>.53</td>
</tr>
<tr>
<td>16</td>
<td>To escape the intellectual narrowness of my occupation</td>
<td>.46</td>
</tr>
<tr>
<td>34</td>
<td>To escape an unhappy relationship</td>
<td>.44</td>
</tr>
<tr>
<td>21</td>
<td>To escape television</td>
<td>.41</td>
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### Factor 6 -- Cognitive Interest

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</thead>
<tbody>
<tr>
<td>37</td>
<td>To learn just for the sake of learning</td>
<td>.66</td>
</tr>
<tr>
<td>3</td>
<td>To seek knowledge for its own sake</td>
<td>.62</td>
</tr>
<tr>
<td>7</td>
<td>To satisfy an inquiring mind</td>
<td>.57</td>
</tr>
</tbody>
</table>

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8-16
REFERENCES


Introduction to Annotating and Indexing

for Current Index to Journals in Education (CIJE)

Although we recognize that some Clearinghouses have abstractors doing CIJE who do not also do RIE, in this section on CIJE it is assumed that the abstractor has learned and applied the guidelines in the RIE section of the Workbook. Unless otherwise noted, the guidelines that appear in the RIE abstracting/indexing section also apply to CIJE annotating and indexing. The accepted rules for writing good abstracts for RIE should be followed, keeping in mind the exceptions noted here and in the ERIC Processing Manual.

Annotating

The ERIC Processing Manual (Section 6) discusses annotating for CIJE and should be read. In summary, CIJE annotations differ from RIE abstracts in the following ways:

An annotation

1. is briefer, a CIJE annotation containing 50 words or less;

2. explains or expands upon information which is not included in the title, descriptors, or identifiers;

3. is not required if the title and descriptors adequately describe the contents of the article (however, an annotation is definitely preferred--check with your supervisor about your Clearinghouse requirements);

4. is often an indicative annotation (because of the word limitations);
5. does not have to be weighted in the same proportions as an abstract for a document;

6. can contain telegraphic sentences (rather than complete sentences).

**Indexing**

The guidelines and rules on indexing described in other sections of the *Workbook* apply equally to the indexing of journal articles.

**Reading the Journal Article**

The abstractor with a practiced eye will not need to read the entire article. Section headings, topic sentences of the headings, and the summary can be scanned to provide adequate information for writing an annotation. The text can be skimmed quickly to make certain that no ideas are passed over.

Many CIJE articles contain author abstracts of up to 200 words. Because it is cost effective and more efficient, the abstractor should use and adapt the author annotation whenever it is possible. The abstractor needs to scan the article to make certain that the author annotation contains the same content that he would include. Well-written author annotations also give very useful clues for choosing descriptors.

You may now remove Article No. 1 on using modules in teacher education and annotate and index it. Then return to the *Workbook* to read the article analysis.
CIJE Article No. 1: "Use of Modules in Teacher Education"

1. Characteristics of the Type of Article

The article is a description that is formally structured, containing section headings and a summary. Because it is structured and also because it contains much information, it lends itself to the indicative mode, which describes the content, format, and use of an article.

2. Annotation Style/Content

The article illustrates how difficult it can be to write a 50-word annotation on a document with many concepts and topics. It is impossible to summarize all the specific ideas presented.

3. Sample Annotations

Sample annotations #1, #2, and #3 reflect common Clearinghouse practice in annotating articles for CIJE. Articles are often not summarized; instead, the abstractor sometimes emphasizes the author's conclusions or mentions points of special interest in the article. Sample annotation #4
is an attempt to summarize the entire article. All four annotations are indicative, describing the article's content.

All four are acceptable, but each annotation emphasizes a different viewpoint. Sample annotations #1 and #2 paraphrase the summary on the article's last page.

Sample #1 provides a topic sentence which describes the general content of the article. It emphasizes the mutual benefit of using self-instructional modules to both preservice and classroom teachers, but does not mention the competencies in social studies teaching or objectives of the module.

This article describes a modification of the Georgia Educational Model for the Preparation of Elementary Teachers. The self-instructional modules employed in this model benefit preservice teachers who learn and practice specific performance competencies in public school classrooms. They also benefit working teachers as they monitor the teacher trainees.

Sample annotation #2 identifies the location of the methods course, but does not list the elements of the learning module-concept development, value analysis, and skill development.

This article describes a model social studies methods course for preservice elementary school teachers at the University of Georgia. The article focuses on the development and use of learning modules as an instructional tool in performance-based teacher education. Specific examples of module construction and use are presented.

Sample #3 identifies groups of competencies in three major areas: concept development, value analysis, and skill development. It does not, however, mention social studies instruction.
Describing a teacher education model designed to actively involve preservice teachers in teaching-learning processes, this article illustrates use of the "self-instructional module" (aimed at concept development, value analysis, and skill development) to train preservice teachers in specific performance competencies applied in elementary schools where benefits accrue to established and preservice teachers.

Sample #4 attempts to cover the breadth of the ideas presented in the article.

This article describes a model social studies methods course at the University of Georgia for preservice elementary school teachers. The article focuses on the development and use of self-instructional learning modules (aimed at concept development, value analysis, and skill development) as an instructional tool in performance-based teacher education.

4. Indexable Concepts and Possible Descriptors

Indexing for this article is difficult because of overlapping descriptors. In this case it may be helpful for you to refer to sample annotation #4 which summarizes the article, noting and underlining all the important concepts expressed. This summarized annotation definitely reflects the major and minor ideas presented in the article. Remember, however, that the rule in general practice is not to index from an annotation but from the article itself.

Sample Annotation #4

This article describes a model social studies methods course at the University of Georgia for preservice elementary school teachers. The article focuses on the development and use of self-instructional learning modules (aimed at concept development, value analysis, and skill development) as an instructional tool in performance-based teacher education.
There are 11 underlined concepts. These concepts now need to be translated into ERIC descriptors as you have done before when indexing for RIE documents. Also, as you have previously done, you need to weight the concepts in relation to their importance in the article.

The following descriptors are representative of the concepts in the article.

Curriculum:
*SOCIAL STUDIES was made a major descriptor since it is the major subject area of the methods course.

Teachers:
*COMPETENCY BASED TEACHER EDUCATION was selected as a major descriptor. TEACHER EDUCATION would be too broad, but TEACHER EDUCATION PROGRAMS may be used as a minor to round out the indexing. Although benefits of the model accrue to both preservice and inservice teachers, PRESERVICE TEACHER EDUCATION should be a minor descriptor because the model's basic purpose is to prepare "prospective" elementary teachers.

Methods:
*AUTOINSTRUCTIONAL AIDS and *LEARNING MODULES were used as major descriptors because the article describes self-instructional learning modules. "Self Instructional Aids" is a Used For term for the descriptor AUTOINSTRUCTIONAL AIDS.
METHODS COURSES was made a major descriptor because the article describes a specific methods course. This concept is further represented by the minor descriptor TEACHING METHODS.

CONCEPT FORMATION is used as a minor descriptor. Teacher competencies were grouped into three major areas: concept development, value analysis, and skill development. This idea is reflected in the sample annotations #3 and #4. CONCEPT FORMATION is indexed as a minor descriptor because this module is presented in the article in detail, while the two other areas (skill development and values) are more briefly described.

Mandatory Leveling Terms:

ELEMENTARY EDUCATION was made a minor descriptor because it is the level for which teachers are being prepared. It was not covered by any other descriptor.

HIGHER EDUCATION was used as a minor descriptor because preservice teacher education is expressed by this leveling term.

We finish, then, with the following:

<table>
<thead>
<tr>
<th><strong>MAJOR</strong></th>
<th><strong>MINOR</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>*COMPETENCY BASED TEACHER EDUCATION</td>
<td>CONCEPT FORMATION</td>
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<tr>
<td>*AUTOINSTRUCTIONAL AIDS</td>
<td>ELEMENTARY EDUCATION</td>
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<td>*LEARNING MODULES</td>
<td>HIGHER EDUCATION</td>
</tr>
<tr>
<td>*SOCIAL STUDIES</td>
<td>PRESERVICE TEACHER EDUCATION</td>
</tr>
<tr>
<td>*METHODS COURSES</td>
<td>TEACHING METHODS</td>
</tr>
<tr>
<td></td>
<td>TEACHER EDUCATION PROGRAMS</td>
</tr>
</tbody>
</table>
Pub Type Codes:

This article describes a teacher education program, and code 141 is the appropriate Pub Type. Code 080, for journal articles, is not assigned as the ERIC processing program automatically assigns 080 to all CIJE records.
<table>
<thead>
<tr>
<th>CONCEPTS</th>
<th>MAJOR</th>
<th>MINOR</th>
<th>JUSTIFICATION</th>
<th>TOO BROAD/OFF-TARGET</th>
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</thead>
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<tr>
<td>CURRICULUM</td>
<td>*SOCIAL STUDIES</td>
<td></td>
<td>MAJOR SUBJECT AREA OF METHODS COURSE</td>
<td></td>
</tr>
<tr>
<td>TEACHER EDUCATION</td>
<td></td>
<td>TEACHER EDUCATION PROGRAMS</td>
<td>THE ARTICLE DESCRIBES A MODEL TEACHER ED PROGRAM</td>
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<tr>
<td></td>
<td></td>
<td>PRESERVICE TEACHER EDUCATION</td>
<td>BASIC PURPOSE IS TO PREPARE PRESERVICE TEACHERS</td>
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<td></td>
<td></td>
<td>*COMPETENCY BASED TEACHER EDUCATION</td>
<td>MOST SPECIFIC DESCRIPTOR</td>
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<td></td>
<td>COMPEPTENCY BASED EDUCATION</td>
<td></td>
</tr>
<tr>
<td>METHODS</td>
<td>*LEARNING MODULES</td>
<td></td>
<td>THE ARTICLE DESCRIBES A METHODS COURSE INVOLVING SELF-INSTRUCTIONAL MODULES-- THIS IS MORE SPECIFIC THAN &quot;INDIVIDUALIZED INSTRUCTION&quot;</td>
<td>INDIVIDUALIZED INSTRUCTION</td>
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<td></td>
<td>*AUTOINSTRUCTIONAL AIDS</td>
<td></td>
<td>CONCEPT FORMATION</td>
<td></td>
</tr>
<tr>
<td></td>
<td>*METHODS COURSES</td>
<td></td>
<td>&quot;CONCEPT DEVELOPMENT&quot; MODULE PRESENTED IN DETAIL</td>
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<tr>
<td></td>
<td></td>
<td>TEACHING METHODS</td>
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<td></td>
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<tr>
<td>MANDATORY LEVELERS</td>
<td></td>
<td>ELEMENTARY EDUCATION</td>
<td>TEACHERS ARE BEING PREPARED TO TEACH AT ELEMENTARY LEVEL</td>
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<td></td>
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<td>HIGHER EDUCATION</td>
<td>&quot;PRESERVICE TEACHER EDUCATION&quot; IS EXPRESS-ED BY THIS LEVELER</td>
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The Use of Modules in Teacher Education

Michael L. Hawkins

The social studies methods sequence at the University of Georgia is based on two assumptions: there is a certain body of knowledge about method which a prospective elementary teacher should acquire, and the degree of this acquisition can be observed as the prospective teacher works with pupils. These assumptions are an outgrowth of the Georgia Education Model for the Preparation of Elementary Teachers and the Feasibility Study which tested the cost effectiveness of a model teacher education program. The prime instructional tool used throughout the program is the proficiency module, as described in this article.

Background for Module Development

The key terms modular instruction and instructional models have distinct meanings. As defined in the Georgia Education Model, modular instruction is a system incorporating objectives, pre-assessment, learning activities, and post-assessment. Instructional modules are self-instructional devices which enable preservice teachers to move through the instructional system at their own rate. They are self-contained, inexpensive, and focus on methodological content which the designers of the Georgia Education Model regarded as basic to effective elementary teaching.

Preliminary data gleaned from studies conducted at the University of Georgia indicated that the original social studies and science modules did not function in a totally satisfactory manner when used at the preservice level. These modules included matched listings of objectives and texts, films, tapes, and other commercially produced materials from which the reader chose to read, listen to, or watch as information input. Revised modules include structured sequences of information and activities which facil-
ivate the acquisition of information at each step in the module.

Findings of other studies on module instruction, though limited, are encouraging. For example, Merwin and Schneider found that self-instructional modules resulted in significantly higher achievement test scores and student teacher performance ratings by secondary school social studies preservice teachers than traditional instruction. Further, these writers state that they anticipate a generally favorable student reaction to future utilization of self-instructional modules. The positive findings of an extensive review of the literature by Merwin, coupled with the author's broad personal experience with modular instruction, support the contention that modules are a viable mode for instructing prospective teachers.

Module Construction

An integral part of a performance-based program is the identification and description of the tasks needed by a teacher in the classroom. In order to specify tasks, objectives need to be determined. In the Georgia program, objectives were drawn from the original Model program, from public school teachers' opinion, and from professors' judgments. Selected objectives then directed the specification of competencies. These competencies were grouped into the three major areas of concept development, value analysis, and skill development. Next, they were published and distributed to preservice teachers enrolled in social studies methods courses, and to their public school teacher-supervisors. The competency statements follow:

Compentency Statements:
Social Studies

1. Concept Development. While using a self-written learning plan designed according to an accepted strategy for teaching a concept, the preservice teacher will teach an appropriate social science concept to a small group or entire class of elementary school pupils at a grade level of choice. Performance will be judged according to the following criteria.
   a. The teaching strategy follows a model strategy or is an acceptable modification of it.
   b. The concept is appropriate for the given age level.
   c. The examples include necessary attributes and exclude extraneous detail.
   d. Appropriate verbal behavior is used during the various steps of the teaching strategy.

2. Value Analysis. While using a self-written learning plan designed according to an accepted value analysis strategy, the preservice teacher will conduct a value analysis lesson with a small group or entire class of elementary school pupils at a grade level of choice.

3. Skill Development. While using a self-written learning plan designed according to an accepted skill development strategy for teaching a skill, the preservice teacher will conduct a skills lesson with a small group or entire class of elementary school pupils at a grade level of choice. The titles of the modules are:
   - Organizing Knowledge for Instruction
   - Harmonizing Questions and Activities Used by Teachers with the Level of Cognitive Behavior Expected of Pupils
   - Concept Formation—Concept Teaching
   - Interpreting Data
   - Values and the Valuing Process
   - Simulation Games and Role Playing
   - Intercultural Understanding—The Problem and a Process
   - Skill Development—Maps and Globes

The eight modules were designed and written by a team of elemen
tary school social studies specialists at the University of Georgia, and first tested in the Spring of 1972. The production of each module followed this sequence:

1. Based on the performance needs of the elementary teacher, a social studies content topic was selected by the writing team.
2. The module included a rationale and an overview of the tasks to be accomplished.
3. Both terminal and enabling objectives specified the performance necessary to complete the module.
4. Supportive information was provided for each enabling objective. Examples of the enabling task were shown, and finally an enabling activity was presented that was to be completed by the reader.
5. A terminal activity was selected. Usually the terminal activity required the reader to write an appropriate lesson plan for pupils in the classroom.

Description of a Module

The Concept Formation module is presented here in detail to illustrate the instructional sequence of the module.

**Concept Formation—Concept Teaching**

**INTRODUCTION**

This section presents a rationale for the content of the module, and an overview of the tasks to be performed. **Terminal objective:** "While using a unit of instruction in an elementary school social studies textbook at a grade level of choice, the reader will be able to identify two or more key concepts in the unit, and write a lesson plan describing the methods and materials to be used in teaching one of these concepts." **Enabling objectives:** "Given a list of concepts, the reader will be able to write four attributes based on his understanding of each concept." "Given a specific social studies concept, the reader will demonstrate his understanding of the Gagne model for teaching a concept by writing examples and non-examples for the given concept, and by placing these along with teacher statements in correct order."

**PART 1—Concepts and Their Attributes**

This section defines concepts and their attributes. It includes such examples as "RIVER: water, flowing, channelized, carries sediments." An enabling activity follows which presents abstract and concrete concepts: "lake," "man," "change," "transportation," etc. The reader then identifies attributes of these concepts.

**PART 2—Concept Formation**

This section describes how conceptualization takes place in a child. Stress is placed upon experience in the process of conceptualizing. Concrete concepts are used as examples.

**PART 3—Why Teach Concepts**

The function of concepts as part of a person's mental data-processing system is discussed with an emphasis on concepts as organizers of information. A rationale for a conceptually-based social studies curriculum is presented as a process resembling the mental activity of people. Abstract concepts are used as illustrations.

**PART 4—Teaching Concepts**

This section introduces Gagne's model for teaching a concept. The reader is shown an example using a fictitious concept to illustrate the regression of examples and non-examples specified by the model. Teacher statements illustrate what is said to pupils as the teacher moves through the presentation. The fictitious concept consists of geometric figures: rectangle, square, and circle. The figures and specific placement of the figures are the key attributes. Then, using a real concept, "water transportation," the reader completes a lesson plan by writing or drawing examples of water transportation (barge, tanker, etc.), listing non-examples (automobile, airplane, etc.), and writing probable teacher statements ("This is an example of . . . "), to teach the concept.

**PART 5—Writing Lesson Plans for Teaching a Concept**

A form for a lesson plan is introduced that serves throughout the remainder of the series. The example of the concept "rules" is presented.

Upon completion of the enabling activities, the reader is given a restatement of the terminal objective and a blank lesson plan form. The reader is directed to use his accumulated knowledge of concept formation in selecting four concepts from a child's textbook, and in writing a lesson plan employing the Gagne Model to teach one of the concepts.

**The Instructional Sequence**

Regardless of the sophistication of the textbook, module, or other device used to transmit information to the student, the philosophy of the program supports a close relationship between the methods' professor and preservice teachers and between the preservice teacher and his or her peers. During the academic quarter, preservice teachers spend approximately ten two-hour sessions on campus in the social studies methods class. Simultaneously they receive on-campus instruction in general methodology and special methods in language arts, science, and reading.

At the beginning of the concept segment of the social studies sequence, preservice teachers receive copies of the competency statement and performance criteria. Then they are required to complete the concept formation module outside of class. The professor and the class of prospective teachers work through the content of the module. Next, the professor gives several demonstrations of the model; afterward, the preservice teachers practice the strategy in pairs or in small groups. Two other concept teaching models are covered in the same fashion, except that these are not part of the module series. At this point, the preservice teachers are able to complete the module outside of class.

---

Upon completion of this instructional sequence, the neophyte has three concept development models to choose from to complete the teaching requirement of the competency.

With the help of the classroom teacher, the preservice teacher selects a concept that fits into the program of the classroom. While following the instructions of the module, he or she writes a lesson plan which is formally evaluated by the college instructor. A typical lesson plan follows (see right).

Preservice Teacher Activity In the Public School
Since the on-campus phase of the instructional program in the methods course is conducted in the afternoons, preservice teachers spend entire mornings, Monday through Thursday, or a total of twelve hours per week, in a nearby elementary school.

Upon completion of the on-campus instructional module in concept development, the methods professor makes an appointment with the preservice teacher to observe the use of the approved lesson plan with either a small group or an entire class of children. During the observation the professor completes a rating form which includes the following items:

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Statements or Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Follows proper sequencing of the strategy steps.</td>
<td>This is a picture of one kind of shelter.</td>
</tr>
<tr>
<td>Good pacing from step to step.</td>
<td>This is an example of shelter.</td>
</tr>
<tr>
<td>Materials used</td>
<td>This is a shelter</td>
</tr>
<tr>
<td>Neat and precise</td>
<td>Define shelter as a place for protection.</td>
</tr>
<tr>
<td>Large enough for all to see.</td>
<td></td>
</tr>
<tr>
<td>Correct in content.</td>
<td></td>
</tr>
<tr>
<td>Interval verbal behavior</td>
<td></td>
</tr>
<tr>
<td>Questions or statements used were appropriate for the strategy steps.</td>
<td></td>
</tr>
<tr>
<td>Reinforcing and non-threatening</td>
<td></td>
</tr>
</tbody>
</table>

Pupil involvement
Degree to which pupils participated verbally or actively in the lesson

Appropriateness of concept
Degree to which the content taught is appropriate to the age level of the pupils

Following the lesson, with added suggestions by the classroom teacher, the professor assists the neophyte.
A preservice teacher helps fourth-grade children to develop location skills.

Land use concepts are explored by a preservice teacher and pupils.

Advantages and Disadvantages

The module program has advantages and disadvantages for preservice teachers and methods professors. For preservice teachers, one prime advantage is the absence of guesswork about course requirements: they know what they must do and the level which they must achieve. Further, they develop confidence in their ability to instruct children. Also, their training in a performance-based teacher education program makes them more employable than graduates of traditional programs.

The chief disadvantage for the preservice teacher is the numerous hours spent in preparing for on-campus classes as well as for their work in the elementary school. A typical day begins with children early in the morning and ends with on-campus classes in the late afternoon. This intensive experience could also be an advantage because it accurately represents a typical day for a teacher.

Within this modular program, the classic instructor-dominated college classroom is supplanted by student-centered activity based on skills needed in elementary social studies instruction. The college instructor benefits by having intensive contact with preservice teachers, children, teachers, and administrators; exposure to the public schools gets college instructors out of the ivory tower and keeps them abreast of current developments in the schools.

Summary

This article describes a modification of the Georgia Education Model for the Preparation of Elementary Teachers. The prime instructional tool in this model is the self-instructional module. The modules benefit preservice teachers, who learn specific performance competencies and practice them with children in a nearby elementary school. Benefits accrue to public elementary classroom teachers as they monitor preservice teachers' instruction in foundational skills in the social studies, also, the preservice teachers provide valuable assistance in the classroom. These mutual benefits seem to underscore a propitious arrangement that is consistent with the function of a teacher-training institution.
CIJE Article No. 2: "Status of the Social Studies..."

1. Characteristics of the Type of Article

This very long article summarizes results from a variety of surveys. Fortunately, subheadings are used to identify the survey categories. Since these give an indication of the content, the abstractor can merely skim them. The introduction and conclusion should be read in entirety.

2. Annotation Style/Content

Because of its length and the variety of information discussed, the article should be annotated in an indicative mode. Bold-face headings and titles of tables provide an easy guide for summarizing the content of the article. Because of the 50-word limitation, an abstractor would be unable to adequately summarize the survey findings in an informative mode. A strictly indicative annotation should identify content categories and not try to emphasize specific information about any one category.

3. Sample Annotations
Sample Annotation #1

Data collected from 36 state departments of education are reported that show major changes and tendencies affecting the social studies from 1970 to 1975. Included are discussions of data limitations, state and district variations, changing enrollments, elementary programs, requirements, teaching methods, and impact.

Annotation #1 is a strictly indicative annotation. Note that the first sentence explains that the article synthesizes data from a variety of sources, the time period covered, and (as indicated in the title) that the subject area is social studies education. The second sentence shows how the abstractor used subheadings in the article to list the various areas that are discussed.

Sample Annotation #2

This article reports wide variations in funding, curriculum, and personnel, and declining enrollment in most social studies subjects. It examines the major educational changes from 1970 to 1975 that have impacted on social studies, and it argues the need for a basic social studies framework.

Annotation #2 is basically indicative, although it includes a few insights into survey results and the author's conclusions. True to the indicative mode, the annotation mentions major areas covered by the surveys: funding, curriculum, personnel, and enrollments. An element of the informative style is evident in the phrase "declining enrollment." "Argues the need for a basic social studies framework" is also generally informative.

Abstractors may believe that the article's title is sufficiently descriptive to forego an annotation. Although the Processing Manual...
mentions that in some cases the title and indexing terms can adequately convey the content of an article, most abstractors would probably strongly feel that the variety of subject areas covered in this article would merit writing an indicative annotation.

4. **Indexable Concepts and Possible Descriptors**

Concepts in the article break down into the three broad categories of (1) curriculum area, (2) methods of obtaining and evaluating data, and (3) trends (findings). Because the article discusses social studies trends in American public schools, a leveling descriptor will be appropriate.

At least one major descriptor representing each concept group should be used. Below is a sample of indexing for the article.

<table>
<thead>
<tr>
<th>Major</th>
<th>Minor</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>SOCIAL STUDIES</em></td>
<td>TREND ANALYSIS</td>
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<tr>
<td><em>NATIONAL SURVEYS</em></td>
<td>CURRICULUM EVALUATION</td>
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<td><em>EDUCATIONAL TRENDS</em></td>
<td>STATE OF THE ART REVIEWS</td>
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<td>ENROLLMENT TRENDS</td>
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<td></td>
<td>GRADUATION REQUIREMENTS</td>
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<td></td>
<td>TEACHING METHODS</td>
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<td></td>
<td>ELEMENTARY SECONDARY EDUCATION</td>
</tr>
<tr>
<td></td>
<td>TABLES (DATA)</td>
</tr>
</tbody>
</table>

Curriculum Concepts:

*SOCIAL STUDIES* is the topic of the article, so it should definitely be a major descriptor. There is little likelihood that this article will prompt an indexer to think of *SOCIAL SCIENCES*, but if it does, the term is too broad. If the author had related social studies education to social science education in general, then it might be used as a minor. However,
in this case it is inappropriate. For this article, specific subject areas such as HISTORY or UNITED STATES HISTORY are too narrow. The term CURRICULUM EVALUATION is used as a minor here because one of the many areas surveyed in this article dealt with curriculum. Because the article provides a critical look at the social studies curriculum, CURRICULUM EVALUATION is more appropriate and specific than the broad term CURRICULUM RESEARCH.

Methods of Obtaining and Evaluating Data:

- NATIONAL SURVEYS is used as a major because the entire article is based on data collected from surveys throughout the country. SURVEYS would not be adequately specified. Since the author himself analyzes the survey findings, the term TREND ANALYSIS is appropriate. He describes his own research study, but does not elaborate significantly on his methodology. Thus, RESEARCH METHODOLOGY would be inapplicable to this article. Tables of data are included in the article, so TABLES (DATA) can be a minor term. However, the article does not dwell upon statistical analysis, so the terms COMPARATIVE ANALYSIS and/or STATISTICAL ANALYSIS would not be used.

Trends:

- EDUCATIONAL TRENDS best describes the full range of areas the article explores. Because it examines changes over a period of time, the article is best described with this term rather than a more static term such as EDUCATIONAL PRACTICES. Areas in which the trends have occurred (enrollment, graduation requirements, teaching methods) are logical candidates for minor descriptors.
Mandatory Educational Level:
The article reviews the status of social studies education in both elementary and secondary grades, so ELEMENTARY SECONDARY EDUCATION is most appropriate.

Document/Publication Type:
The article describes "where the social studies stand today," and STATE OF THE ART REVIEWS is an appropriate minor descriptor. The corresponding Pub Type code is 070.
<table>
<thead>
<tr>
<th>CONCEPTS</th>
<th>MAJOR</th>
<th>MINOR</th>
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</thead>
<tbody>
<tr>
<td>CURRICULUM CONCEPTS</td>
<td>*SOCIAL STUDIES</td>
<td>CURRICULUM EVALUATION</td>
<td>THE MAJOR (AND ONLY) SUBJECT AREA EXPLORED BY THE ARTICLE</td>
<td>SOCIAL SCIENCES</td>
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<td>NEEDS ASSESSMENT</td>
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<td>CURRICULUM</td>
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<td>METHODS OF OBTAINING AND EVALUATING DATA</td>
<td>*NATIONAL SURVEYS</td>
<td>TABLES (DATA)</td>
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<td>RESEARCH METHODOLOGY</td>
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<td></td>
<td>DISCUSSES CHANGES FROM 1970-75</td>
<td>EDUCATIONAL PRACTICES</td>
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</table>
The Status of the Social Studies in the Public Schools of the United States: Facts and Impressions of a National Survey

Richard E. Gross

What seem to be the current tendencies, and what major changes have occurred in our field in the last five years? How bodes our future? What next steps are indicated? It was, of course, with the limited resources, and personnel available, impossible to mount a fully comprehensive study of the foregoing queries. To help us, however, we also searched for evidence on these points gathered by other researchers at national, state, and local levels: some of their findings have been incorporated into this report.

Limitations of the Survey

This article is properly titled; much of what I have to say can only be taken as impressions, and not as fact. (My somewhat subjective analysis should also be acknowledged here and now.) Our pilot trials with the three-page instrument led us to recognize that often we could not gain uniform and statistically comparable data. Indeed, a fundamental gap exists in that a good deal of the information we desired is either not readily available or has never even been collected. Therefore, certain of our conclusions are at best tentative. Ultimately we received replies from 36 state departments of education, comprising 72% of the states. Fortunately, only three of the more populous states did not respond. I believe, from the standpoints of school enrollment and regional coverage, that we have a fairly representative sampling of conditions in the nation, even though 14 states are not included in this portion of the study.

However, even among the 36 states that did reply, it was sometimes impossible to draw accurate parallels or to compile total figures. Readers may be surprised, but several states collect almost no data on school enrollments: and where they do, data may be organized by clock hours, by units, or by total school instead of by grade level, and sometimes data do not include registration in specific subjects. In terms of grade level enrollment and actual time spent in social studies, let alone the major emphases or topics covered in the elementary grades, the states could provide us with very little information. Many specifics regarding social studies offerings and practices in the elementary school are just not available from the states. Additionally, some states or districts include the 7th and 8th grades in high school statistics and others in the elementary records. On top of that, in certain states figures were not available for 1970, but were available for 1968 or some other year; or possibly the means of accounting for pupil enrollment were changed during the period 1970-1975, thus making the comparative figures we wished to gather very difficult to correlate. Furthermore, in several instances...
the wonderful computers had not yet been able to bring forth 1975 data. Also, during the five-year period of comparison, course titles were changed and, unhappily, computer printouts do not explain such deviations.

Particularly disturbing for our purposes has been the "devilish" tendency in the last few years to permit students in grades 9 through 12 to take almost any course they wish in any one of those years. I am sure the reader understands what this does to any attempt to gather comparative figures. Lastly, we knew there were a few clerical errors in recording certain of the data, even though we followed-up on reports that seemed out of line with what could be expected. Differences in interpretation are also reflected in some instances, of rather mechanical recording. One query, for example, asked for changes in the numbers of supervisory specialists in social studies available to the schools. One state indicated that only a handful of such personnel were available in 1970, but that 529 were available in 1975! A phone call revealed that the 1975 figures included all the department heads in the high schools of the state. This experience has convinced us of the necessity of working toward national agreement and coordination for the recording and gathering of even simple but basic educational data. The different kinds, levels, formats, and bases for recording that exist from state to state provide any researcher trying to do cumulative national research with a first-class nightmare.

Since many of our state reports were incomplete or incomparable in part and since our state respondents were sometimes rather far removed from the classrooms (especially regarding elementary school conditions and practices), we decided to circulate a supplemental questionnaire to local school districts. We drew on the mailing list of the local supervisors, members of the NCSF-affiliated Social Studies Supervisors Association. We received a satisfactory return of almost one hundred replies from persons in 49 states who are cognizant of local school conditions. These replies brought us more information, especially related to the elementary school, and served as a valuable cross check on the data and opinions gathered at the state level. These reports, of course, provided some of the same challenges of comparison and interpretation that our state replies brought. Utter havoc, for example, has been introduced in some listings and accounts by the free substitutions of electives for hereto traditionally required courses, and even more so by the ubiquitous mini-course—which has left a trail of confusion that can never be statistically resolved!

All of the foregoing is intended as words of caution concerning the accuracy of our sampling as well as the necessity of careful interpretation and the implications drawn. Nevertheless, I believe we have some valuable and revealing findings and now let us turn to them.

State and District Variations

Over the past few years, some of us have been deeply concerned about what seemed to us a serious deterioration of the place of the social studies in the school program. Several recent Presidential Addresses at annual meetings of this organization, as well as literature in the field, have recounted these apprehensions. The early returns of our questionnaire, however, reflected conflicting tendencies and trends between states and between different districts. It was apparent that our generalizations would have to be carefully drawn, avoiding sweeping conclusions. We knew, for example, that severe reductions in federal, state, and local funding were often at the roots of difficulties in maintaining viable social studies programs. Certain respondents provided specific examples of cutbacks in monies for supervisory and consultant aid. How generally serious were the cutbacks in supervisory aid between 1970 and 1975? Nine states reported no such personnel available at state or local levels in 1970 or in 1975. Eight other states had no change between 1970 and 1975. Only four states reported a reduction in the number of special consultants, while thirteen states reported an increase in the availability of social studies supervisors at all levels. Thus, what is a serious problem in one state or district is not so in the next. Several other studies we consulted have underscored the difficulty of drawing generalized conclusions. Following intensive interviews with social studies teachers in twenty high schools in ten northern California districts, Lewenstein and Tretten were able to make only one claim—that there is no standard social studies program in California, that the one honest answer is "the curriculum varies." Again, while the Association of American Publishers reports that textbook sales in the United States have shown a substantial increase from a total of $842 million in 1971 to $1,174 million in 1975, in a given state or district severely reduced funding for books, media, and materials may be listed as the major deterrent to a strengthened and ongoing social studies effort. Differences between elementary and secondary situations are also evident. About 78 percent of our respondents held, for example, that school administrators at the secondary level give substantial support to the social studies program; but 75 percent of them reported only average-to-little encouragement for social studies on the part of elementary school administrators. In one state, universities and teachers colleges are seen as important leaders in the forwarding of new approaches in the social studies; in another state, these institutions are characterized as being far behind the new ventures now apparent in elementary and secondary education.

Certainly, in some cases, the question of what is nationally predominant is irrelevant to a desperate district caught in a different tide: but where we seek such total figures and resultant trends, they often can only be attained by cooperative, long-term, depth studies, by frequent personal observations.
or interviews, and by a very substantial sampling of teachers and schools. Through these methods, we can be much more certain as to the actualities of the phenomena that we are trying to identify. The scope of such a complete national study was far beyond our limited means, but such comprehensive research is long overdue in education, and it is called for in many areas besides our own.

Changing Enrollments

This "Gross Report" does, however, include some large-scale revelations. First of all, I will indicate total enrollment figures and national changes in social studies course enrollments over an eleven-year period which we were able to gather from the National Center for Educational Statistics. Total pupil enrollment in the public schools in the United States, grades 7-12, was 11,700,000 in 1962. By 1973, this had risen to approximately 18,500,000, an increase of 58 percent. In such a growth era, how fared social studies enrollment? (See Table I.) It is evident that enrollment in United States Government and in United States History classes both paralleled the percentage of growth in total enrollment. However, World History enrollment and enrollment in World Geography also grew somewhat, but nowhere near paralleled the total increase of pupil enrollment. Indeed, the number of students taking World History grew by only 70,000 in that eleven-year period. Even more dramatic were the actual decreases in 9th grade Civics and 12th grade Problems enrollments. Naturally, some of this loss was siphoned into substitute social studies offerings and electives; but an unknown number of students were lost to other disciplinary areas. In any case, it is clear that the traditional pattern of high school social studies offerings, rather stable since the 1917 Report of the Commission on the Reorganization of Secondary Education established the program, has finally been shattered.

These figures also clearly reveal an invasion of the social studies by the social sciences. The dramatic percentage increases in student enrollment in separate disciplinary courses as Economics, Sociology, and Psychology are striking evidence of this trend. While total enrollment remains small compared to that in American History or Government, Psychology is definitely the fastest growing course in the high school social studies program. (Supplementary information also reveals this subject area to be one of the most popular and growing majors with college and university students.) From an overall standpoint the fundamental conclusion to be drawn from these figures is that social studies enrollment has not maintained itself to parallel the growth of total pupil enrollment in secondary education.

While we do not have fully accurate figures of comparative growth, it is interesting to note the percentage of schools offering various social studies courses and the percentage of enrollment in those courses. (See Table II.) Here we see, for example, that although American History remains the dominant social studies course in the schools, many pupils do not get U.S. History either in grades 7 or 8 or in the senior high school. We discovered that several states have in recent years eliminated their U.S.

### Table I

<table>
<thead>
<tr>
<th>Total Enrollment in Grades 7-12</th>
<th>1961</th>
<th>1973</th>
<th>% Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>11,700,000</td>
<td>18,500,000</td>
<td>59%</td>
<td></td>
</tr>
</tbody>
</table>

### Table II

<table>
<thead>
<tr>
<th>Social Studies Offerings and % of Enrollments (Grades 7-12)</th>
<th>1973</th>
<th>Total Secondary Enrollment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total U.S. Public Secondary Schools</td>
<td>22,737</td>
<td>18,500,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>% of Schools Offering Course</th>
<th>% of Enrollment in Schools Offering Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. History (7-8)</td>
<td>32%</td>
<td>33%</td>
</tr>
<tr>
<td>U.S. History (9-12)</td>
<td>53%</td>
<td>27%</td>
</tr>
<tr>
<td>World History</td>
<td>51%</td>
<td>17%</td>
</tr>
<tr>
<td>Geography</td>
<td>49%</td>
<td>14%</td>
</tr>
<tr>
<td>U.S. Government</td>
<td>45%</td>
<td>16%</td>
</tr>
<tr>
<td>Sociology</td>
<td>36%</td>
<td>9%</td>
</tr>
<tr>
<td>Psychology</td>
<td>30%</td>
<td>9%</td>
</tr>
<tr>
<td>Economics</td>
<td>36%</td>
<td>7%</td>
</tr>
<tr>
<td>Civics</td>
<td>21%</td>
<td>17%</td>
</tr>
<tr>
<td>Sr. Probs.—P.O.D.</td>
<td>20%</td>
<td>11%</td>
</tr>
<tr>
<td>State &amp; Local History (7-8)</td>
<td>16%</td>
<td>39%</td>
</tr>
<tr>
<td>State &amp; Local History (9-12)</td>
<td>12%</td>
<td>15%</td>
</tr>
<tr>
<td>Area Studies</td>
<td>14%</td>
<td>5%</td>
</tr>
<tr>
<td>Ethnic Studies</td>
<td>10%</td>
<td>17%</td>
</tr>
<tr>
<td>Anthropology</td>
<td>6%</td>
<td>5%</td>
</tr>
<tr>
<td>Law Education</td>
<td>14%</td>
<td>7%</td>
</tr>
</tbody>
</table>
History requirements at either or both levels, or have allowed for the substitution of other social studies options. Additionally, significant growth in state and local history enrollments and new requirements for U.S. Government and Economics in a few states have further cut into the dominance of American History. The table reveals other interesting, current status figures. While, for example, geography offered in nearly one half of the high schools of the country, it only gains 14 percent of the enrollment. Newer offerings, such as area studies, ethnic courses, anthropology, and law education, are now being offered in a small minority of high schools; yet along with the more established behavioral science electives, they are capturing an increasing portion of pupil time devoted to socio-civic education. (See, for example, Table III-4.)

Again, situations vary from state to state. A few states have maintained or even improved on their social studies enrollment in the past five years. (See Table III.) If, for example, the nation would go as New Hampshire has, all would be well with the social studies. (See Table III-1.) Florida has also posted significant increases in social studies enrollments. (See Table III-2.) Wisconsin reports enrollments in social studies classes, grades 7-12, rising from 95 percent of all the students enrolled in 1970, to 127 percent in 1975. (Students enrolled in more than one social studies class per term.) Virginia shows a varied pattern and has had some healthy increases at the senior high school level but reveals enrollment losses in the 8th and 9th grades. (See Table III-3.) Pennsylvania is typical with its losses in World History, Geography, and 12th grade problems; but in Pennsylvania, Economics, without the encouragement of state statutes, has also suffered at the hands of some of the more newly popular offerings. (See Table III-4.) The picture in Indiana is most distressing; total pupil high school enrollment increased 15,000 in five years, but the number of pupils taking social studies dropped by 68,000! (See Table III-5.) In terms of total enrollments in social studies, the sad situations in some of the heavily populated states are

### Table III

#### Examples of State Enrollment, 1970 and 1975

<table>
<thead>
<tr>
<th>Grade</th>
<th>Total Pupil Enrollment</th>
<th>Pupil Enrollment in Social Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>NEW HAMPSHIRE</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>13.300</td>
<td>15.000</td>
</tr>
<tr>
<td>8</td>
<td>12.900</td>
<td>15.000</td>
</tr>
<tr>
<td>9</td>
<td>12.500</td>
<td>15.100</td>
</tr>
<tr>
<td>10</td>
<td>11.900</td>
<td>14.000</td>
</tr>
<tr>
<td>11</td>
<td>10.600</td>
<td>13.000</td>
</tr>
<tr>
<td>12</td>
<td>9.800</td>
<td>12.000</td>
</tr>
<tr>
<td>2</td>
<td>FLORIDA</td>
<td></td>
</tr>
<tr>
<td>7-9</td>
<td>362,000</td>
<td>480,000</td>
</tr>
<tr>
<td>10-12</td>
<td>255,000</td>
<td>350,000</td>
</tr>
<tr>
<td>3</td>
<td>VIRGINIA</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>91,000</td>
<td>92,000</td>
</tr>
<tr>
<td>8</td>
<td>93,000</td>
<td>94,000</td>
</tr>
<tr>
<td>9</td>
<td>87,000</td>
<td>93,000</td>
</tr>
<tr>
<td>10</td>
<td>78,000</td>
<td>86,000</td>
</tr>
<tr>
<td>11</td>
<td>70,000</td>
<td>76,000</td>
</tr>
<tr>
<td>12</td>
<td>64,000</td>
<td>69,000</td>
</tr>
<tr>
<td>4</td>
<td>PENNSYLVANIA</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>254,000</td>
<td>294,000</td>
</tr>
<tr>
<td>11</td>
<td>201,000</td>
<td>215,000</td>
</tr>
<tr>
<td>12</td>
<td>182,000</td>
<td>187,000</td>
</tr>
<tr>
<td>5</td>
<td>INDIANA</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>269,000</td>
<td>269,000</td>
</tr>
<tr>
<td>8</td>
<td>257,000</td>
<td>263,000</td>
</tr>
<tr>
<td>9</td>
<td>286,000</td>
<td>300,000</td>
</tr>
<tr>
<td>10</td>
<td>274,000</td>
<td>294,000</td>
</tr>
<tr>
<td>11</td>
<td>240,000</td>
<td>257,000</td>
</tr>
<tr>
<td>12</td>
<td>205,000</td>
<td>225,000</td>
</tr>
<tr>
<td>6</td>
<td>CALIFORNIA</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>1.290,000</td>
<td>1.290,000</td>
</tr>
<tr>
<td>8</td>
<td>1.350,000</td>
<td>1.350,000</td>
</tr>
<tr>
<td>9</td>
<td>1.310,000</td>
<td>1.310,000</td>
</tr>
<tr>
<td>7</td>
<td>1.250,000</td>
<td>1.250,000</td>
</tr>
<tr>
<td>8</td>
<td>1.320,000</td>
<td>1.320,000</td>
</tr>
<tr>
<td>9</td>
<td>1.310,000</td>
<td>1.310,000</td>
</tr>
<tr>
<td>10</td>
<td>1.320,000</td>
<td>1.320,000</td>
</tr>
<tr>
<td>11</td>
<td>1.350,000</td>
<td>1.350,000</td>
</tr>
<tr>
<td>12</td>
<td>1.200,000</td>
<td>1.200,000</td>
</tr>
<tr>
<td>8</td>
<td>TYPICAL LOCAL DISTRICT</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>1,519</td>
<td>1,204</td>
</tr>
<tr>
<td>8</td>
<td>1,500</td>
<td>1,142</td>
</tr>
<tr>
<td>9</td>
<td>1,460</td>
<td>1,276</td>
</tr>
<tr>
<td>10</td>
<td>1,345</td>
<td>968</td>
</tr>
<tr>
<td>11</td>
<td>1,390</td>
<td>1,081</td>
</tr>
<tr>
<td>12</td>
<td>1,260</td>
<td>925</td>
</tr>
</tbody>
</table>

*Students can take more than one social studies course in a given year.*

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even more devastating. In California, grades 9-12, there were 292,000 fewer social studies enrollments in 1975 than in 1970, and this in spite of an increase in total high school enrollment of approximately 60,000 (See Table III-6.) Similar, although not quite so drastic, figures are posted in New York. (See Table III-7.) Texas, with a growing population, had a decline of over 80,000 in social studies enrollment, grades 10-12, in a mere three-year period! Such figures certainly help explain why publishers at this point may be more than wary in bringing out new social studies materials; an unfortunate circle can thus be established where volumes and media which might help restore a declining field do not become available. One last example, taken from one of our local districts, is most typical. Here is a small city system with a somewhat declining population. You will note that the social studies have held their own where no alternative electives in other areas are involved, or where, as in the 11th grade, U.S. History is required. (See Table III-8.)

Social Studies in Elementary Schools

To the foregoing data we should add or subtract the attention being given to social studies in the elementary grades. As indicated previously, here we were unfortunately unable to gather comprehensive data. An accurate, breakdown in subject or time allotments in most elementary school systems just does not exist. Nevertheless, in both our state and district responses we were informed over and over again that elementary teachers are backing away from the social studies. Informal reports of district surveys in both Montana and California, for example, indicated that 70 per cent or more of the K-4 teachers were doing little or nothing with social studies in the current "back to basics" mania. A survey of two Colorado districts was reported as revealing that elementary teachers are averaging but one hour per week devoted to social studies! State fundamentals tests, which usually do not include evaluation of social studies learnings, have been launched in several states and these contribute further to the debacle. It would seem that the problem is especially crucial in the primary grades. Several Florida studies were called to our attention wherein less than one-third of the K-5 teachers reported positive attitudes toward the social studies and less than half regularly taught social studies. And the recently trained teachers were more negative than the older mentors! Over 50 years ago, under the aegis of the Progressive Education Movement, educators put forward a concentrated effort to make social education units the heart of the elementary curriculum. One wonders how far we ever really progressed in this direction—and, if we did progress, how far have we now retrogressed?

Altered in Requirements

Changes in requirements are more of a reflection of local decisions that stem from the actions of state legislatures or state boards of education, although several states have recently eliminated or reduced required social studies courses. States are increasingly permissive in allowing the local mandating of requirements. Jerri Sutton's studies of state requirements in 1970 and 1975 reveal that one state has increased requirements during this period. Four have reduced requirements, and forty report no changes. (See Table IV.) Four other states have retained the same number of requirements but shifted the content; for example, electives may replace a hitherto required senior Problems course. American History is dropped in favor of Civics; or the Free Enterprise System or state history replace for a semester a former year-long required course.

Among our local district respondents, 81 systems in 49 states reported on their requirements. In the five-year period between 1970 and 1975, only eight districts increased...

TABLE IV
Changes in Social Studies Requirements, 1970 and 1975

| Requirements Increased (1/2 or More Credits) | 8 |
| Requirements the Same | 52 |
| Requirements Decreased (1/2 or More Credits) | 21 |

TABLE V
Changes in Social Studies Requirements, 1970 and 1975

| No Change in Requirements | 70 |
| Increase in Requirements | 1 |
| Decrease in Requirements | 4 |
| Shifts Within Same Requirement Total | 11 |
| Insufficient Data | 4 |


their requirements, primarily by one semester. Requirements in 52 districts remained the same. However, approximately one-fourth (21 districts) reported a decrease in social studies requirements. (See Table V.) It is evident that the movement against the social studies is largely a grass-roots, community-centered development. This is a development which social studies teachers and organizations ought to be able to meet and thrust off if we are properly united, professionally active, and really believe in what we are doing. I am convinced, unfortunately, that a major force in the decline of the social studies is our own lack of conviction and persuasiveness as to the import of the field.

Freedom of Teaching

Perhaps the do-your-own-thing era we have just suffered has paid some dividends, particularly towards encouraging individual teacher creativity and independence. Of course, the parallel growth of unionism and the enlarged security of teachers has also contributed to an increasing acceptance of the concepts of freedom to teach and freedom to learn. Relaxed state and local regulations and requirements are a further source of encouragement for teachers to approach formerly closed or taboo areas in the curriculum. We asked our district respondents as to the openness of their teachers when confronted with controversial topics, and were rewarded with replies indicating that in connection with such hot issues, up to 80 per cent of the elementary teachers and 90 per cent of the secondary school teachers felt quite free to approach them in class. This is a great improvement over the percentages reported in similar studies just a few years ago; but, of course, we must remember that the respondents in our case were not the teachers themselves. Nevertheless, in the present era a much healthier air of freedom seems to exist in our schools. This is substantiated by two recent studies in California where the classroom teachers themselves were queried. Stanton, for example, found that 80 per cent of the 267 high school teachers he sampled indicated they were free to teach whatever they wanted.*

Methods and Techniques

As to teaching methodology, the foregoing studies also found teachers reporting that they are using the approaches constructed to be associated with the new social studies, particularly inquiry, conceptual, broad-field, and simulation-game approaches. Our respondents also agree that teaching styles have been materially influenced by the new social studies projects. Over ¾ of them believe this is clearly apparent in the secondary schools, and about 60 per cent feel there has been an average-to-great impact upon elementary school practices. If this is so, we should be experiencing a virtual Renaissance in social studies instruction. Do we have further evidence on this?

Our respondents, however, reported that the new social studies projects have had minimal influence on textbook selection, the employment of teachers, and upon teacher training. They also indicate a very limited use of the new projects in the schools. This reflects the common knowledge that the sales of many of these programs have been far below the expectations of their developers and publishers. Our responses from the state and district levels closely parallel one another in indicating which of the newer programs they believe have had the greatest influence in their areas, but it seems that the impact of no single program was particularly significant. (See Table VI.)

One of the California studies previously cited certainly supports this view. Here... of the fact that the bulk of the high school teachers claimed that they are employing the methodology of the new social studies, over 70 per cent of the sampling admitted little direct teaching of skill development. In this study 90 randomly selected high school social studies instructors in a large and cosmopolitan county reported that they are not using the new social studies projects to any considerable extent. Indeed, Britton found, for example, that 27 per cent had never heard of the Amherst Project; 33 per cent had never heard of Law in a Free Society; 43 per cent had never heard of Sociological Resources for Secondary School Social Studies; 46 per cent had never heard of the High School Geography Project; 33 per cent had never heard of Patterns in Human History; and 35 per cent had never heard of Econ 12 or American Political Behavior—in spite of the fact that the majority were seasoned teachers, and over 30 per cent reported belonging to local, state, or national social studies councils. Less than ten per cent of all of her respondents had tried one of the projects listed, and the list included more than those mentioned above.

Thus we face a perplexing dilemma. If teachers are using new social studies methodologies and are not deeply involved in the new programs or influenced directly by them, what accounts for their familiarity with the procedures? Could it be their professional reading? Absolutely not! Over 90 per cent of our district respondents claim that professional social studies literature has but average-to-little influence upon either element, y or secondary school instruction. Stanton found even more depressing information from the teachers themselves. Only 15 per cent of his sampling belong to social studies organizations, and only 13 per cent reported using social studies journals. Nevertheless, one way or an-

other. at least the terminology of the new social studies has percolated to the teachers. Yet we have conflicting evidence as to actual practice. Undoubtedly, however, from discovery techniques and case studies to role playing and pupil action-research within the community, aspects of the new social studies are found in many classrooms and school situations today. Conventional textbooks of the present era, curriculum guides, and inservice education programs have incorporated and emphasize important elements of the new social studies. Perhaps large numbers of children and youth are being exposed to and involved in timely and revitalized socio-civic education. Our study and other critiques and research, however, lead us to seriously question such conclusions. This is an area ripe for thorough examination. We all know that new content approached in tried ways soon loses its glamor. Is that instruction about problems can be very different from involvement in problem inquiry. Large-scale investigation as to just what is going on in schoolrooms, both in content and techniques, is still badly needed.

A Basic Social Studies Framework
Un fortunately, articulation of social studies programs between elementary and secondary schools and even within these entities seems to be largely a paper operation. A majority of our respondents indicate that a well-integrated scope and sequence just does not exist in their systems. In spite of a number of curricular revisions reported under way at local levels, individual school and teacher autonomy, as well as the lack of specific allocations of topics or subject matter in recent state social studies frameworks or guides, all contribute to the increasing discontinuity of the patchwork social studies programs of our times. This writer has long stressed the virtues of a national curricular framework. I now believe that such guidelines are all the more imperative to help local curriculum makers and teachers in the vital job of selection that challenges us today. (At the same time I must admit that our difficulties in carrying out this study, as well as its results, do not encourage us to believe in the feasibility of such a development. But we must do something to secure at least a minimal foundation.)

Are there not some unique insights about human beings and democratic society that should accrue through social education? Are there not some essential competencies that the social studies experience should help develop? Are there not key shared values of the culture that the socio-civic curriculum needs to help maintain and extend? Lewenstein and Tretten, previously cited, came to the discouraging conclusion in their research that social studies teachers "have given up on any attempt to agree on what their students should learn." If this situation cannot be reversed, we are in a hopeless situation.

A recent study of almost 800 urban high school youth reaffirms what previous similar research has underscored—that the social studies are less important and even less interesting than other high school subjects; and, in this sampling, our subject area was designated as that most frequently studied merely to gain grades and least frequently for the value of the knowledge involved. This is the ultimate indictment from our prime customers! Undoubtedly this underscores another important factor in the current malaise of the social studies. For a variety of reasons, a great number of us, are not reaching our students.

Major Changes 1970–1975
In conclusion, what are the major changes and tendencies affecting the social studies in the last five years? Our respondents listed many. (See Table VII.) A number of these we have already alluded to or discussed. For the purposes of this report we have removed some of the general or underlying (but not unimportant) causal factors mentioned, such as seriously reduced funding, popular alternative programs, inadequately trained personnel, lack of administrative leadership, small rural schools, etc., which tend to affect the entire curriculum. Rather, we list the recent developments more directly devolving on the social studies. It should be noted that changes occur rapidly in our times, and certain of these conditions are now being modified or may be materially altered in the years immediately ahead. We can, for example, report that a goodly number of our respondents believe we are past the apex of some of these elements, such as the mini-course bandwagon, specialized offerings in ethnic studies, and the anachronistic curriculum itself. On the other hand, there is a feeling that gaming and simulations are still mounting in popularity, and that concerns about law and citizenship education will continue to grow. A number of these reported tendencies, of course, tend to conflict with or counterbalance one another. Table VII provides rich opportunities for speculation as to future directions.

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Scenarios of the Future

And what of tomorrow? Today tea leaves must be read while the tea is still in the pot; a crystal ball must be revolving. I hesitate to forecast, but I believe that the list in Table VII portends several alternate scenarios. What we social studies educators do or do not do in the immediate future will make a great difference in ultimate outcomes. I still hold that our destiny remains to an extent in our own hands; but options and the time to make them are running out.

One possible future includes a steadily declining curricular field, diffused and balkanized, often turning backwards and up panacea alleys. Increasingly delimited because of its own lack of purpose and direction and by the failure to agree upon a core of socio-civic learnings. It is staffed by personnel who seem to have little professional concern or élan, let alone much faith in what they are doing, who have lost the vision and the will to forge a comprehensive and articulated social studies program functioning at the heart of a liberating education for young Americans.

Another option promises renewed and unified efforts at convincingly defining the fundamental contributions of the field toward helping meet essential individual and societal needs. In this future, teachers, parents, and concerned civic organizations and agencies collaborate in developing efficacious programs which can be evaluated, and in extending timely offerings which attract pupil popularity and increasing enrollment. This surge of interest reflects the enthusiasm of mentors who know where they are headed and why, for they are certain that the social studies are more basic to the maintenance and extension of democratic values and to the future of this nation than is any other disciplinary area.

But which future emerges remains up to each of us, individually and in concert with our colleagues, in the actions we take and in the decisions we make in the days right ahead.
CIJE Article No. 3: "Quest for Justice in 200 Years of American History and in Contemporary American Education"

1. Reading the Article

Because the article has no immediately discernible outline (headings, underlinings, parts, sections, chapters, etc.), it needs to be read in its entirety. Skimming will not draw out the main ideas.

2. Characteristics of the Type of Article

There is no formal structure other than straight exposition—no introduction, subtitles, definitive summary, numbering of main points, etc. In short, there is no "magic sentence" to lift for the annotation. In contrast, most journal articles contain section headings, sections that provide summary information, or author annotations. The article discusses and advocates something—in this case moral education. The author defines his term (pages 1-3), asks what it can and cannot be expected to do (pages 2-7; pages 9-10), provides examples of moral education in action (throughout the text), and offers a history of moral education in the United States (pages 8-11). Because the author treats major topics in a recurring manner...
throughout the text rather than a single time, it is particularly important that the annotator read the entire text carefully. The annotation must be based on the article as a whole. The annotation should cover the overall theme of the author's discourse and not get bogged down in details that merely illustrate his theory.

3. Annotation Style/Content

The article is long and involved—it is more similar to a conference paper than to most journal articles. Whereas journal articles usually are restricted to brief explanations of an idea or theory, or to explanations of a research project, this article consists of observations by the author on a very involved subject and of excerpts from a lecture series given by the author.

The article could be covered by an indicative annotation which would suggest the aspects of the topic which the author discusses. It could, however, also be treated informatively, with emphasis on the overall theme. In either case, care should be taken to emphasize that the article consists of expository argumentation as well as numerous sub-themes and topics in support of the central argument.

4. Sample Annotations

Sample annotations #1, 2, 4, and 5 use an indicative mode to inform the reader about the topics covered in the article. Annotation #3 uses an informative style to stress the implications of moral reasoning, without
detailing the fine points of the article's specific content. Sample annotations #1 and #2 concentrate on moral reasoning stages--without defining what the stages are.

Sample annotation #1 stresses the author's conclusions and develops the relationship of the author's theory to American society. The other annotations do not stress this relationship in such an absolute way.

Suggests that individuals develop moral reasoning skills in stages which can be influenced and enhanced by the educational and social environment. Relates this theory to the moral development of American society in general by examining public and governmental reaction to social issues of the 1960's and 1970's.

Sample annotation #2 identifies moral thinking stages, discusses the development of moral education historically, and touches upon its relationship to individuals.

The stages of moral thinking are defined in this article and their relationship to the moral education of students is discussed. The developmental concept of moral education is treated with respect to the historical evidence of societal or cultural changes in attitudes towards justice in America.

Sample annotation #3 is informative and gives the author's tone and suggests his style, but does not convey the broad scope of the discussion.

Of the six stages of moral reasoning, most adults ultimately reach stage five, progressing from level to level. If society is to become more just, it needs democratic schools. The tortured movement of society toward justice makes this both more possible and more urgent in the years ahead.

Sample annotation #4 uses an indicative style which allows for considerable detail, particularly in defining the six stages of moral
development, but which doesn't mention the implications or development of
the author's theme.

Documented by interviews with children and adults from six different countries, the concept of moral education is presented as a developmental process consisting of a sequence of stages based on six orientations: punishment and obedience, instrumental relativist, interpersonal concordance, law and order, social-contract legalistic, and the universal ethical principle.

Sample annotation #5 identifies scope, content, and simplifications of moral education as discussed by the author, captures his cone, and indicates the breadth of his ideas. It does not indicate, however, that the article is essentially an argument in favor of moral education.

Drawing from research and focusing on six stages of morality development as the basis of a moral education program, this article discusses renewed interest in moral education, the historical trend toward moral advance in America, the hidden curriculum, and the just (democratic) community.

5. Indexable Concepts and Possible Descriptors

Concepts in this article seem to break down into five general groups: (1) Values/Ethics; (2) Development; (3) Social Concepts; (4) History; and (5) Educational Concepts. There is no obvious educational level, so a leveling descriptor is not necessary.

At least one descriptor covering each of the five categories should be used to index this article. Ideally, there should be a major descriptor covering each of these categories. The variety of descriptors which can be used to index this article illustrate the range of possible terms open...
to the indexer and emphasizes the necessity for a searcher/user to use the Thesaurus to select the most appropriate terms.

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<th>Major</th>
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Development Concepts:

*MORAL DEVELOPMENT, the central theme of the article, is a specific descriptor for the article's subject and should be used as a major descriptor. The indexer is particularly fortunate when a descriptor is so exact. Use of parallel developmental terms such as CHILD DEVELOPMENT, INDIVIDUAL DEVELOPMENT, and SOCIAL DEVELOPMENT would be extraneous. However, the term DEVELOPMENTAL STAGES is pertinent and may be used as a minor descriptor.

Values/Ethics Concepts:

*ETHICAL INSTRUCTION (UF Moral instruction) is a near-synonym of 'Moral Education' and should be used as a major descriptor. MORAL VALUES specifically describes the types of values which are of interest to the author but may be entered as a minor since manual access through 'moral' is sufficiently provided by *MORAL DEVELOPMENT.

Social Concepts:

*SOCIAL ATTITUDES play such a major role in developing individual moral attitudes that the term should be used as a major. Also, the author spends a considerable amount of time drawing social implications of various moral stances and of individual moral development.
History Concepts:

*EDUCATIONAL HISTORY should be used as a major descriptor because it is representative of the context in which the arguments in favor of moral development are presented. SOCIAL HISTORY is too broad. The use of UNITED STATES HISTORY would be somewhat misleading as the author discusses trends and background of the moral education movement within other countries also.

Educational Concepts:

*HUMANISTIC EDUCATION should be used as a major descriptor because it is the most specific type of education within which moral development can be categorized. The author expresses the idea that a humanistic educational environment is needed to foster moral development. Although EDUCATIONAL PHILOSOPHY is a very broad term, it is an appropriate minor descriptor because it designates the broad discipline which encompasses moral development within an educational setting. EDUCATIONAL OBJECTIVES and EDUCATIONAL RESPONSIBILITY can also be useful as minor descriptors because they relate to the author's discussion of implications of moral education to the school system.

Mandatory Leveling Terms:

Really not applicable in this case.

Pub Type Code:

The appropriate Pub Type code is 120, which describes "Opinions/Personal Viewpoints/Position Papers/Essays."
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For many contemporary educators, the term "moral education" has an archaic ring, the ring of the last vestiges of the Puritan tradition in the modern school. This archaic ring, however, does not arise from any intrinsic opposition between the statement of educational aims and methods in moral terms and their statement in psychological terms. In fact, it was just this opposition which the great pioneers of the social psychology of education denied in such works as John Dewey's Moral Principles in Education and Emile Durkheim's Moral Education. Both of these works attempted to define moral education in terms of a broader consideration of social development and social functions than was implied by conventional opinion on the topic, but both recognized that an ultimate statement of the social aims and processes of education must be a statement couched in moral terms.

Unfortunately, the educational psychologists and philosophers who followed Dewey's trail retained his concern about a broad phrasing of the goals of education in terms of a social traits and values (e.g., cooperation, social adjustment, "democraticness," mental health) without retaining Dewey's awareness that intelligent thought about these traits and values required the concepts dealt with by moral philosophers and psychologists. More recently, however, thoughtful educators and psychologists have become acutely aware of the inadequacies of dealing with moral issues under cover of mental-health or group-adjustment labels. We have become aware, on the one hand, that these mental-health labels are not really scientific and value-neutral terms; they are ways of making value judgments about children in terms of social norms and acting accordingly. On the other hand, we have come to recognize that mental-health and social-adjustment terms do not really allow us to define the norms and values that are most basic as ideals for our children. The barbarities of the socially conforming members of the Nazi system and the other-directed hollow men growing up in our own affluent society have made us acutely aware of the fact that adjustment to the group is no substitute for moral maturity.

It is usually supposed that psychology contributes to moral education by telling us appropriate methods of moral teaching and learning. A Skinnerian will speak of proper schedules of reinforcement in moral learning, a Freudian will speak of the importance of the balance of parental love and firmness which will promote superego-identification and so on. When Skinnerians or Freudians speak on the topic of moral education, then, they start by answering Yes to Meno's question "Is virtue something that can be taught?" and go on to tell us how. In Walden Two, Skinner not only tells us that virtue comes by practice and reinforcement, but designs an ideal
republic which educates all of its children to be virtuous in this way.

It is surely a paradox that a modern psychologist should claim as his most relevant intellectual source not Freud or Skinner but Plato, the ancient believer in the ideal form of the good. Yet as I have tried to trace the stages of development of morality and to use these stages as the basis of a moral education program, I have realized more and more that its implication was the reassertion of the Platonic faith in the power of the rational good.

In speaking of a Platonic view, I am not discarding my basic Deweyism, but I am challenging a brand of common-sense first enunciated by Aristotle, with which Dewey partly agrees. According to Aristotle, "virtue is of two kinds, intellectual and moral. While intellectual virtue owes its birth and growth to teaching, moral virtue comes about as a result of habit. The moral virtues we get by first exercising them; we become just by doing just acts, temperate by doing temperate acts, brave by doing brave acts."

Aristotle then is claiming that there are two spheres, the moral and the intellectual, and that learning by doing is the only real method in the moral sphere. Dewey, of course, does not distinguish the intellectual from the moral, and objects to lists of virtues and vices in either area. Nevertheless, Deweyite thinking has lent itself to the Boy Scout approach to moral education which has dominated American practices in this field and which has its most direct affinities with Aristotle's views.

American educational psychology, like Aristotle, divides the personality into cognitive abilities, passions or motives, and traits of character. In this view moral character, then, consists of a bag of virtues and vices. One of the earliest major American studies of moral character, that of Hartshorne and May, was conducted in the late twenties. Their bag of virtues included honesty, service and self-control. A more recent major study by Havighurst and Taba added responsibility, friendliness and moral courage to Hartshorne and May's bag. Aristotle's original bag included temperance, liberality, pride, good temper, truthfulness and justice. The Boy Scout bag is well known. A Scout should be honest, loyal, reverent, clean, brave.

Given a bag of virtues, it is evident how we build character. Children should be exhorted to practice these virtues, should be told that happiness, fortune and good repute will follow in their wake. Adults around them should be living examples of these virtues, and children should be given daily opportunities to practice them.

You will hardly be surprised if I tell you that this approach to moral education doesn't work. Hartshorne and May found that participation in character education classes of this sort, in the Boy Scouts, in Sunday-School, did not lead to any improvement in moral character as measured by experimental tests of honesty, service, and self-control. More recent research does not provide any more positive evidence as to the effects of character-building programs.

The attraction of the bag of virtues approach to moral education is that it encourages the assumption that everyone can be a moral educator. It assumes that any adult of middle class respectability or virtue knows what virtue is and is qualified to teach it by dint of being adult and respectable. We all have to make these assumptions as parents, but perhaps they are not sound. Socrates asked the question "whether good men have known how to hand on to someone else the goodness that was in themselves" and goes on to cite one virtuous Greek leader after another who had non-virtuous sons. Shortly, I will describe to you what I believe to be a valid measure of moral maturity. When this measure was given to a group of middle class men in their twenties and also to their fathers, we found almost no correlation between the two. The morally mature father was no more likely to have a morally mature son than was a father low on moral development. So numbers now support Socrates' bitter observation that good fathers don't make good sons or don't qualify as teachers of virtue.

In the context of the school, the foolishness of assuming that any teacher is qualified to be a moral educator becomes
evident if we ask, "Would this assumption make sense if we were to think of moral education as something carried on between one adult and another?" A good third grade teacher of the New Math and a good math teacher of graduate students operate under much the same set of assumptions. How many moralizing school teachers, however, would wish to make the claim that Protagoras made to young graduate students, that "My claim is that I am rather better than anyone else at helping a man to acquire a good and noble character, worthy of the fee I charge"?

If we think of moral education as something carried on at the adult level, we recognize that the effective moral educator is something of a revolutionary rather than an instiller of virtues. Protagoras could safely collect his fees for improving character because he meant by moral education the teaching of the rhetorical skills for getting ahead. When Socrates really engaged in adult moral education, however, he was brought up on trial for corrupting the Athenian youth. Perhaps there is still nothing more dangerous than the serious teaching of virtue. Socrates was condemned to death, because as he said,

I do nothing but go about persuading you all, old and young alike, not to take thought for your person or property, but for the improvement of the soul. I tell you virtue is not given by money, but that from virtue comes money, and every other good man, public as well as private. This is my teaching, and if this is the doctrine which corrupts the youth, my doctrines are mischievous indeed. Therefore, Men of Athens, either acquit me or not; but whichever you do, understand that I shall never alter my ways not even if I have to die many times.

What we have claimed is that research findings on methods of education cannot revivify the traditional conception of moral education as the transmission of the fixed values of the teacher, the school, and the majority community. Instead we shall offer what we consider to be a more adequate approach to moral education. The origins of our position are to be found in the writings of John Dewey who, in works like *Ethical Principles Underlying Education* (1909), first presented a "progressive" or "developmental" conception of moral education. Proposing that intellectual education is the stimulation of the child's development of an active organization of his own experience, Dewey also stressed the central role of thinking or active organization in morality. Further, he stressed that development is the critical aim of moral education and that this development takes place through stages.

Let me briefly document these claims by some research findings. Using hypothetical moral situations, we have interviewed children and adults about right and wrong in the U.S., Britain, Turkey, Taiwan and Yucatan. In all cultures we find the same forms of moral thinking. There are six forms of thinking and they constitute an invariant sequence of stages in each culture.

I. Pre-Conventional Level

At this stage the child is responsible to cultural rules and labels of good and bad, right and wrong, but interprets these labels in terms of either the physical or the hedonistic consequences of action (punishment, reward, exchange of favors) or in terms of the physical powers of those who enunciate the rules and labels. The level is divided into the following two stages:

Stage 1: The punishment and obedience orientation. The physical consequences of action determine its goodness or badness, regardless of the human meaning or value of these consequences. Avoidance of punishment and unquestioning deference to power are valued in their own right, not in terms of respect for an underlying moral order supported by punishment and authority (the latter being Stage 4).

Stage 2: The instrumental relativist orientation. Right action consists of that which instrumentally satisfies one's own needs and occasionally the needs of others. Human relations are viewed in terms like those of the market place. Elements of fairness, reciprocity and equal sharing are present but they are always interpreted in a physical pragmatic way. Reciprocity is a matter of "you scratch my back and I'll scratch yours."
II. Conventional Level

At this level, maintaining the expectations of the individual's family, group, or nation is perceived as valuable in its own right, regardless of immediate and obvious consequences. The attitude is not only one of conformity to personal expectations and social order, but of loyalty to it, of actively maintaining, supporting, and justifying the order and of identifying with the persons or group involved in it. At this level, there are the following two stages:

Stage 3: The interpersonal concordance orientation—"good boy," "nice girl" morality. Good behavior is that which pleases or helps others and is approved by them. There is much conformity to stereotypical images of what is majority, or "natural" behavior. Behavior is frequently judged by intention—"he means well" becomes important for the first time. One earns approval by being "nice."

Stage 4: The "law and order" orientation. There is orientation toward authority, fixed rules, and the maintenance of the social order. Right behavior consists of doing one's duty, showing respect for authority and maintaining the given social order for its own sake.

III. Principled Level

At this level, there is a clear effort to define moral values and principles which have validity and application apart from the individual's own identification with these groups. This level again has two stages:

Stage 5: The social-contract legalistic orientation. This stage generally has utilitarian overtones. Right action tends to be defined in terms of general individual right and in terms of standards which have been critically examined and agreed upon by the whole society.

There is a clear awareness of the relativity of personal values and opinions and a corresponding emphasis upon procedural rules for reaching consensus. Aside from what is constitutionally and democratically agreed upon, the right is a matter of personal "issues" and "opinion." The result is an emphasis upon the "legal point of view," but with emphasis upon the possibility of changing law in terms of rational considerations of social utility (rather than fixating it in terms of Stage 4 "Law and Order"). Outside the legal realm, free agreement, and contract is the binding element of obligation. This is the "official" morality of the American government and Constitution.

Stage 6: The universal ethical principle orientation. Right is defined by the decision of conscience in accordance with self-appropriated ethical principles appealing to logical comprehensiveness, universality and consistency. These principles are abstract and ethical (the Golden Rule, the categorical imperative). They are not concrete moral rules such as the Ten Commandments (except insofar as these have been internalized by the individual, i.e., not imposed from the outside, but truly made one's own). At heart they are the principles of justice, of the reciprocity and equality of the human rights and of respect for the dignity of each human being as an individual person.

The concept of stage, moral or cognitive, means a sequence of steps. The stage concept means that if change in moral thinking and choice occurs, it is always forward, not backward; and it is always to the next stage up. We have followed 60 Chicago men for the twenty years since they were age ten. Every three years, we re-interview them and have found that if there is movement over the three-year period, it is always to the next stage. Some of our men are Stage 2, some Stage 5 as adults. Rate and terminus of development have varied, but the sequence for all is the same. We have found the same invariant order in all other cultures.

Our stage definitions are based on analyzing the way people reason about moral dilemmas. An example, used in our longitudinal research is this:

In Europe, a woman was near death from a very bad disease, a special kind of cancer. There was one drug that the doctors thought might save her. It was a form of radium that a druggist in the same town had recently discovered. The drug was expensive to make, but the druggist was charging
ten times what the drug cost him to make. He paid $200 for the radium and charged $2,000 for a small dose of the drug. Heinz, went to everyone he knew to borrow the money, but he could get together only about $1,000 which was half of what it cost. He told the druggist that his wife was dying, and asked him to sell it cheaper or let him pay later. But the druggist said, "No, I discovered the drug and I'm going to make money from it" Heinz got desperate and broke into the man's store to steal the drug for his wife. Was he morally right or wrong to steal the drug in this case?

Let me illustrate the stages by response to this dilemma by one case from our longitudinal study.

In 1955, Tommy was age 10. He said, "Heinz should not steal, he should buy the drug. If he steals the drug, he might get sent to jail and have to put the drug back." Tommy's reason for choice is concern about punishment. Punishment is one reason used at Stage 1 of moral reasoning. Defeference to superior power and prestige is another.

Tommy says, "But Heinz's wife might be an important lady like Betsy Ross, she made the flag. The police would make the druggist give her the drug."

At age 10, Tommy was Stage 1, the first step in the moral sequence. Between 10 and 13 Tommy moved from Stage 1 to Stage 2. Tommy said, "Heinz should steal the drug to save his wife's life. He might get sent to jail but he still has his wife." Tommy's reasoning is now Stage 2; it appeals to instrumental interests. Punishment and power are not blindly used to define the right. Right action is a rational calculation of the best interests or consequences for the self.

Although Stage 2 is egocentric, it considers fairness. Fairness at Stage 2 is concrete exchange or reciprocity. Tommy is asked, "Should Heinz steal the drug if it was a friend dying?" He answers, "That's going too far. He could be in jail while his friend is alive and free. I wonder if the friend would do it for him."

Three years later, Tommy had moved to Stage 3. He says, "If I was Heinz, I would have done the same thing. You can't put a price on love, no amount of gifts make love. You can't put a price on life either. Heinz was thinking about the others, their life."

Stage 3 takes the point of view of the group, of what people share. The value of life and of love are moral and priceless because they are shared. At Stage 3 morality is also altruism; Heinz is moral because he has concern about others. Being moral is defined by roles—being a good husband, father, friend.

Not until the mid-twenties does Tommy move from Stage 3 to Stage 4. In the mid-twenties he says, "I have obligations to my country, my wife and family, my religion. There is an obligation to my wife, there is not only love but obligation. We have committed ourselves before God, the contract of marriage."

At Stage 4 morality is not just concern, it is obligation to society's laws and contracts, to God's. It is a morality of maintaining society's orders and its obligations, possibly with a religious basis.

Stage 4 is the terminus of development for the majority of adults. Less than twenty percent reach the next Stage, Stage 5, yet Stage 5 underlies the Constitution and the Declaration of Independence. Stage 5 resolves moral conflicts by a hierarchy of values which underlie the rules or laws. It defines a social contract to maintain the law which also binds the law to maintain the universal human rights and values underlying the conventional order. Government is instituted to secure men's basic rights, and derives its powers from the consent of the governed.

There is a higher sixth stage reached only by a few adults. Both Abraham Lincoln and Martin Luther King expressed Stage 6 thinking, but so do a number of lesser mortals whom we have interviewed. At Stage 6 the natural rights of Stage 5 are defined by a general ethical principle of moral obligation universally applicable to all mankind. These Stage 6 principles are respect for human dignity or personality and
justice or equality of persons. At Stage 6, principles are not only principles for me and my group, they are universal; they are guides to moral choice valid for all mankind.

Each higher stage is a better stage in its ability to resolve moral conflicts impartially. Stage 5 universal rights resolved conflicts unsolved by Stage 4 laws. These conflicts arise where the laws of different societies conflicted. This was the case of our Revolution. The Declaration turned to universal rights above American or British law and society. Following moral philosophers like Emanuel Kant and John Rawls, I argue that Stage 6 principles of justice resolve conflicts where Stage 5 rights conflict. We find that the Stage 6 thinkers we have studied agree on the just solutions to dilemmas unresolved for Stage 5. In this sense, it is desirable for all to understand Stage 6 principles; it can help find solutions that seem fair to all who strive for fairness. A moral conflict is resolved if all men striving to be fair can agree on a solution. With agreement on the facts, Stage 6 principles can lead to agreement.

The facts, then, suggest the possibilities of useful planning of the moral-education component of schooling. Such planning raises more fundamental value issues, however, such as the legitimate aims and methods of moral education in the American public schools. The writer would start by arguing that there are no basic value problems raised by the assertion that the school should be consciously concerned about moral education, since all schools necessarily are constantly involved in moral education. Since the classroom social situation requires moralizing by the teacher, he ordinarily tends to limit and focus his moralizing toward the necessities of classroom management, that is, upon the immediate and relatively trivial behaviors that are disrupting to him or to the other children. Exposure to the diversity of moral views of teachers is undoubtedly one of the enlightening experiences of growing up, but the present system of thoughtlessness as to which of the teacher's moral attitudes or views he communicate to children and which he does not leaves much to be desired.

If it is recognized that the central goal of moral education is the stimulation of development to the next higher stage, how can the teacher go about stimulating the development of moral judgment? We have already rejected the notion of a set curriculum of instruction and exhortation in the conventional moral virtues, a conception killed by Hartshorne and May's demonstration of ineffectiveness. Dewey pointed to the inadequacy of such a conception long ago and traced it to the fact that it assumed a divorce between moral education and intellectual education on the one side, and a divorce between education and real life on the other. A teacher's moralizings must be cognitively novel and challenging to the child, and they must be related to matters of obvious, real importance and seriousness.

It is not always necessary that these matters be ones of the immediate and real-life issues of the classroom. I have found that my hypothetical and remote but obviously morally real and challenging conflict situations are of intense interest to almost all adolescents and lead to lengthy debate among them. They are involving because the adult right answer is not obviously at hand to discourage the child's own moral thought, as so often is the case. The child will listen to what the teacher says about moral matters only if the child first feels a genuine sense of uncertainty as to the right answer to the situation in question. The pat little stories in school readers in which virtue always triumphs or in which everyone is really nice are unlikely to have any value in the stimulation of moral development. Only the presentation of genuine and difficult moral conflicts can have this effect.

It is clear, then, that a developmental conception of moral education does not imply the imposition of a curriculum upon the teacher. It does demand that the individual teacher achieve some clarity in his general conceptions of the aims and nature of moral development. In addition, it implies that he achieve clarity as to the aspects of moral development he should encourage in children of a given developmental level and as to appropriate methods of moral communication with these children.
Most important, it implies that the teacher start to listen carefully to the child in moral communications. It implies that he become concerned about the child’s moral judgments (and the relation of the child’s behavior to these judgments) rather than about the conformity of the child’s behavior or judgments to the teacher’s own.

At this time in our history, there is a renewed interest in moral education, absent since the thirties in America. Why? Some would argue that this interest is a reaction to crime, Watergate and the decline of traditional sexual morality, a conservative return to the social basics of moral order, and discipline like the return to traditional academic basics in curriculum. I propose instead that the current interest in moral education rises primarily from the rediscovery by liberals of the moral principles, behind the liberal faith and the realization that these principles need to enter into education. Like the liberal reaction to Watergate, the liberal interest in moral education is a rediscovery in the seventies of the principles of justice behind the founding of our nation. The liberals of the sixties had lost awareness of the principles underlying liberalism, the principles of the Declaration and the Constitution. Instead of a faith in justice principles, the liberals of the sixties had faith in technology, in the social and physical sciences and in rational political manipulation as tools of social progress.

As the liberal faith in rational instrumental social means has been disappointed, there has been a growing awareness of the need to have rational or moral social ends and principles of action and to embody these ends in education. This is fundamentally the meaning of the current interest in moral education.

Behind this interest lies the principle of justice on which our society was founded. America was the first society whose government was grounded on a conception of principles of justice. The Declaration of Independence called these principles the self-evident truths that all men are created equal with inalienable rights to life, liberty, and the pursuit of happiness. Watergate tells us that these principles have never been understood by the majority which every year votes down the Bill of Rights in the Gallup poll. The movement for moral education recognizes that in our society, all men must acquire through education, some understanding of and acceptance of these justice principles. Watergate reminds us that justice principles cannot be maintained by force, laws and government since the very leaders of that government failed to understand and support these principles. It reminds us of the need of an education for and through justice.

Using the stage concept which we have outlined, let us analyze liberal reactions to Watergate. We said that America was the first nation whose government was publicly founded on post-conventional principles of justice and the rights of human beings, rather than upon the authority central to conventional moral reasoning. This is Stage 5. At the time of our founding, our Stage 5, post-conventional or principled moral and political reasoning was the possession of the minority, as it still is. Today, as in the time of our founding, the majority of our adults are at the conventional level, particularly the law-and-order fourth moral stage. The founders of our nation intuitively understood this without the benefit of research and designed a Constitutional government which would maintain principles of justice and the rights of all even though principled people were not in power. The machinery included checks and balances, the independent judiciary, freedom of the press. Most recently, this machinery found its use at Watergate.

The tragedy of Richard Nixon, as Harry Truman said long ago, was that he never understood the Constitution, a Stage 5 document. No public word of Nixon ever rose above Stage 4, the law-and-order stage. His last comments in the White House were of wonderment that the Republican Congress could turn on him after so many Stage 2 exchanges of favors in getting them elected. The level of reasoning in much of the White House transcripts was similar, including the discussion of laundering money. While the tragedy of Richard Nixon was that he never understood the Constitution, the triumph of America is that the Constitution understood
Richard Nixon. It is not free citizens who are bound in "the chains of the Constitution" (Jefferson's phrase) but men who attain power without Stage 5 understanding or acceptance of the justice, rights and principles enshrined in the Declaration.

The liberal reaction to Watergate has understood that Watergate is not some sign of moral decay of the nation, but rather, of the fact that understanding and action in support of justice principles—as still the possession of a minority of our society, and that the moral progress of our nation has far to go. Watergate, then, reflects the slow movement of society from the conventional to the morally principled level.

We believe that historical and cross-cultural evidence supports the notion of a long-range moral evolutionary trend on the societal level. Do societies go through stages of moral evolution? The claim that they do was popular in the nineteenth century and then supposedly disproved by early twentieth century anthropology and sociology. The best work on societal stages of moral evolution was done by Hobhouse in 1906. Hobhouse pooled cross-cultural ethnographic data with data of written history to define cultural stages which roughly parallel our stages. He found a strong correlation between these moral stages and the level of cognitive and social complexity of a society. One of our students used our moral stages to rate the level of legal institutions of different societies. He found that with increased social complexity, moral level of legal and other institutions developed in correspondence with our stages—confirming Hobhouse's work.

The notion that there is a historical trend toward moral advance in our own society is supported by our generational findings. We have interviewed men in their twenties and their fathers and others, and we find twice the proportion of the younger generation principled than their parents, with education controlled.

To document the notion of moral advance in contemporary America, let us take two issues of rights—war and social equality. The agonizingly slow but relatively consistent trend in regard to civil rights and racial equality is one of many indicators of the directionality of a democratic system toward carrying its original premises of justice beyond the boundaries accepted by the founders of the system. The civil rights conflict of the past twenty years represents a conflict between universal justice and the demands of conventional or society-maintaining morality. A similar conflict lies behind the agony of Vietnam, the first time in which a war engaged in for national security has been massively questioned in terms of universal human rights to life.

Why should there be a cultural as well as an individual progression through stages of justice? By definition, justice is a resolution of conflicting claims in light of principles and procedures which appear fair to the parties involved in the conflict. When a society has arrived at a relatively just solution to a conflict, that solution tends to be maintained, whereas a situation of injustice is always a situation of disequilibrium. (This is at least true in a society whose socio-political institutions have a constitutional democratic structure so that authority and force do not maintain arbitrary unjust solutions.)

While the civil rights struggle and Watergate show us that Stage 5 is not yet assured, let us point to some trends which show movement toward Stage 6. We will use issues before the Supreme Court, a bulwark of the Stage 5 concepts of our society. First, the issue of capital punishment. The Court's Furman decision that capital punishment is a form of "cruel and unusual punishment" prohibited by the Bill of Rights rested on the Stage 5 premise that the administration of capital punishment violated the criminal's rights to procedural justice or due process. Procedural justice was the manner under which the modern Supreme Court, the Warren Court, has extended the rights of minorities or underprivileged groups in our society—of criminals, blacks, and women. Using the concept of due process as procedural justice, the Court cites research on capital punishment supporting the conclusion "that the application of the death penalty is unequal; most of those executed were poor, young, and ignorant." The Warren Court's due process
is part of our Stage 5 Constitutional heritage. The issue of capital punishment, however, eventually requires a more radical justice principle, closer to our Stage 6. Some justices proposed that capital punishment was cruel and unusual because it violated a basic human right nowhere directly treated in the Bill of Rights—the right to human dignity. Justice Brennan said, "A punishment is cruel and unusual if it does not conform with human dignity, if it treats members of the human race as non-humans, as objects . . . even the vilest criminal remains a human being possessed of common human dignity."

The notion of a "right to human dignity" is a more radical equalitarianism than due process or equal opportunity. It upholds the "sacredness" of the life of the murderer, but it also upholds the right of the terminally ill to "die with dignity." The "right to dignity" means the right of each person to be treated as an end, not as a means—Kant's categorical imperative. Both the individual desiring euthanasia and the convicted murderer have the right to be treated as ends in themselves, rather than as means to the preservation of societal or Divine law and order.

The Court's need to define a right to human dignity is even more important in the enforced school bussing controversy. The rationale provided by the Court for desegregation of schools has been Stage 5, "equal opportunity," the doctrine that schools cannot be separate but equal. This doctrine has rested on dubious statistical or social scientific evidence that educational facilities could not be separate and lead to equal educational achievement. Jencks' treatise is the last major summary indicating that school desegregation and compensatory education do little to promote equal opportunity.

If equal opportunity was a weak reason for school desegregation, it is an even weaker reason for enforcing bussing. Enforced bussing is hardly leading to enhanced educational opportunity for either black or white students and it is clearly a restriction of liberty of whites and sometimes of blacks. The only clear rationale for enforced bussing is the equal right to human dignity. It seems right to enforce desegregation not because blacks will learn better; it is because a school is a public facility and denial of access to a public facility to blacks is a public insult to their equal worth, just as refusing access to a bus or swimming pool is.

We have pointed to a Stage 6 conception of justice in education in terms of bussing. Such a justification for enforced bussing depends upon a conception of education for justice. America was the first country to create a system of public education in the belief that public education could and should make citizens capable of making this a more just society. In the view of Jefferson and other early advocates, public education was necessary for a society in which the citizen was someone who signed the Social Contract with informed consent.

A country of citizens which signs our social contract, the Constitution, with informed consent requires public education. We have had a great deal of talk about the right to read, but education's guarantee of the right to read must be understood to include the right to read the Constitution, to sign the social contract with informed consent. This means understanding the justice principles behind the Declaration of Independence and the Constitution.

In thinking about education for justice let us turn from desegregation to the second educational movement of the last twenty years, the movement for curriculum reform, educational technology, and educational research and development. Beneath this movement has been a vague liberal belief in justice. Through educational technology, through upgrading the curriculum and methods of instruction, our poor and disadvantaged students would learn more academically and would have a fairer chance at life's goods and opportunities. Improved curriculum and instructional methods, it was hoped, could reach those students who would be condemned to poverty without academic skills. Together with curriculum improvement, school desegregation would raise educational opportunities and later life chances for the poor and black.

The seventies finds these liberal hopes for
The fallacy of educational technology and curriculum improvement as a cure for social justice is suggested by Ed Zigler's comment when he took over Headstart. He said Headstart had been initiated with the goal of seeing the entire country above the 50th percentile in achievement. If society's resources are distributed on a competitive normal curve, improved educational technology may raise the mean of educational achievement, but it won't change the distribution. Educational technology will not help the students to deal with problems of social injustice, unless the schools help students develop a more mature and stronger sense of justice and so as citizens help to make a more just society.

I shall argue that this awareness of the need to deal with justice issues directly makes urgent a different approach to school reform than that of the curriculum reform of the sixties, the democratizing of the schools.

The democratizing of the school is not curriculum reform; it is rather a reform of the hidden curriculum of the schools. The term "hidden curriculum" referred to the moral atmosphere of the school, and the function of the hidden curriculum is moral education or perhaps miseducation. Moral education, if it deals with the hidden curriculum, involves trying to make just schools.

Can the hidden curriculum of the school be made just in an unjust society? According to Plato, a just society could only come through moral education, and men could only be educated for justice in a Republic led by just men, philosopher kings. In Plato's Republic this required hierarchy and the assignment of all power to an elite trained in philosophy. Our own approach is based on John Dewey's democratic reformulation of Plato's Republic. Dewey's approach was based on a faith in individual and social development which my research has helped document.

According to Dewey:

The aim of education is growth or development, both intellectual and moral. Ethical and psychological principles can aid the school in the greatest of all construction—the building of a free and powerful character. Only knowledge of the order and connection of the stages in psychological development can insure this. Education is the work of supplying the conditions which will enable the psychological functions to mature in the freest and fullest manner.

Education, said Dewey, is to aid development, not by teaching, but by supplying the conditions for movement from stage to stage. This we have done through developing moral discussion curricula reproducing conditions in which moral reasoning develops outside the schools.

Developmental moral discussion is open and Socratic, focusing on students' reasoning. Recently twenty high school social studies teachers in Boston and Pittsburgh conducted developmental moral dilemma discussions one period every two weeks for a year. One-fourth of the students in these classes were a stage higher at the end of the year than at the beginning. Students in other classes with the same teachers but without moral discussions did not change during the year.

Dewey told us that the schools should provide the conditions which are found in life to promote development. Verbal moral discussion of dilemmas constitutes only one portion of the conditions stimulating moral growth. When we turn to analyzing the broader life environment, we turn to a consideration of the moral atmosphere of the home, the school, and the broader society, the "hidden curriculum." The first dimension of social atmosphere is the role-taking opportunities it provides, the extent to which it encourages the child to take the point of view of others. The second dimension of social atmosphere, more strictly moral, is the level of justice of the envir-
onment or institution. The justice structure of an institution refers to the perceived rules or principles for distributing rewards, punishments, responsibilities, and privileges among institutional members. This structure may exist or be perceived at any of our moral stages. As an example, a study of a traditional prison revealed that inmates perceived it as Stage 1, regardless of their own level. Obedience to arbitrary command by power figures and punishment for disobedience were seen as the governing justice norms of the prison. A behavior-modification prison using point rewards for conformity was perceived as a Stage 2 system of instrumental exchange. The moral atmosphere of an institution, then, may be at various levels and either stimulate or retard individual moral development. An institutional structure and atmosphere which stimulates moral development we call a "just community."

We developed a prison program founded on the concept of a just community. It assumed that a just community was democratic. All rules and social conflicts were resolved through discussions of fairness in a community meeting—one man, one vote, whether guards or inmates. The program has been going on for five years. It promotes growth toward conventional levels of moral reasoning in inmates, and sometimes leads to remarkable change in life pattern. Inmates in this program see moral atmosphere at their highest level of capacity, usually Stage 3 or 4.

Encouraged by this experience, we helped two years ago to launch a small alternative school within the Cambridge public high school. The theory of the just community high school, postulating that discussing real-life moral situations and actions as issues of fairness and as matters for democratic decision, would stimulate advance in both moral reasoning and moral action. A participatory democracy provides more extensive opportunities for role taking and a higher level of perceived institutional justice than does any other social arrangement.

Our Cambridge "just community" school was started after a small summer planning session of volunteer teachers, students, and parents. The school started with six teachers from the regular school and 60 students; ten were from academic professional homes; the rest, one third black, were working class. Half of these were already in trouble or were school failures. About half were Stage 2, half Stage 3. The usual mistakes and usual chaos of a beginning alternative school ensued. Within a few weeks, however, a successful democratic community process had been established. Rules were made around pressing issues: disturbances, drugs, hooking. A student discipline committee or jury was formed. The resulting rules and enforcement have been relatively effective and reasonable. We do not see reasonable rules as ends in themselves, however, but as vehicles for moral discussion and an emerging sense of community.

This sense of community reflects the conventional stages of morality, though its expression is not conventional. Let me cite one example of change in atmosphere due to our approach to democracy. When the school started, the moral response to stealing was Stage 2. If someone is dumb enough to leave something around, it's his fault if it's ripped off. This year a girl had ten dollars stolen from her wallet. When she took it to the community meeting, the group expressed the view that if the school was to be a community, there should be enough trust so that property would be safe unguarded. If it was not, it was the community's problem and everyone should chip in to restitute. They did, and the victim eventually received restitution.

A second example is the racial balance of the schools in the troubled Busto area. The black minority requested that a somewhat larger proportion of blacks from volunteers on the waiting list be accepted. The white majority agreed on the ground that the black students were part of the community and could understand why they felt uncomfortable as less than a third of the school.

In summary, the demand for moral education is a demand that our society become more of a just community. If our society is to become a more just community, based on a democracy, it needs democratic schools. This was the demand and dream of Dewey which is still as unfulfilled as Plato's. I believe that the tortured movement of our society toward justice makes Dewey's dream both more possible and more urgent in the years ahead.
APPENDIX 1

Suggestions for Supervisors on How to Use This Workbook

Purpose of the Workbook

The purpose of this Workbook is to provide step-by-step guidelines for training abstractor/indexers. These guidelines are based on and reinforce the ERIC Processing Manual.

Ideally, supervisors should find (a) prefatory guidelines, (b) documents and articles to be abstracted/indexed, and (c) analyses of abstracts and indexing combined in one book to be helpful and time saving in the training of abstractor/indexers.

It is hoped that the trainee will find the format useful and that the training period will be less difficult and more profitable. In addition, the Workbook lends itself to some objectivity. An abstractor/indexer can see, by reading abstracts written by others, what a good abstract should contain.

Although one possible weakness of the Workbook is that it is general in scope, more exactness and consistency in indexing among the Clearinghouses may be an end result of training abstractors through use of the
Workbook. We do know that indexing will never be 100% precise; however, the indexing guidelines and the analyses of the indexing that an indexer can view in the workbook should reinforce certain firm rules which the trainee should follow.

Components of the Workbook

The Workbook consists of the following parts:

1. Eight RIE documents

Eight documents of different types for indexing and abstracting for RIE include state-of-the-art reviews, a position paper, speech, a multiple-authored document, guide, and research reports.

2. Addition of one RIE document in each Clearinghouse's scope

It is suggested that each Clearinghouse add a ninth RIE document to the Workbook. This document should be a research report in the Clearinghouse's scope to be abstracted in the informative mode. It should follow Document No. 2. This is discussed further under "Instructions for Supervisors."

3. Three CIJE articles

Three journal articles for trainees to index/annotate for CIJE are included.

4. Introduction

The introduction provides prefatory guidelines for indexing and abstracting which reinforce the material in the ERIC Processing Manual. For example, the section on abstracting in the introduction discusses the two basic forms of abstracting. The indexing section discusses ideas such as indexable concepts and specificity in indexing.
5. Analyses of RIE/CIJE documents

The narrative to each RIE/CIJE document/article focuses on the nature, structure, and characteristics of the particular type of document that the abstractor will be working on and describes what the experienced person will look for when abstracting and indexing a particular type of document. It also explains on which part of the document the abstract should be based. Analyses examine the features of the content of the abstract, and sample abstracts are presented with a brief discussion of alternatives of style that the trainee should consider. The analysis of document indexing discusses the weighting of concepts, potential descriptors, and off-target descriptors. Indexable concepts are listed in a chart format.

6. Appendices
   a. Suggestions for Supervisors
   b. Technical Information in Abstracts
   c. Helpful Hints
   d. Rules for Listing
   e. ERIC Tools for Abstracting/Indexing
   f. Forms/Worksheets
   g. List of "Irbs f o: Abstracting/Annotating
   h. Other Word Selection Suggestions

Underlying Assumptions on Which the Workbook is Based

It was necessary to make several broad assumptions before compiling the Workbook. Clearinghouse operate in a variety of ways and it is recognized that the basic assumptions of the Workbook are not necessarily true for all Clearinghouses.
Guidelines in the Workbook are merely suggestive, not prescriptive. Supervisors are asked to examine the Workbook and adapt it for their particular needs. In some cases supervisors may follow the procedures as suggested and have a trainee work through the book following a step-by-step procedure. However, there will be other training situations in which experiences of the supervisor need to be brought into the training. It is recognized that each training situation is different and that materials need to be adapted to particular situations. For example, the trainee may be very experienced and show competency after completing the first two abstracts. It may be that the "Dean Power" document is too difficult and an easier one may be substituted. The supervisor may want to give the trainee actual Clearinghouse documents to abstract from this point on. However, a trainee may have difficulty with the first two abstracts and may need to be given additional "practice" documents to abstract.

Underlying assumptions include the following:

1. It is assumed that the abstractors of articles and documents are also the indexers.

2. It is assumed that whoever abstracts/indexes for RIE will also annotate/index for CIJE. The trainee using the Workbook is first given instructions for indexing/abstracting RIE and then CIJE—the learning is designed to be sequential.

3. As mentioned under Purpose, the information contained in this Workbook is based on information in the EPIC Processing Manual. New ideas
have not been added. It is assumed that trainees will read Sect on 6 and 7 of the Processing Manual before they begin using this Workbook.

4. Since some Clearinghouses have inhouse rules, it is expected that these will be added by the supervisors as necessary. Inhouse rules are not mentioned in this Workbook. All inhouse rules must conform to the guidelines in the Processing Manual.

5. It is assumed that a good abstractor should be able to write a pure form of abstract. The trainee should be able to differentiate and write either an informative or indicative abstract.

Because the informative is a preferred form of abstract according to the Processing Manual, it was decided that the abstractor should be able to write a purely informative abstract before trying to write an indicative abstract. Therefore the first three abstracts the trainees write should be informative.

It is recognized that the mixed form of indicative/informative abstract is common in Clearinghouses and often can be very effective. However, it takes a fairly sophisticated abstractor with experience to be able to combine the forms because it requires an awareness of both forms.

The combined form is discussed in this revision of the Workbook under Document No. 7.

Instructions for Supervisors

This brief section discusses the orientation to ERIC that is helpful to the abstractor before reading about ERIC, describes what the abstractor/indexer should have read before the Workbook, discusses the role of the
supervisor after the verbal presentation, and provides information on the
addition of a document in the Clearinghouse scope by the Clearinghouse after
the trainee has indexed the first two documents.

1. Sequence of exposure to ERIC before Workbook

It would be helpful for the trainee to have a brief orientation
to the ERIC system and the Clearinghouse. A physical walk-through procedure
is helpful. This could include such things as an explanation of the role of
an abstractor. In addition, the supervisor may want to discuss the particular
scope of the Clearinghouse and perhaps recommend to the trainee books
on the subject area of the particular Clearinghouse. Further, it would be
helpful to have the user services person talk with the trainee, explaining
such things as what most requesters want information on and how to
generally write an abstract which is helpful to the searcher.

It would also be useful to discuss policies which are beyond the
scope of this Workbook, for example, the fact that ERIC wants every abstractor
trained in computer searching.

This is a good time to give the trainee a feeling for the nature
of the ERIC system and let the trainee know how his/her work relates to it.

After the orientation to ERIC, there are a number of materials
that the trainee should read before attacking the Workbook. There are also
a number of tools that the trainee should become familiar with. It would
be helpful to let the trainee scan the materials and tools and then discuss
them with the supervisor. These include the following:
1. ERIC staff handbook, which will provide an orientation to the ERIC system;

b. RIE/CIJE monthly issues (it would be of particular use to the abstractor to view the Clearinghouse's input in several monthly issues);

c. Published Thesaurus -- Introduction and Descriptor Groups;

d. Working Copy of the Thesaurus -- Alphabetical, Rotated, and Hierarchical Displays;

e. Working Copy of Identifier Authority List (IAL);

f. Sections 6 and 7 of the Processing Manual on Abstracting and Indexing;

g. Section 8 of the Processing Manual on Vocabulary -- Descriptors and Identifiers.

In addition, it would be useful to the trainee to go through a simple search in RIE with the supervisor explaining how to get from the Subject Index to the abstract.

2. Role of supervisor after orientation to ERIC and after the trainee has examined suggested materials

The supervisor should pull the Workbook's introductions to abstracting and indexing and give them to the trainee to read. After the trainee reads this material, the supervisor may wish to meet with the abstractor/indexer to answer any questions that the trainee may have before he/she begins writing the first abstract. Then the supervisor should pull Document Number 1 and give it to the abstractor, asking the abstractor to write an informative abstract.

After the abstract is written, the abstractor should be given the analysis to compare it with his/her written work. The supervisor should then meet with the abstractor and provide feedback on the quality of his/her work.
When document Number 2 has been completed, the supervisor should choose a research report from the Clearinghouse's scope. It is up to the individual supervisor whether to include one document that can be used over again and write a formal analysis as has been done in the other eight documents in the Workbook. The Clearinghouse supervisor may believe that it would be better to have the trainee work on an actual document, with the supervisor providing verbal feedback.

Whatever method is chosen, feedback is necessary. Preferably this should be given as soon as possible after the trainee has completed each abstract.

3. **Teach the trainee how to write an informative abstract first**

As discussed briefly in the section under Assumptions, it is important that the trainee grasp the informative style first. As mentioned, the abstracts for the first two documents are to be written in the informative style. The next document, the one that is added by the Clearinghouse, should be a research report. If the trainee has not fully grasped the informative style by the end of writing the third abstract, the supervisor should add another document to be abstracted in the informative mode. In other words, it is believed that the Indicative mode should not be taught until the trainee has fully grasped the informative mode. If the trainee is still having trouble at the end of the fourth abstract, it may be well to evaluate the potential of the trainee for becoming an abstractor.
Training Problems and Wisdom

When the writing of this Workbook first began, Clearinghouses were asked to respond to two questions:

1. How long does it take for abstractor/indexers to become proficient?
2. What are the three most difficult problems in training abstractor/indexers?

The results from all Clearinghouses have been compiled and the information is synthesized below. Proper attention should be given to these problems.

Time that it takes to train abstractor/indexers

Clearinghouses reported that abstractor/indexers can be trained to become fairly proficient in two to six months. Most Clearinghouse supervisors indicated that they believed that an abstractor/indexer could write abstracts and index documents satisfactorily after a period of six months.

There are many variables to be considered in the length of time it may take trainees to become proficient: the number of hours that they work per week; their previous experience; their familiarity with ERIC; and their ability to perceive, understand, and transfer document information content into 200 words. Educational background, intelligence, and interest all contribute to productive ability.

It was emphasized that within the first two or three abstracts the supervisor should be able to determine whether a person's work will be satisfactory. One Clearinghouse expressed this idea very well: "Some people
seem to have the skill and others will never develop it. It must be recognized that there are some people for whom abstracting is not appropriate work and this can be discovered within a month or so."

Problems in training abstractor/indexers

1. Hiring

A number of Clearinghouses indicated that a major problem exists in selecting the right person for abstractor/indexer in the first place. Supervisors emphasized the need for the person to have good writing skills, including the ability to synthesize information. Although a few Clearinghouse supervisors stressed the need for the person to have subject expertise, others believed that it could be learned by a person who was articulate and intelligent, with a good analytic mind.

Before hiring, it may be a good idea to request samples of a person's writing.

2. Familiarity with the ERIC Thesaurus

Almost all of the 16 Clearinghouses mentioned that teaching trainees how to use the Thesaurus was a major problem because of its size and some idiosyncrasies. Hopefully, the idiosyncrasies were eliminated with the Vocabulary Improvement Project (1977-80). Problems noted in teaching trainees to index from the Thesaurus focused on indexing to the level of specificity of the document and recognizing what concepts are indexable. Because use of the Thesaurus is viewed as a major problem for trainees, it is suggested in "Sequence of exposure to ERIC before workbook" that the supervisor
introduce and discuss the Thesaurus before the trainee begins to use the Workbook.

3. Writing skills

    Another problem that Clearinghouses mentioned has to do with writing skills. A number of Clearinghouse supervisors indicated that teaching abstractors to write clearly and concisely is a problem. Trainees have problems writing a clear topic sentence, weighting the abstract in proportion to the document, and choosing and putting on paper the most significant ideas.

4. Other problems

    Some trainees have difficulty in evaluating author abstracts. Two author abstracts have been included (see Document Nos. 6 and 8) to help trainees develop skills in determining whether an author's abstract should be used as is, improved upon, or discarded.

    Another problem mentioned is that it is often difficult for trainees to distinguish between the informative and indicative modes. As discussed in the section under Assumptions, learning the informative mode before the indicative should help the trainee to distinguish between the two.
APPENDIX 2

Handling Technical Information in an Abstract

The following hints on how to handle certain technical information in an abstract are in no way comprehensive or inclusive. There are hints on how to use technical information throughout the section on abstracting in the ERIC Processing Manual. In addition, it is useful to read several abstracts in RIE to see how others incorporate technical information.

Technical Information

Since there is a variety of opinion among Clearinghouses about using technical language in an abstract, you need to check with your Clearinghouse supervisor about how to handle it. Although a few Clearinghouses avoid using technical language or jargon in an abstract, the majority believe that the language and terminology of the document should be reflected in the abstract to let the reader know the technicality and complexity of the document. Furthermore, when the technical language is used in the abstract, users doing full-text searches will be able to retrieve the abstract. Nevertheless, it seems helpful to less sophisticated readers of the abstract if
the technical language is defined after it is used. The reader should be able to understand the abstract. The searcher needs to know what the document is about. This may be accomplished in a number of ways, for example, by using the word and defining its usage in parentheses. Two sample ways for handling definitions are shown below.

Sample #1

The report offers practical suggestions for designing and implementing polycultural programs. Polycultural education is defined as experiences provided by the school which enable students to appreciate their own and other people's ethnocultural dimensions. Polycultural education deals with broader cultural considerations...

Sample #2

Attention was measured using a feedback procedure, which measured the presence or absence of alpha rhythms in the subject's brain during presentation of slides. (An alpha rhythm reflects a relaxed mental state; the backlog or absence of alpha is interpreted as attention.)

Names of Tests, Curriculum Projects, and Court Cases

If the document discusses such items as a test, project or program, court cases, or bills, these should be mentioned in the abstract with a sentence or two of explanation.

For example:

Presenting testimony, these 1977 Senate Hearings dealt with S. 468, a bill designed to amend the Navajo Community College Act of 1971 to insure adequate funding for operation and expansion of the College on the Navajo Reservation, and S. 1215, designed to amend the Indian Self-Determination and Education Assistance Act of 1975...
Quotations

Since there can be no underlining in an abstract, quotation marks can be substituted in those cases in which underlining would be appropriate.

1. Official titles of books, journals, and articles:

These include Upton Sinclair’s “The Jungle” (1906) and Rachael Carson’s “Silent Spring” (1962).

2. Chapters within books and descriptions of several identified studies:

The five studies compile institutional research on the faculty of Harcum Junior College. "Perceptions of Effective Teachers" compares... "Bases for Deficiency Grades Assignments" reveals...

3. Emphasis on words:

Testimony centers on the legal problems derived from the definitions of "tribe."

Acronyms

Acronyms should be accompanied by an explanation of their meaning.

After the acronym has been spelled out, it is permissible to abbreviate it throughout the abstract.

Project "Attendance, Career Education" (ACE) is designed to... Major findings developed from a national, in-depth evaluation of the National Diffusion Network (NDN) are presented. Features of the NDN...

Parentheses

1. Can be used to define time limits:

This report presents staffing projections (1976-1982).
2. Around acronyms (NDN).

3. Parenthetical expressions to further explanation:

   It is concluded that even though the EOPs reach a limited number of students (particularly as compared with other compensatory education programs in the United States)...
APPENDIX 3

Helpful Hints

1. Make your sentences bristle with information.

2. In an informative abstract, an indicative last sentence is nice but an indicative first sentence is nasty.

3. Don't start a sentence with a verb in the passive voice.

4. The Processing Manual says not to repeat the title of a document in the abstract (of course some words of the title will appear in the topic sentence). Don't repeat any other information from the cataloging either, especially not names, places, or dates of conferences or names of sponsoring agencies.

5. Never do this: "This document presents the findings of a study conducted in order to determine..."

6. Never use a geographical place name in the identifier field unless it meets the test of an indexable concept.

7. On the Pulitzer Prize: Keep in mind that no one reads ERIC abstracts for their literary merit but other ERIC abstractors, and of course your supervisor. Your supervisor is watching the clock. Sacrifice beauty to productivity. (As regards other ERIC abstractors, it is a case of glass houses.)

8. Never index directly from the Rotated Display. Full meanings of terms can only be determined by using the main Alphabetical Display with its cross-references and scope notes.
9. If a descriptor lacks a scope note, it can be tested by verifying the logic of the concept's place in the vertical hierarchy to which the descriptor belongs, and by verifying the consistency of the concept's relationships with the descriptor's RTs.

10. Major a leveling term when it is a primary subject concept in the document.

11. Don't let yourself get into the habit of indexing primarily with the descriptors you already know about. Keep enlarging your knowledge of the Thesaurus by scanning the Rotated Display every month or so. Also, add to your Thesaurus Working Copy, and review the contents of, all Thesaurus supplements received from the ERIC Facility.

12. Don't end an otherwise complete abstract with "Conclusions and recommendations are included." Sacrifice elsewhere and give the user an idea of the author's punch line.
APPENDIX 4

On Lists—Numbered and Unnumbered

1. Lists are economical because they eliminate the need for transition words.

2. Lists allow you to begin sentences with numbers, e.g. "Findings indicated: 34% planned to continue their education beyond high school; 23% aspired to professional occupations, 16% to technical occupations, 37% to skilled or service occupations; and 24% expected to be unemployed. The majority of respondents felt...."

3. Numbers in lists are useful for guiding the eye of the reader when the individual items in the lists are lengthy, especially if they contain several clauses.

4. Lists are overused because they are an easy way out.

5. Never number a list unless you have three or more items.

6. A numbered list with over ten items doesn't guide anything.

7. If most of your abstract is one long list, perhaps you should restructure and synthesize the material into separate sentences.

8. A simple sequence of items needs only to be separated by commas. Semicolons are necessary only when commas appear within an item in the list. Numbers are necessary only to help guide the reader when items are lengthy or of very uneven length.

9. Never use more than one numbered list in an abstract.
APPENDIX 5

ERIC Tools for Abstracting/Indexing

ERIC PROCESSING MANUAL, particularly Sections 6 and 7 (but also Section 8)

Section 6: Abstracting/Annotating

Section 7: Indexing

Section 8 (Part 1): Vocabulary--Descriptors.

Section 8 (Part 2): Vocabulary--Identifiers.

Learn 'em.

THESAURUS OF ERIC DESCRIPTORS Working Copy

Issued at least annually, it includes:

(1) Alphabetical Display

- Mandatory list of educational level descriptors.
- Display of scope notes and all other USE, UF, BT, NT, and RT usages.
- Date each descriptor entered Thesaurus.
- Postings to date of publication.
- Descriptor group codes.

This is the Thesaurus display to use when performing actual indexing.

(2) Rotated Display

Provides a permuted alphabetical index to all words in the Thesaurus
(including Used For terms).

Useful for determining all usages of a particular word in the Thesaurus, without respect to its position in a phrase or multiword descriptor. One should not index directly from the Rotated Display but should pursue the terms to the Alphabetical Display with its complete record for every descriptor (including scope notes).
(3) Hierarchical Display

Provides complete, two-way visibility of the broader-narrower relationships of all main (indexable) terms in the Thesaurus. Each generic tree of descriptor families is carried to its farthest extreme in both directions.

Helpful in determining the available levels of terms in order to most nearly index to the specificity of the document. Like with the Rotated Display, one should not index directly from the Hierarchical Display but should consult the Alphabetical Display with its scope notes and complete cross-references.

SUPPLEMENTS TO THE WORKING COPY OF THE THESAURUS

Issued periodically (usually monthly) to update the working Thesaurus, including not only new descriptors but also actions taken on existing terms (such as addition of scope notes, deletion of terms, addition of Used For terms, etc.).

VOCABULARY STATUS REPORT

Appearing monthly in the ERIC Administrative Bulletin, this report lists candidate descriptors and changes requested for existing terms. Indexers may begin using any new or revised term that is shown as implemented in this report.

IDENTIFIER AUTHORITY LIST (Alphabetical Display)

Issued twice annually. Provides a guide to usage of existing identifiers and provides prototypes for use of new identifiers.

IDENTIFIER AUTHORITY LIST (Category Display)

Issued annually. Lists identifiers by 20 categories, e.g., geographic locations, organizations/institutions, laws/legislation, personal names. Useful for subdividing the identifier file for particular indexing and searching purposes.

PUBLISHED EDITION OF THE THESAURUS

Helpful in giving the novice an overview of the Thesaurus and its derivatives. One should not index from the published edition, however, since it is out of date by the time it is printed. Only the Working Copy Thesaurus should be used for indexing.
The published Thesaurus contains one display that the Working Copy doesn't have. This is the Descriptor Group Display which provides a system of broad categories into which all descriptors are grouped. Descriptor Groups provide:

- Easy initial access to the Thesaurus, allowing indexers to narrow considerably the number of individual descriptors to be looked at for particular applications.

- A way to show the novice how the basic scope terms of a Clearinghouse fit into the overall Thesaurus.

- A more specific look at the terms used within Clearinghouse scope areas, giving a "feel" for the breadth of terms available.

ERIC CLEARINGHOUSE SCOPE OF INTEREST GUIDE (WITH INDEX)

The Guide provides the scope of interest for each Clearinghouse as well as lists of commonly used terms for each Clearinghouse. We do have overlap documents, and terms should be selected that represent usage preferred by other Clearinghouses.
APPENDIX 6

Sample Forms for Abstracting, Indexing, and Training

The following pages contain:

(1) Abstracting Worksheet

(2) Indexing Worksheets
   a. Workbook Version
   b. Alternative Version

(3) Dual checklist for Trainees and Editors (developed by CG Clearinghouse)
## INDEXING WORKSHEET

<table>
<thead>
<tr>
<th>CONCEPTS</th>
<th>MAJOR</th>
<th>MINOR</th>
<th>JUSTIFICATION</th>
<th>TOO BROAD/OFF-TARGET</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>175</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Dual Checklist for Trainees and Editors

#### RIE DOCUMENT CHECKLIST

<table>
<thead>
<tr>
<th>Descriptors:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Document type (not starred)</td>
<td></td>
</tr>
<tr>
<td>Education level (if applicable)</td>
<td></td>
</tr>
<tr>
<td>Population (if applicable)</td>
<td></td>
</tr>
<tr>
<td>Maximum of six majors</td>
<td></td>
</tr>
<tr>
<td>Narrowest appropriate terms used</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Identifiers:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum of two majors</td>
<td></td>
</tr>
<tr>
<td>Correct form (where available)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Abstract Type:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Informative</td>
<td></td>
</tr>
<tr>
<td>Indicative</td>
<td></td>
</tr>
<tr>
<td>Mixed</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Abstract Content:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary focus</td>
<td></td>
</tr>
<tr>
<td>Intended audience, if apparent</td>
<td></td>
</tr>
<tr>
<td>Intended use</td>
<td></td>
</tr>
<tr>
<td>Special features (population, methodology, instrumentation, etc.)</td>
<td></td>
</tr>
<tr>
<td>Results, outcomes, evaluation</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Abstract Form:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>100-200 words</td>
<td></td>
</tr>
<tr>
<td>Single paragraph</td>
<td></td>
</tr>
<tr>
<td>Numerals (one-nine; 10-00)</td>
<td></td>
</tr>
<tr>
<td>Numerals do not begin sentences</td>
<td></td>
</tr>
<tr>
<td>Numbered series—correct form</td>
<td></td>
</tr>
<tr>
<td>Maximum one numbered series per abstract</td>
<td></td>
</tr>
</tbody>
</table>
### APPENDIX 7

**Suggested Verbs for Abstracts/Annotations**

<table>
<thead>
<tr>
<th>Accents</th>
<th>Defines</th>
<th>Indicates</th>
<th>Reiterates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advocates</td>
<td>Delineates</td>
<td>Introduces</td>
<td>Relates</td>
</tr>
<tr>
<td>Analyzes</td>
<td>Demonstrates</td>
<td>Investigates</td>
<td>Replies</td>
</tr>
<tr>
<td>Annotates</td>
<td>Describes</td>
<td>Likens</td>
<td>Reports</td>
</tr>
<tr>
<td>Answers</td>
<td>Develops</td>
<td>Lists</td>
<td>Reveals</td>
</tr>
<tr>
<td>Appraises</td>
<td>Discusses</td>
<td>Looks</td>
<td>Reviews</td>
</tr>
<tr>
<td>Approaches</td>
<td>Divides</td>
<td>Makes</td>
<td>Samples</td>
</tr>
<tr>
<td>Argues</td>
<td>Elaborates</td>
<td>Notes</td>
<td>Screens</td>
</tr>
<tr>
<td>Arrives at</td>
<td>Emphasizes</td>
<td>Offers</td>
<td>Sees</td>
</tr>
<tr>
<td>Asks</td>
<td>Encourages</td>
<td>Outlines</td>
<td>Selects</td>
</tr>
<tr>
<td>Assesses</td>
<td>Enlightens</td>
<td>Points out</td>
<td>Shows</td>
</tr>
<tr>
<td>Cautions</td>
<td>Enumerates</td>
<td>Poses</td>
<td>States</td>
</tr>
<tr>
<td>Cites</td>
<td>Establishes</td>
<td>Presents</td>
<td>Stresses</td>
</tr>
<tr>
<td>Claims</td>
<td>Evaluates</td>
<td>Probes</td>
<td>Studies</td>
</tr>
<tr>
<td>Clarifies</td>
<td>Examines</td>
<td>Proceeds</td>
<td>Suggests</td>
</tr>
<tr>
<td>Classifies</td>
<td>Explains</td>
<td>Proposes</td>
<td>Summarizes</td>
</tr>
<tr>
<td>Compares</td>
<td>Explores</td>
<td>Provides</td>
<td>Supports</td>
</tr>
<tr>
<td>Concentrates</td>
<td>Finds</td>
<td>Questions</td>
<td>Surveys</td>
</tr>
<tr>
<td>Considers</td>
<td>Follows</td>
<td>Recognizes</td>
<td>Touches</td>
</tr>
<tr>
<td>Contrasts</td>
<td>Generates</td>
<td>Recommends</td>
<td>Traces</td>
</tr>
<tr>
<td>Concludes</td>
<td>Gives</td>
<td>Records</td>
<td>Urges</td>
</tr>
<tr>
<td>Covers</td>
<td>Hypothesizes</td>
<td>Recounts</td>
<td>Uses</td>
</tr>
<tr>
<td>Criticizes</td>
<td>Identifies</td>
<td>Reexamines</td>
<td>Views</td>
</tr>
<tr>
<td>Deals with</td>
<td>Illustrates</td>
<td>Refutes</td>
<td>Warns</td>
</tr>
</tbody>
</table>
APPENDIX 8

Other Suggestions for Word Selection

The following lists were extracted from Author's Guide for Technical Reporting.¹

Say What You Mean. Here is a sampling of the kinds of words that are often misused. The only cure is use of a good dictionary.

<table>
<thead>
<tr>
<th>Do You Mean This?</th>
<th>Or This?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basically</td>
<td>Essentially</td>
</tr>
<tr>
<td>Occur</td>
<td>Transpire</td>
</tr>
<tr>
<td>Infer</td>
<td>Imply</td>
</tr>
<tr>
<td>Filter</td>
<td>Filtrate</td>
</tr>
<tr>
<td>Oral</td>
<td>Verbal</td>
</tr>
<tr>
<td>Capacity</td>
<td>Ability</td>
</tr>
<tr>
<td>Among</td>
<td>Between</td>
</tr>
<tr>
<td>Degenerate</td>
<td>Deteriorate</td>
</tr>
<tr>
<td>Percent</td>
<td>Percentage</td>
</tr>
<tr>
<td>Proportion</td>
<td>Part</td>
</tr>
<tr>
<td>Balance</td>
<td>Remainder</td>
</tr>
<tr>
<td>Adjacent</td>
<td>Contiguous</td>
</tr>
<tr>
<td>Insure</td>
<td>Assure</td>
</tr>
<tr>
<td>Choice</td>
<td>Alternative</td>
</tr>
<tr>
<td>Apparent</td>
<td>Evident</td>
</tr>
<tr>
<td>Presume</td>
<td>Assume</td>
</tr>
</tbody>
</table>

Avoid Trite Words and Phrases. Some correct words and phrases have been overworked by technical writers. They have become stock expressions, automatic cliches that have lost their effectiveness.

<table>
<thead>
<tr>
<th>Instead of This</th>
<th>Try This</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implement</td>
<td>Carry out</td>
</tr>
<tr>
<td>Utilize</td>
<td>Use</td>
</tr>
</tbody>
</table>

¹Author's Guide for Technical Reporting, Office of Aerospace Research, USAF, AD605443 (July 1964)
<table>
<thead>
<tr>
<th>Instead of This</th>
<th>Try This</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activate</td>
<td>Begin</td>
</tr>
<tr>
<td>Indicate</td>
<td>Show (point out)</td>
</tr>
<tr>
<td>Communicate</td>
<td>Write (tell)</td>
</tr>
<tr>
<td>Discontinue</td>
<td>Stop</td>
</tr>
<tr>
<td>Optimum</td>
<td>Best</td>
</tr>
<tr>
<td>On the order of</td>
<td>About</td>
</tr>
<tr>
<td>Maximum</td>
<td>Most (largest, greatest)</td>
</tr>
<tr>
<td>Demonstrate</td>
<td>Show</td>
</tr>
<tr>
<td>Endeavor</td>
<td>Try</td>
</tr>
<tr>
<td>Proliferate</td>
<td>Expand (enlarge, grow)</td>
</tr>
<tr>
<td>Vital</td>
<td>Important</td>
</tr>
<tr>
<td>Transmit</td>
<td>Send</td>
</tr>
<tr>
<td>Investigate</td>
<td>Study</td>
</tr>
<tr>
<td>Profile</td>
<td>Outline</td>
</tr>
<tr>
<td>Terminate</td>
<td>End (stop)</td>
</tr>
</tbody>
</table>

Save Words. The list below illustrates what we mean.

<table>
<thead>
<tr>
<th>Instead of This</th>
<th>Try This</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experience has indicated that</td>
<td>Learned</td>
</tr>
<tr>
<td>In spite of the fact that</td>
<td>Although</td>
</tr>
<tr>
<td>On the other hand</td>
<td>But</td>
</tr>
<tr>
<td>In the field of biology</td>
<td>In biology</td>
</tr>
<tr>
<td>In a situation in which</td>
<td>When</td>
</tr>
<tr>
<td>During the time that</td>
<td>While</td>
</tr>
<tr>
<td>Involve the necessity of</td>
<td>Require</td>
</tr>
<tr>
<td>Until such a time as</td>
<td>Until</td>
</tr>
<tr>
<td>Range all the way from</td>
<td>Range from</td>
</tr>
<tr>
<td>In the neighborhood of</td>
<td>About</td>
</tr>
<tr>
<td>In the event of</td>
<td>If</td>
</tr>
<tr>
<td>At the present time</td>
<td>Now</td>
</tr>
<tr>
<td>Feasible and practicable</td>
<td>Workable</td>
</tr>
<tr>
<td>Consensus of opinion</td>
<td>Consensus</td>
</tr>
<tr>
<td>In the event that</td>
<td>If</td>
</tr>
<tr>
<td>In order to</td>
<td>To</td>
</tr>
<tr>
<td>By means of</td>
<td>With (by)</td>
</tr>
<tr>
<td>For the purpose of</td>
<td>For</td>
</tr>
<tr>
<td>In the majority of instances</td>
<td>Usually</td>
</tr>
<tr>
<td>In a number of cases</td>
<td>Often</td>
</tr>
<tr>
<td>On a few occasions</td>
<td>Occasionally</td>
</tr>
<tr>
<td>Afford an opportunity</td>
<td>Allow</td>
</tr>
<tr>
<td>Are desirous of</td>
<td>Want to</td>
</tr>
<tr>
<td>In a manner similar to</td>
<td>Like</td>
</tr>
<tr>
<td>It is recommended that</td>
<td>We recommend that</td>
</tr>
<tr>
<td>consideration be given to</td>
<td>Selects</td>
</tr>
<tr>
<td>Is responsible for selecting</td>
<td>Does</td>
</tr>
<tr>
<td>Makes provisions for</td>
<td>Acts (does)</td>
</tr>
<tr>
<td>Takes appropriate measure</td>
<td></td>
</tr>
</tbody>
</table>
The following list was extracted from *A Style Manual for Technical Writers and Editors*. 1

Avoid Trite Words.

<table>
<thead>
<tr>
<th>Instead of This</th>
<th>Try This</th>
</tr>
</thead>
<tbody>
<tr>
<td>Make an adjustment in</td>
<td>Adjust</td>
</tr>
<tr>
<td>Due to the fact that</td>
<td>Because</td>
</tr>
<tr>
<td>Owing to the fact that</td>
<td>Because (since)</td>
</tr>
<tr>
<td>Despite the fact that</td>
<td>Although</td>
</tr>
<tr>
<td>On the basis of</td>
<td>Based on (by, from)</td>
</tr>
<tr>
<td>In recognition of this fact</td>
<td>Therefore</td>
</tr>
<tr>
<td>In large measure</td>
<td>Largely</td>
</tr>
<tr>
<td>Give consideration to</td>
<td>Consider</td>
</tr>
<tr>
<td>Prior to</td>
<td>Before</td>
</tr>
<tr>
<td>Subsequent</td>
<td>After</td>
</tr>
<tr>
<td>Throughout the entire</td>
<td>Throughout</td>
</tr>
<tr>
<td>Leaving out of consideration</td>
<td>Disregarding</td>
</tr>
<tr>
<td>The greatest percent</td>
<td>Most</td>
</tr>
<tr>
<td>Is such to negate the feasibility of</td>
<td>Precludes</td>
</tr>
<tr>
<td>Is essential that</td>
<td>Must</td>
</tr>
<tr>
<td>It appears that</td>
<td>Apparently</td>
</tr>
<tr>
<td>Circular in shape</td>
<td>Circular</td>
</tr>
<tr>
<td>To make an approximation as to how much</td>
<td>To estimate (to approximate)</td>
</tr>
</tbody>
</table>

The following list was extracted from *Guide for Air Force Writing*. 2

Use Transitions Between Ideas. Here is a list of words and phrases which may be used as transitional devices.

<table>
<thead>
<tr>
<th>To Do This</th>
<th>Try This</th>
</tr>
</thead>
<tbody>
<tr>
<td>To add some ideas</td>
<td>In addition, moreover, a second method, another way, besides, also</td>
</tr>
<tr>
<td>To contrast ideas</td>
<td>But, yet, nevertheless, however, still, in contrast, otherwise, on the other hand</td>
</tr>
<tr>
<td>To compare ideas</td>
<td>Like similar, just as</td>
</tr>
<tr>
<td>To show result</td>
<td>Therefore, as a result, consequently, thus</td>
</tr>
<tr>
<td>To show time</td>
<td>Then, a little later, immediately, meantime, afterwards, earlier, next</td>
</tr>
</tbody>
</table>

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