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ABSTRACT
        Materials intended to serve as the basis for a three
semester hour course in methods and materials of instruction in adult
basic education (ABE) are presented. The materials are designed for
several instructional approaches. They may be used
self-instructionally, either as independent units or as a collective
group of units. When the units are used in a self-instructional mode,
the instructor will serve largely to orient the students to the
materials, monitor student progress, and evaluate the students'
proficiency assessments. (For related documents, see AC 008 317, 318,
320-322.) (CK)

HEURISTICS OF
ADULT EDUCATION

Courses of Study for Professional Preparation
of Educators of Adults
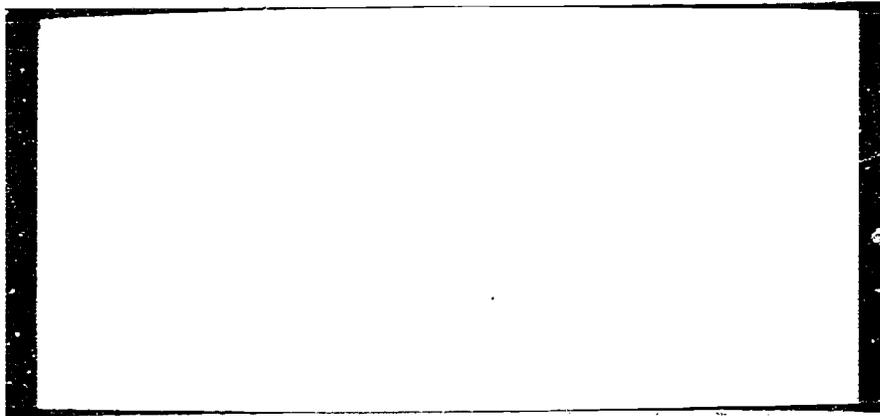
edited by Vincent J. Amanna

METHODS AND MATERIALS
IN ADULT BASIC EDUCATION

Harley K. Adamson

METHODS AND MATERIALS

IN

ADULT BASIC EDUCATION

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Weber State College

H E U R I S T I C S   O F

A D U L T   E D U C A T I O N

Courses of Study for the Professional Preparation
of Educators of Adults

PART I   SEMINAR IN ADULT BASIC EDUCATION

PART II   SOCIOLOGY OF IMPOVERISHED LIFE STYLES

PART III   PSYCHOLOGICAL IMPLICATIONS OF DEPRIVATION ON
                       ADULT LEARNERS

PART IV   ADULT TEACHING AND LEARNING

PART V   METHODS AND MATERIALS IN ADULT BASIC EDUCATION

PART VI   EVALUATION IN ADULT BASIC EDUCATION

FORWARD

> HEURISTICS: Serving to discover
> or reveal; applied to arguments
> and methods of demonstration which
> are persuasive rather than logi-
> cally compelling, or which lead a
> person to find out for himself.
> > Webster's New International
> > Dictionary of the English Language

The appropriateness of the title <u>Heuristics of Adult Education</u> for this series may not be apparent to the reader and we should, therefore, make clear our purposes in its preparation.

Adult education in the United States is experiencing an expansion that is to some considerable extent without precedent. The tremendous changes that followed World War II were largely manifest in increases in volume, achieving essentially the same objectives as those of the first half of this century, but with larger numbers of people. However, during the past decade a rather different adult clientele has emerged and its visibility has confronted the adult educator with questions about the adequacy of his preparation as a professional. The undereducated, economically impoverished adult has waited until only recently on the periphery of social institutions. Through the convergence of a number of related, fortunate circumstances, his plight has arisen as a prominent concern of the American educational exterprise. His social and cultural devience from the parent society has proven to be the dimension which presents the actual challenge to the adult educator and in its turn to the composition of his professional preparation. He finds that the alienation resulting from prolonged deprivation is highly resistant to amelioration through the more prosaic components of graduate study in adult education.

We are confronted with the dilemma of a double problem. On the one hand the adequacy of professional training for adult educators must be caused to accomodate the new clientele. This is not viewed at this point in time, nor in this particular project as a matter of finding substitutes for parts of the professional curriculum, but rather a concern

for enlarging competencies and understandings. On the other hand, however, there are few clear indicators of precisely what should be included; what cognitive and experiential learnings are most efficacious in relation to the objectives of graduate study.

Hence, the present project is viewed as heuristic; a clear and open invitation to everyone concerned about the competence of the professional educator of adults to discover and reveal the adequacies and shortcomings of this present effort at persuasion--a persuasion that we have discovered some guideposts in the evolution of a design for a portion of graduate study in adult education. But this is also an invitation to those who would discover where further pursuit of curriculum design for graduate study will lead, and then to share their findings with those of us who have had a part in the present project.

<div align="right">
Vincent J. Amanna
University of Colorado
June, 1970
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TABLE OF CONTENTS

INTRODUCTION

The materials which follow are intended to serve as the basis for a three semester hour course in methods and materials of instruction in adult basic education. The materials are designed for use with students who have no background in instructional methods and materials, but are adaptable to fit a variety of student needs.

The materials are designed for several instructional approaches. They may be used self-instructionally either as independent units or as a collective group of units. The units may also be used as the course outline for an instructor centered class, or the two approaches may be combined. The units as a group constitute a rather heavy instructional load for a three hour class. The instructor should feel free to use those units he considers appropriate to his class. Students may also be allowed to select units of interest for self-instruction.

When the units are used in a self-instructional mode the instructor will serve largely to orient the students to the materials, monitor student progress, and evaluate the students' proficiency assessments. The students should be able to identify what is expected of them in each unit. While they should be relatively free to select those experiences they consider necessary for their achievement of the objectives, considerable attention should be paid to the development of familiarity with

the curricular materials suggested in the materials units.
Students should have access to as many of the suggested materials
as possible during their study of the unit, since a broad know-
ledge of materials used in adult basic classes is essential to
success in the approach suggested for this course.

PLANNING FOR INSTRUCTION IN ADULT BASIC EDUCATION

Most experienced educators acknowledge the critical need for advanced planning if optimum success is to be achieved in the instructional process. Attempting to teach without planning has been compared to setting out on a cross-country trip without studying the route in advance. Planning for instruction in the area of adult basic education is perhaps even more critical than in other areas because of the nature of the learning experience which is involved.

Very rarely will we find a class of adult basic education students which can actually be taught as a group. It is most often necessary to attack the individual problems of each student independently because of differences in needs, ability, educational background, and general experience and interest. The limited remarks in this monograph have to do with the process of planning, rather than the actual procedure for individualized instruction, but other sources are identified in the self-instructional unit which should prove beneficial to a teacher who is concerned about the basic nature of individualized instruction.

Course of Study

The usual beginning place for lesson planning is with a course of study. This constitutes a general outline of instructional goals and procedures for students at a particular area of study. This might be developed by an individual teacher for his

subject, or might grow out of a system-wide planning process. Examples of the latter are the Curriculum Guide for Adult Basic Education from the Ypsilanti Public Schools, Ypsilanti, Michigan (available through ERIC as Ed 028 360); Adult Basic Education Program Curriculum Guide, Memphis City School System, Memphis, Tennessee (available through ERIC as Ed 027 465); or Adult Basic Education Teacher's Guide produced by Texas Adult Basic Education Workshop, University of Texas at Austin, Extension Teaching and Field Service Bureau (available through ERIC as Ed 030 830).

Whatever the source, any planning for instruction needs to begin with a basic outline. This outline might be done in substantial detail, as are those examples listed above, or it may be done on a much more limited basis resulting from the personal experience and study of the teacher and his knowledge of the students. It is suggested that such a guide include the fundamental elements which will be stressed later in this monograph: Expectations or Objectives, Learning Experiences, Assignments or Materials, and Evaluation Procedures.

The Instructional Outline

The instructional outline, or lesson plan, may take many forms, depending upon the way it is to be used. If it is to be used only by the teacher in the process of instruction it should quite probably be developed with a good deal of brevity, utilizing, for the most part, brief phrases, key words, and only the most

2.

11

necessary detail in outlining instructional procedures. Adding
extensive detail to an outline which will be used only by the
teacher results in little advantage when considered in relation
to the time which must be expended in such development.

The instructional outline may be used advantageously with
adult basic education students in individual instruction, as well
as in group instruction, however. This use may suggest a sub-
stantially more detailed form, since the student will be expected
to use it as his guide through much of the instructional experi-
ence. It is suggested that an instruction be developed coopera-
tively by the teacher and the student as a means of motivating
the student and giving him an insight into the process of his
instruction. Regardless of the context within which the instruc-
tional outline is to be used, there are several elements of
minimal content which should be included.

A major concern in the area of planning is always the
teacher who, since he has prepared a plan, feels he must follow
it exactly. When dealing with ABE students, there is danger of
inaccuracy in test results because of the students' orientation,
lack of basic skills, inexperience in test situations, or a
variety of other problems.

Once the teacher sees that his materials or activities are
inappropriate for his students, he must feel free to adapt to
the needs, interests, or abilities of the student or the group.
This may mean anything from a minor change in materials or

3.

activities within the instructional outline to complete abandon-
ment of the outline in favor of more appropriate materials or
approach. In this case, the less time expended in developing
the instructional outline, the more willing the teacher is
likely to be to depart from it when circumstances suggest such
a departure.

Instructional Objectives

Instructional objectives represent the teacher's expecta-
tions for those he teaches as a result of his teaching. If
learning does, in fact, represent changing behavior as has so
often been asserted, it seems only reasonable to state our ex-
pectations in terms of behavior. Instructional objectives might
then also be called behavioral objectives, or behavioral expecta-
tions.

Instructional objectives which are stated in terms of
student behavior have the advantage of being observable in the
student. This means that the teacher can, by means of his powers
as a professional observer, recognize the extent to which he has
succeeded in achieving his objectives.

An additional advantage in behaviorally stated objectives
is that they enable the student to know what the teacher expects,
and to assess his progress toward this expectation.

An example of a statement of instructional objectives
couched in behavioral terms would be, "At the end of this lesson
the student should have been able to complete Lessons 4, 5, and
6 in his arithmetic workbook with no more than four errors."

4.

13

Behaviorally stated objectives represent the logical first step in planning, since if we can foresee no way in which a particular lesson will have an observable effect on a student, especially in the basic skills areas taught in adult basic education, it is extremely difficult to justify teaching that lesson. Behaviors in the student which are expected to result from a given lesson should be considered before determining the approach or the precise lesson material which one would propose to teach. This approach, in fact, should result not in a covering of material, but in an uncovering of ideas and skills which are most useful to a student.

Learning Experiences

This section of the instructional outline represents the "how" of the lesson. The materials contained herein would logically take one of two forms. First, if the instructional outline is to be used only by the teacher, the learning experiences section of the outline should contain notes which the teacher will use in presenting lesson material. It should also include samples of material which the teacher proposes to use in the instructional activities of his class. Such material as films, tapes, or particular books or pictures might well be listed here.

The teacher's notes should probably not be thought of as lecture notes, or an outline of content material, but should rather be seen as key questions which would be asked or

fundamental concepts which the teacher proposes to teach. They might also include outlines of actual activities, such as organization of games, or reference to specific problems or content activity which the students will be asked to pursue.

Assignments which the students would be asked to complete should also be listed in the area of learning experiences. Care should be given to be sure that the assignment is stated in sufficiently specific terms that the students will understand what is expected. This provides the teacher with a source not only to use in presenting the assignment, but also to refer to at a later time in the event his assignment might need clarification.

Several points should be made with regard to assignments. Although, as a student almost everyone has experienced the frustration of a poor assignment, when we become teachers we persist in committing the same crime in giving assignments to our students. Therefore, we should consider a few points regarding the making of assignments.

The assignment must have recognizable meaning for the student. This is especially true for Adult Basic Education students, but it is often easy to obtain by use of specific interests generated by the life style of the student.

Many assignments ask the student to repeat a series of similar actions, such as answering textbook questions or doing large numbers of mechanical problems. This kind of assignment

6.

is particularly difficult to justify when the student does not
understand why he is asked to make these repetitions. The
assignment of "the next twelve pages in the text" is equally dif-
ficult to justify, both to the student and to the informed teacher,
since reading these pages with no ultimate purpose or plan will
most often result in relatively little benefit. The reading assign-
ment should include questions or particular points of interest to
which the student should be alerted. Relatively few textbooks,
it should be noted, include questions of quality at the end of
the chapter, since these questions cannot be adapted to the
interest or ability level of a particular class. Perhaps the
only assignment which would seem more reprehensible than "read
the next twelve pages in the textbook", would be, "read the next
twelve pages in the textbook and answer the questions at the end
of the chapter."

Very real care should be taken by the teacher to make his
assignment clearly understood. If the assignment is one of
particular significance, such as a term paper assignment, it
would be most appropriate to make this assignment in written
form to be duplicated and distributed to the class. This written
form should include a statement of the assignment in evaluating
the student's progress, and such ground rules as format, length,
and standards for the evaluation of the assignment.

Students in intermediate and higher levels of Adult Basic
Education can benefit from experience in taking dictation from a
teacher. However, if an assignment is to be given by dictation,

7.

16

the teacher should plan to allow a significant block of time in which the assignment is to be given and repeat it at least once, since some students will be more adept at taking dictation than others.

In planning an assignment, the teacher should use care that the assignment is appropriate to the class in, for example, the vocabulary of the reading assignment, the intellectual demands that the assignment will make on the class, or the readiness of the class for the material of the assignment. As a rule, only reading assignments will be given in anticipation of class activity Most other assignments would follow class activity, either in extending that activity by elaboration upon specific points, examination of questions which were raised in class activity, or practicing of skills which have been introduced in the class activity.

In a lesson plan which is intended for use by the teacher in presenting class materials, it is also desirable that a summary statement be inserted at the end of the section of learning experiences. This statement has the desirable effect of tying the lesson into some useable whole, coordinating with lessons past, looking forward to lessons to come, but especially of summarizing to the point where the student can have an idea to take from the class. Adult Basic Education students, just as much as elementary or secondary students, need to be able to say, "This is what I learned in school today." The summary statement, either in the

form of a question which draws summary from the class, or a statement by the teacher of generalization regarding the class study for that day, can serve this purpose.

Evaluation

Each instructional outline needs to contain some idea from the outset regarding the means by which the teacher will expect the students to demonstrate their grasp of the lesson skills which have been taught and their proficiency in dealing with the state objectives. In instructional outlines to be used by the teacher in group instruction, it is less necessary to detail the means of evaluation than it is in preparing an instructional outline which will be used by the student as his guide. The form used in the self instructional unit, of which this monograph is part, may provide the best example of the way in which this section of the instructional outline might be handled for student use.

Summary

The need for advanced planning for instruction is patently obvious, whether one is teaching in Adult Basic Education or at any other level, but planning must be supplemented with a large repertoire of skills and materials which the teacher has available on demand to fit needs or situations which develop in his class. New teachers, or those teaching in an area which is new to them, have the obligation to study widely to develop such a

9.

repertoire that they can turn to appropriate sources or activities to fit specific problems or opportunities as they arise.

The problem becomes one of preparing instructional plans which are useful and workable without expending more energy than can be spared in this planning. Two courses of action can be useful in overcoming this problem: (1) Work from an outline form whenever possible. This would include the course of study if it is prepared locally, and the instructional outline itself, especially when it is to be used by the teacher in group instruction. Brevity in planning when the instructional outline is to be used by the student as a guide in his study, must take into account the limitations of vocabulary and reading comprehension, but should still be held to a minimum. (2) The instructional outline should not be thought of as a daily lesson plan, since it is extremely difficult to coordinate learning activities accurately when broken into individual class period segments. The instructional outline should instead be based on the meaningful segment of work which would encompass as much as four or five class periods. Events of the student's daily life can provide the bridge between classes, if the class work is oriented to real life issues. This procedure makes it possible to do advanced planning for a somewhat longer period of time than a single class meeting, with time spent then only in updating the plan to accommodate events of class periods. This can be done by spending a minimum of time immediately upon the termination of the class meeting.

10.

Teachers should bear in mind that however brief the plan,
it is better than no plan at all, and if we err in the direction
of excessive brevity, we at least have a beginning on which to
build a class and a minimal record of what has been attempted.

Additional sources of Interest

Jahns, Irwin R. and Henry G. Brady, Jr. (eds.), The Adult Basic
    Education Curriculum and Its Development, Florida State
    University, 1968 (Available through ERIC as ED 021 203)
    The following selections: pp. 68-69, pp. 79-88, pp. 105-
    116, and pp. 123-130

Tennessee State Board of Vocational Education, Basic Remedial
    Education, Handbook for MDT Instructors, (The Board) Nash-
    ville, 1968. (Available through ERIC as ED 026 562)

Boone, Edgar J. and Emily H. Quinn, Curriculum Development In
    Adult Basic Education, Chicago: Follett, 1967

Tuskegee Institute, Demonstrational Features of the Tuskegee
    Institute Retraining Project, Volume I (The Institute)
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Getzels, Jacob, Learning Theory and Classroom Practice in
    Adult Education, Syracuse, New York: University College
    of Syracuse, 1956

Watson, Goodwin, "What Do We Know About Learning" in Revolution
    In Teaching: New Theory, Technology and Curriculum,
    Alfred DeGrazia and David A. Sohn (Eds.), New York:
    Bantam Books, 1964

Pophorn, W. James and Eva L. Baker, Establishing Instructional
    Goals, Englewood Cliffs: Prentice Hall, 1970

Planning an Instructional Sequence, Englewood Cliffe: Prentice
    Hall, 1970

Systematic Instruction, Englewood Cliffs: Prentice Hall,
    1970

12.

Planning and Presenting Lesson Materials

Behavioral Objective: At the end of this unit the student should be
able to show that he:

1. Can apply the principles required in developing behavioral
objectives by writing five objectives in at least two areas
of adult basic education. Those objectives should include
indication of the behavior sought, the observable act of the
learner, and the standard of performance.

2. Understands the need to have the learner participate in de-
termining objectives by listing three advantages to be gained by
this process.

3. Can apply the minimum standard for planning by completing a
plan, for a student or class, of his own selection. The plan
should include: concept statement, behavioral objectives,
learning activities, and assignments and evaluation proced-
ures where appropriate.

4. Can apply the basic elements of instruction by preparing and
teaching a lesson which is concrete, conceptual, conversational,
and contemporary.

Learning Experiences

1. Read the monograph on Planning Lesson Materials which is at-
tached. Enclosure #1

3. Read Alexander and Hines, <u>Independent Study in Secondary</u>
    <u>Schools</u> (New York, Holt, Rinehart & Winston, 1967) pp 1-4
    and 12-17. This reading should provide insight into the
    basic reasons for involving the learner in planning. You may
    choose to read one or more of the following as a supplement to
    Alexander and Hines, or in the event that source is unavailable:

    Jahns and Brad, <u>The Adult Basic Education Curriculum and Its</u>
    <u>Development</u> (Florida State Univ., 1968. Available through ERIC
    as Ed 01 203) pp 62-64.

    Mocker and Veri, <u>The University of Missouri Adult Basic Edu-</u>
    <u>cation System</u> (Missouri University Extension Division, St.
        1969. Available through ERIC as Ed 030 048) pp 20-24.
    This source includes an extensive listing of materials in
    various subject areas (pp 25-94).

4. Read the monograph on the "Four C's of Teaching" which is
    attached. Enclosure #2

5. Write a teaching outline for use with an individual student or
    with a group of students, including within the outline a state-
    ment of concepts to be learned, behavioral objectives, the
    learning activities to be pursued to accomplish the objectives,
    and specific assignments which would be included. In some cases
    you may wish also to include the evaluation procedures which
    you would use to determine the accomplishment of the objectives.
    Take the outline to your instructor for discussion and evaluation.

6. Demonstrate, through a peer teaching experience, the conduct
    of developing an individual instructional outline and the pro-
    cess of presenting this material to an individual, or a group
    of students.

    The students should be prepared to critique the process and
    the instructional plan at the termination of the peer teaching
    experience.

Self Assessment

Write an evaluation of your performance and development of an in-
structional plan, and in the presentation of the elements of this plan
to students.

Your evaluation should touch each of the behavioral objectives and
the degree to which you have accomplsihed that objective.

Take the evaluation to your instructor at the time of the proficiency
assessment.

Proficiency Assessment

Arrange to meet with your instructor for the purpose of evaluating
your competence on the behavioral objectives set forth at the begin-
ning of this self-instructional unit.

You should be particularly prepared to do one or more of the following:

1. Role play with your instructor the process of establishing an
    instructional plan for an individual student.

2. Demonstrate a presentation of instructional materials to a
    group of students by role playing this incident with your
    instructor.

3. Present your performance in one or both of the situations noted
   in one and two above, by means of an audio or video tape of
   these activities.

THE FOUR C'S OF TEACHING

The process of teaching, like all processes which require interaction among human beings, is far too complex to be reduced to simple terms, or to be so dissected as to identify all of its component parts. Neither is it possible to reduce teaching to a list of "do's and don'ts" or to a bag of tricks which may be applied when appropriate situations arise. It would take an infinite number of tricks to accommodate the infinite number of differences that we find among teachers and students, among classrooms, and in day-to-day situations.

It is possible, however, to identify some of those things which go to make up good teaching. We have been able to break these down into four general areas which encompass much of what we might call the technical skill of teaching. We have classified these as the "Four C's" of teaching. We might well say that the successful lesson is conceptual, concrete, conversational, and contemporary. These are the "Four C's".

While these do not represent some kind of magic formula for success in teaching, they do provide the teacher with several valuable guides in evaluating his preparation and presentation of lesson material: (1) The "Four C's" constitute reasonably objective criteria for measurement of teaching performance which are readily observable by the teacher himself. Although the concreteness of a lesson, for example, may vary widely in its effectiveness, it is about as difficult for a lesson to be partly concrete as it is for Mrs. Rabbit to be partly pregnant. (2) The criteria for teaching performance reflected in the "Four C's" are equally applicable to instruction in the familiar classroom setting or in almost any variation of the instructional process. A lesson which tries to teach a long list of unrelated ideas, rather than a single basic concept, is likely to have tough sledding whether it is attempted in a traditional classroom or in the most liberal independent study curriculum. (3) Consideration of these four elements of instruction during the preparation of a lesson contributes to the development of a well rounded learning experience.

While it would be a gross over-simplification to suggest that these four points represent all that there is to teaching, we can quite safely recognize that these are foundation stones upon which good teaching is built. Let's look at each one.

17.

Conceptual

A common problem with teachers, both new and old, is that we try to teach too much. The temptation is very strong to say "far too much."

The teacher who can reduce the content of his entire lesson down to a basic idea which is of a size and shape that a student can fit it readily into his "intellectual pocket" is far more likely to find that students take something from his class than is the teacher who leaves his students somewhere under an Everest of knowledge, however valuable. Probably one of the quickest ways to discourage adult basic students, since it reminds them of earlier school discouragements associated with an excessive load of irrelevant material.

This does not mean that the finest teacher's lesson consists of a single statement to be repeated at regular intervals for fifty minutes, or that there will be "less" taught in his class. It does mean that the focus of a lesson needs to be on the student's grasp of an idea rather than upon his recording of a number of ideas in his notebook. "Introduction" to an unlimited number of ideas without any provision for retention, application, or real assimilation into the life stream of the student can hardly be called teaching.

This suggests that a strong lesson will be built around a single, general point with sub-concepts to support the major concept which is to be taught in the lesson. We might define a concept as a concise statement which can be recognized as the general principle regarding a segment of content. It should be phrased in the student's vocabulary and should be of such limited magnitude that it could correspond to a statement or observation by the student. We might expect that the successful lesson would enable the student to go from the classroom with the concept in his intellectual possession. Now, by intellectual possession we mean not only that he can restate the concept in general terms, but that he will be able to apply it in a variety of situations. The concept should not deal exclusively with factual data, but must have a practical application. Some sample concepts are:

Mathematics: A number line is similar to a thermometer: positive numbers corresponding to degrees above zero, negative numbers to degrees below zero.

History: The present reaction against American involvement in Viet Nam is not something new. Similar reaction was expressed by the American public against involvement in World War I, against the Spanish-American War, even by a substantial segment of the population in opposition to the Revolutionary War.

Literature: An author may choose any of his characters
as his spokesman, but in most serious writing
we will find someone who represents the author.

Science: Evolution is a continuous process of change
for survival, as can be shown by examples of
the peppered moth and the pheasant.

Notice that in each case the statement of the concept involves
an attempt to relate the elements of the subject to the experience
of the student, so that what he is learning does not represent
something obtained in isolation. If nothing else, the conceptual
approach should provide the student with an answer for the age-old
question, "what did you learn in school today?"

Concrete

This represents probably the easiest of the "Four C's" to
apply, since it utilizes a very natural orientation toward teach-
ing. By supplying the student with some kind of concrete point
of reference throughout the lesson, the teacher gains a number of
advantages. The first of these is attending behavior: If we can
focus the student's attention upon a demonstration, upon a parti-
cular example, or upon some relevant object, we obtain his atten-
tion. Further, by relating the lesson to some tangible example,
or other concrete element, the lesson obtains unity. Concreteness
may, in this way, be used to enhance conceptuality. Third, and
perhaps most important, we remove the requirement of dealing ex-
clusively with verbal symbols. The most abstract communication
device that we utilize is our words, and we consistently talk too
much. By relying less heavily upon our words, and more heavily
upon objects, or examples, we are able to move nearer the students'
level of interest.

Examples of devices utilized to develop concreteness include
pictures, films, models, or even stories. The use of cases or
incidents for discussion or role playing is a technique which has
grown in its use as a concrete device in recent years. Chalkboard
diagrams or similar illustrative devices would also fall into this
category. However, the technique of writing an occasional word
on the chalkboard is simply an evasion, still resting upon the
verbal symbol.

With the great wealth of films, tapes, and other audio visual
devices which has become available in recent years, the temptation
to rely upon these to provide concreteness in a lesson is great.
Their value in this area should not be underestimated, but much
simpler devices which the teacher can supply with little expense
or difficulty are often equally effective. An example of the use
of a simple device to illustrate a complex principle is the teacher
who used a block of ice and a piece of copper wire pulled across it
to teach the principle of glacial movement.

Contemporary

Two critical aspects of the learning process are embodied in the contemporary side of teaching. In spite of their importance, these may be the most neglected of the "Four C's." The principal reason for this neglect is the difficulty of making even a single lesson contemporary.

The first step in making a lesson contemporary is that of fitting the content and activity of the lesson to the interest and ability level of the class. A lesson on long division could hardly be taught with any success to a class that has not mastered the multiplication tables. Similar cautions would apply to the vocabulary, reading level, or prerequisite study experiences of students. It may be just as detrimental to pitch a lesson on a level below the students as at too high a level. Adult basic students are not children preparing to go into the world. They are already very much in the world, and lesson material intended for children is often ineffective for this very reason.

This first adjustment to the contemporary is largely a matter of planning and adapting the lesson material to the point of the student's readiness at the time of the lesson presentation. In the event that the lesson planned exceeds the readiness of the class, it may be necessary for the teacher to step backward and provide the student with experiences which will make him ready to study the materials initially planned.

The second element of the contemporary may be even more crucial than the first, since it is the condition upon which much of the success and satisfaction students find in school is based. The most successful teacher of any subject is the one who is able to make the students see applications of that subject within their own lives. The student who can see that the skills he is obtaining through his studies in the class are something that can be utilized outside the classroom will not only progress more rapidly through material, but will tend to retain that which he has learned to a much higher degree. Contrast this, if you will, with the student who feels he is studying simply for the test which will come as the terminal experience in his study of a given segment of material. He feels no responsibility to retain the material he has studied beyond the examination date and is often quite success-ful in erasing most of such knowledge from his mind very shortly thereafter. This, of course, is a most critical factor in adult basic education, and provides an excellent source of instructional materials in many cases.

If we recognize that the central purpose of education is the preparation of students for life outside of school, then it be-comes very logical that our approach to whatever subject is taught will be governed by this rule of applicability. It would be foolish

to argue that it is easy to show application for every subject in the life of a student. On the other hand, it seems extremely difficult to justify spending important time teaching those things which have no apparent use outside of the classroom.

An example of this might be the experience that many adult basic education students have had in job hunting. Employment application forms can be used as exercises in improving handwriting. Simulated job interviews can serve as practice in oral communications skills. Evaluation of employment qualifications can be used as a guide in establishing goals for individual students. These activities can have real meaning for students who have experienced frustration in job seeking, while typical public school students might see them only as a pleasant game.

An awareness of the need for a contemporary orientation is evident in the direction taken by many adult basic education programs in social studies. While many secondary schools cling to the traditional approach to history and government, most adult basic education programs consider the relationshp of the student and his environment to a much greater extent.

Thus, the contemporary scene must be a consideration both in planning the approach to the student and his ability, and in planning the development of subject materials to be utilized. The poet John Chiardi has said, "We must take the student from where he is at to where he ain't." The consideration of subject matter which is totally devoid of concern for where the student is "at" has little likelihood of moving him to someplace where he "ain't."

Conversational

The "C's" we have considered thus far have dealt largely with the development of the lesson. The fourth "C", conversational, moves into a distinctly different realm, and while it is essential to consider this factor in preparation of the lesson, it becomes much more distinctly an element of the lesson presentation than the previous factors.

The element of teaching which is most difficult for many teachers to develop is that of a conversational atmosphere within the classroom. This means that there is an exchange between student and teacher, rather than simply a one-sided presentation by the teacher. The teacher can receive, as well as send messages. It also means the creation of a feeling within the students of their freedom to communicate: expressing not only their questions or misunderstandings, but also exchanging ideas freely. This kind of communication probably represents the highest type of learning experience, because it tends to break down the artificial barriers which often exist between a teacher and his class. It should, therefore, be cultivated whenever possible. This atmosphere is created by a continuing feeling of freedom on the part of the

students.   Although this should not be taken to suggest that all class activities should be "class discussions", the initial steps in creating this atmosphere are the responsibility of the teacher as he orients the class toward conversational activity.   Techniques involved rely heavily, of course, upon the subject content, but questioning devices play a key role.

In Adult Basic Education programs an ideal communications structure has most of the questions originating with the students. There are several factors in most ABE classes which tend to inhibit the development of such a system, however.   Students are often reluctant to ask questions becuase they fear failure, and often have very sharp memories of earlier school incidents which were demeaning to them.   Questions are also difficult to elicit from ABE students at the beginning of their experience in it for the simple reason that they are in an unfamiliar situation.   The ABE teacher will often need to set the stage for a conversational atmosphere by building much of his interaction with students or the class around questions.   Much the same process can be used whether dealing with individual students or with students in groups.

Three elements are important in the use of questions to develop a conversational atmosphere: First, the nature of the question itself.   Second, the way in which the question is asked; and third, the teacher's reaction to the student's response to the question.   Few new teachers are able to rely upon their wits to supply them with good questions to ask in class.   It becomes necessary then that they prepare questions in advance.   Such questions should be planned as keys to discussion or other class activities.   They might well be called "seed" questions, since considerable class activity could be expected to grow from the use of a single item.   In some subjects, questions which do not have a single correct answer serve well as seeds for class activity.   Questions which require some analysis, or where the process used to arrive at the correct answer is significant, can be used in other subject areas.   Questions such as those illustrated below are generally classified as "higher order" questions.

An example from a class in communications skills: "Why is it necessary to use complete sentences in written messages when we don't in spoken communication?"

This question from a history lesson might illustrate a second questioning technique.   "Class, I would like you to react to this statement...'If the United Nations had existed in 1776, the United States would not exist as a free, independent nation today.' Experiences resulting from such a statement should be obvious.

A third example, posing a problem, might be illustrated by this technique from science: "Suppose you were asked to pass on the desirability of a particular location for settlement or colonization. What three questions would you want to ask before you made your decision?"

Development of each of the three techniques illustrated above would rely heavily upon one of the simplest questioning devices available to teachers, but one which is often utilized too rarely. That device---one word ---"Why?" Remember to use it from time to time in your teaching, but be careful that it is used in such a way that students do not perceive it as "putting them on the spot."

Another questioning technique is termed the inquiry method. This method might be illustrated thus: The teacher initiates the operation by instructing his class that he will answer any questions they ask about the problem posed, so long as they can be answered yes or no. He then places two glasses of clear liquid on the desk and into each glass drops an ice cube. The ice cube sinks to the bottom in one glass and floats in the other. After asking members of the class to describe what they have seen, the teacher is ready to accept the questions of the class. This process may lead from the identification of the two liquids to the characteristics which cause the reaction observed.

The way in which a question is asked is certainly not equivalent to the nature of the question from the intellectual standpoint, but it is significant, nonetheless, in view of the influence it has upon the kind of answer thus obtained. Questions should be consistently asked in the following manner. First the question, stated clearly and concisely; then a pause, then, when used with a class group, identification of the student from whom the answer is desired.

Let's analyze these steps: The reason for a clear concise statement of the question is obvious. It is unreasonable to expect someone to answer a question he doesn't hear or understand. Then a pause. This pause is a significant part of the questioning process. You have asked a question. Hopefully, it is a question which is of such nature that it will require some thought before it is to be answered. If this is the case, then it is unreasonable to expect an immediate answer from anyone in the class. Most of us have experienced the momentary confusion that may come as a result of being nailed with an unexpected question. Those who have, know that it may require only a matter of a few seconds to recover, so a brief pause, (at least long enough to draw a deep breath), although it may seem an infinitely long time to the teacher, is quite necessary in order to obtain the kind of answer we might hope to have elicited by the question asked.

23.

The second step, when dealing with groups of students, is the identification of the student from whom the answer is desired. This means that a chorus of answers will not be accepted, but that one student initially will be made responsible for an answer. This contributes to good order in the classroom, but also increases the student's feeling of involvement because he then feels responsible to answer. The answer is his and his only. The identification of the student by name is equally important, since what more important word do we include in our vocabulary than our own name? "Hey, you!" has never been an adequate substitute for anybody's real name, as anyone who has gone by that name can readily testify. It is not necessary that the teacher call on a student who has volunteered. He should feel freedom to call on those who raise their hands or upon those who do not. If the teacher can build into his class the attitude that everyone should be ready to answer any question, and that the raised hand symbolizes some special contribution, class interaction will be a most productive process.

In connection with the method of asking questions, we encounter several other fairly common rules which need to be observed. First among these is to avoid the teacher's tendency to answer his own question. Before giving anyone else a chance many teachers respond to their own query. This is less likely to happen if the teacher is utilizing higher order questions of the kind illustrated than if he is using simple-answer questions; but it is an element to be avoided, since what good purpose do we serve by asking a question and then answering it? There will be more points to be made with regard to this in the discussion of teacher's response to a student's answer.

Two parallel points also to be avoided are: (1) a teacher's tendency to repeat his question and (2) repetition of the student's answer. The assertion that teachers commonly commit the two errors noted above is not intended to suggest that most teachers are somewhat simple-minded. In fact, it is quite natural to respond when a student asks that the questions be repeated. The teacher who consistently complies with this request is, however, detracting from the effectiveness of his questioning procedure. Many students, even the bright ones, find it easy to be thinking about a variety of things other than what is happening in class until the teacher calls o. them for an answer, especially if they can count on having the question repeated.

An even more surprising and purposeless phenomenon is the common tendency of teachers to repeat their own questions before any class response is received. Many teachers report that they do this unconsciously until it is called to their attention in an audio tape or video tape of their performance. This most probably occurs for one of two reasons, either the teacher fears his

24.

33

question has not been asked clearly and consequently feels an immediate need to rephrase or add to the question before it can be answered, or he simply is incapable of waiting passively during the "dead air" which occurs during the pause which has been indicated as an integral part of the questioning procedure.

The paramount problem in this practice is simply that this is an unnecessary expenditure of teacher energy. But second, this may create a serious distraction from students' thought processes during the interim between question and answer and may also create confusion as to just which question the student is being asked to answer. Since this practice is largely a nervous mannerism on the part of the teacher, it may be difficult to eliminate, but it should be avoided whenever possible.

The habit of the teacher's repeating the answer given by a student is somewhat similar to the one involved in repeating his own question. It could most often be classified as a kind of conditioned response, since many teachers will invariably respond to the student's answer in this particular pattern. There are a number of undesirable consequences of this action: (1) the student feels no obligation to give his answer loudly enough that it can be heard and understood by the other members of the class since he knows that the teacher will repeat his answer anyway. This results not only in a tendency for students to mumble their answers, but also causes students to feel a lack of commitment to their answers since they can be given in such a way as to be heard only by a small segment of their peers. (2) The student who can "turn off" his hearing aid, if you will, for the asking of a question has in effect freed himself to think about more pleasant things, even if only for an instant. Since he can count on the teacher to repeat whatever answer is given to any question that is asked, this allows him an extra moment to continue whatever special kind of meditation he is practicing. (3) It is extremely difficult to duplicate the phrasing of a student's answer when repeating. Difference in meaning may be given simply by changing the inflection. This means that the teacher may very well change the student's answer in repeating it. The result here is that the student becomes uncertain as to whether his answer to the question was correct. The answer becomes less his than it was initially, and he may actually find that he appears to have answered a different question from the one the teacher answered. (4) Perhaps most serious of all from the standpoint of the conversational atmosphere in the classroom is that the teacher's inclination to repeat the student's answer to each question creates the feeling that any answer which is to be sampled by the class must first be filtered through the teacher for his reaction. This tends to reduce, if not destroy, the possibility of interaction among students and revert to a situation where the entire classroom activity is focused upon the teacher.

25.

34

Finally, the teacher's reaction to responses by the class, both to his questions and other elements of class activity, is a significant factor in building a conversational atmosphere in the class. Many adult basic education students retain a "failure complex" from early school experiences. This often causes a reluctance to make themselves vulnerable to error or criticism by speaking out in class. The teacher's role in creating a conversational atmosphere in the face of such feelings is a difficult one. He must constantly reinforce not only the actual answer, but also the student's willingness to respond in class.

It is possible for a teacher to reinforce a student's behavior without saying a word. If the teacher will attend closely to what the student says, he can respond by nodding his head, or by a beckoning gesture with the hand to encourage the student. He may further reinforce, of course, by complimentary responses: "That's a good answer." "I like what you have to say." "That shows you've been giving some thought." These, of course, are desirable elements of teacher behavior in any circumstance, since we assume that the teacher will recognize the need of each individual to perceive worth in himself. Care should be taken to vary this response to avoid the loss of value associated with continual repetition of the same response. "Good!" isn't nearly as heart-warming the fifty-first time it is uttered during any given class period.

The teacher's response further adds reinforcement to the student's behavior if he carefully analyzes the student's answer before accepting or rejecting it. If the student has given a response which is incorrect, it is the teacher's obligation to clarify this to the class. However, clarification of the kind which simply says "that's wrong" may tend to inhibit student responses in the future. The student might fear being mistaken or hesitate making a response which we might classify as a free-wheeling kind of statement.

The teacher may correct gently by supplying possible alternatives, or by calling on someone else, but perhaps the teacher needs to probe the student further to find out whether he really knows the correct answer. This can be done by prompting or hinting, or by further questioning to direct the student toward a correct response. This is perhaps the most desirable reaction a teacher can elicit when an incorrect response is obtained, since it avoids the stigma which might have been attached to a wrong answer and leads the student to success in the form of a correct answer.

Teachers often inhibit student response by their reaction to correct answers which do not quite agree with their interpretation of the situation. The teacher will hear the student's response and then repeat the student's answer to the question with subtle variations which make it, thus, the teacher's answer to the question.

26.

It seems somewhat unreasonable, since we have made it a point earlier to make a student responsible for the answer, that the teacher would want to make the answer to the question appear to originate with himself.

One characteristic of beginning teachers which tends to reduce the effectiveness of questioning is their willingness to accept the first answer that is given. Many times a beginning teacher, by accepting the first answer he gets to a question, actually renders somewhat useless the whole questioning procedure, since a student may give a quick answer without having given careful thought and will probably, by the time he has finished the answer, be ready with a more complete response. If the answer given by a student is not totally satisfactory, the teacher should look for a better response either from the first respondent, or from another student.

The teacher should be ready to expand on any answer with such responses as, "Can you give an example?" or "How does that compare with the idea Jerry just gave?" Explain, compare, give examples, clarify, or just plain "What makes you think so?" should be carefully sharpened tools in the teacher's conversational kit. In many cases they can be used to help get the teacher past a difficult point in the lesson as well as to improve the quality of student responses.

Even in many cases where the student's answer appears to be correct, the teacher can enhance the conversationality of the situation by asking for further responses, additional reactions, or by calling on students who may indicate a desire to speak further. This must, of course, be done with care, in order to avoid giving the impression that the first response was incorrect. The teacher's statement, "I like that one, but I wonder if there are any other points we want to look at" might avoid this kind of feeling. Or, in the event another student still has his hand raised, the teacher might say, "Very good, let's see what Fred has to add to your answer." The values of such a procedure are numerous. Among them, the development of the feeling on the part of the student that the teacher is carefully weighing and analyzing his answer is very important. Since the student wants to feel that his answer is significant, the willingness of the teacher to look carefully at the answer will draw a favorable reaction from the student.

This has been a very brief introduction to four fundamental elements of successful teaching. They will not resolve all the classroom problems which may be encountered, but the incorporation of these devices into classroom practice will make a significant contribution to classroom success, especially if it can be coupled with the general relationship between teacher and students suggested here. Growth in the ability to utilize the "Four C's" can come only as a result of practice and commitment to this means of improved classroom performance.

27.

Computational Skills

Behavioral Objective: At the end of this unit the student should be

able to show that he:

1. Has evaluated the various materials for instruction in compu-
   tational skills by listing the relative merits of two approaches
   which might be open to him.

2. Can apply an experience centered approach to teaching computa-
   tional skills by developing an individual program of instruction
   based upon data given for a simulated situation.

Learning Experiences

1. Recent developments in mathematics instruction have led to
   divergent opinions regarding what constitutes an appropriate
   approach to mathematics instruction for adult basic education.
   The public schools have largely adopted the "modern" math ap-
   proach, which is heavily oriented to concept development.
   The more familiar mathematics is further divided into two ap-
   proaches, which might be classified as the "practical" and the
   "basic skills".

   Most authorities favor the "practical" approach because adult
   basic students often have developed a fundamental understanding
   of numbers and number skills simply by repeated contact and use.
   Adult basic students generally have a significantly higher
   level of competence in arithmetic than they do in reading.   The
   practical approach takes advantage of this acquired skill by
   applying it to problems of a familiar setting.

An additional advantage to the practical approach is that most
instructional materials prepared exclusively for adults have
this orientation.

Read the essay, Arithmetic In Adult Basic Education, by Robert
L. Johnson.   Enclosure #1
Study the materials listed below and identify the approach taken
in at least six.

Additions of Like Fractions, Dippold; Graflex

Adult Adventures in Arithmetic, Upton; American Book

Adult Adventures in Arithmetic, Mathematics AA, Upton; American Book

Arithmetic, Brice; Holt, Rinehart & Winston

Arithmetic 1, Cambridge

Bases and Numerals - Introduction to Numeration, Seltzer; Macmillan

Basic Essentials of Mathematics, Part I, Shea; Steck-Vaughn

Basic Essentials of Mathematics, Part II, Shea; Steck-Vaughn

Consumer Mathematics, Book I - Vocational Opportunities & Lifetime
Earnings, Knowles; Behavioral Research Laboratories

Figure It Out, Book I, Wallace; Follett

Lessons for Self-Instruction in Basic Skills - Addition AB, Addition EE,
Division EF, Multiplication D, Subtraction AB, Subtraction C, Sub-
traction EF, Following Directions Series CD, Brueckner; California
Test Bureau

Mathematics, A Basic Course, Book I, Frankson, Finkelstein; Cambridge

Measure, Cut & Sew, Starks; Holt, Rinehart & Winston

Programmed Math for Adults, Book 1 Basic Addition, Book 2 Addition,
Book 3 Subtraction, Book 4 Multiplication, Book 5 Division, Book 6
Fractions, Book 7 Decimals, Book 8 Measurement, Book 9 Consumer Math,
Book 10 Personal Math, Sullivan Association; McGraw-Hill

Working With Numbers, Book III, Shea; Steck-Vaughn

29.

2. An experinece centered approach to teaching computational skills attempts to focus on the elements of arithmetic which are encountered in the everyday experiences of the adult basic student. Examples of materials of this kind may be found in the Curriculum Guide for Adult Basic Education, Sibilisky, pp 40-52. This is a document available through ERIC, Ed 028 360. An experience centered approach to arithmetic may very well utilize not only the common interests of individual students such as budgeting, making bank deposits, writing checks or adding the figures from a grocery store advertisement, but may utilize the occupation or the occupational goal of the student to suggest materials and problems. For example, housewives may need to study measurement or fractions for use in cooking. Truck drivers may use maps to compute mileage, or mileage figures to compute gasoline consumption. Carpenters or bricklayers are required to use measurement and fractions. Choose a specific occupation and develop an outline of study, including sample problems, which would relate to this occupation as they might be used in teaching computational skills to an adult basic student.

You may use materials selected from as many as three of the sources listed above, but must also include some problem materials you have prepared yourself. Remember that you must assume the level of ability of the student in planning the materials he will be expected to use. Once you have completed this plan check with your instructor for evaluation of it.

30.

3. Practice teaching an arithmetic lesson based on the experience centered approach to one or more of your peers. Ask him to evaluate the lesson once you have completed it. You may wish to make a recording of this lesson, either by use of an audio tape recorder, or, if it is available, on video tape so that you may examine your procedures in teaching, as well as the plans which you developed.

Self Assessment

Write an evaluation of the materials which you have prepared for teaching computational skills and of your performance in presenting the plan to your peers. You may use the criteria of the Four C's of Teaching as a basis for your evaluation. Once you have completed the evaluation you are ready for the post assessment.

Post Assessment

Arrange to meet with your instructor for an evaluation of your proficiency in the area of teaching computational skills. You should be prepared to show him the evaluation which you have written as a part of the self-assessment. The instructor may ask you to outline a plan for instruction based on data he will supply for a simulated class situation. Your performance here should illustrate not only your proficiency in using the experience centered approach, but should also show evidence that you have evaluated and selected at least two sources of material to be used for this instruction. If you choose, one of the sources may be materials which you have prepared yourself.

31.

Additional Sources of Ideas and Materials

Algebra, Book I, Austin, Texas; Steck-Vaughn, 1960

Arithmetic Is Fun, Wallace, Mary; Lark Foundation, Yakima, Washington

Basic Numbers and Money, Series 300, Galien, Mich.; Allied Education Council, 1965

Mathematics-Advanced Level, Shea, James

Mathematics-Beginning Level, Goble, Dorothy

Mathematics-Intermediate Level, Shea, James

Measurement Terms and Tools for Measurement, Dept. of Interior, Branch of Education, Bureau of Indian Affairs, Published by Seminole Adult Education Program

Money Makes Sense, Kahn, Charles, San Francisco, Calif.; Feron, 1960

Scientific Research Association, Greater Cleveland Mathematics Program, Books 1-9, The Association, Inc., Chicago, Ill., 1965

You and Your Money, Austin, Texas; Steck-Vaughn, 1967

The materials listed below, while not intended explicitly for use with students in adult basic education, may provide valuable insights into the process of teaching basic mathematics.

A Guide to the Use and Procurement of Teaching Aids for Mathematics, Berger, Emil J., Johnson, Donovan A.; National Council of Teachers of Mathematics, 1959.

Building Mental Imagery in Mathematics, Jencks, Stanley M., Peck, Donald M.; Holt, Rinehart & Winston, Inc., 1968

Multiple Methods of Teaching Mathematics in the Elementary School, D'Augustine, Charles H.; Harper & Row

Teaching New Mathematics in the Elementary Schools, Blaney, Rosemarie B.; Teachers Practical Press, 1964

An additional source of possible value to the teacher of adult basic students in mathematics is:

<u>Occupational Mathematics</u>, Washington State Coordinating Council for
Occupational Education, Olympia, Washington

This source consists of 27 programmed texts in basic mathematics
intended for vocational students.   Topics range from manipulation of
fractions to scientific notation.

Available through ERIC as VT 006 833 to VT 006 909, or ED 022 929
to ED 022 953.

Enclosure #1

ARITHMETIC IN ADULT BASIC EDUCATION

Robert L. Johnson
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The danger in speaking in a general way, and briefly, about the problems of teaching adults about arithmetic lies first in the fact that there is no general model, no special essence, no sine qua non which characterizes the adult and, second, in the nature of the subject matter. With regard to their grasp of the essential elements of arithmetic, adults, like children, come in all shapes and sizes. And, although some of us managed to acquire some fundamental notions of arithmetic through mysterious means, the concepts of arithmetic are of such a nature as to require special kinds of learning. Nevertheless, it should be possible to identify some of the most obvious generalizations in spite of these two restraints.

A basic assumption will serve us well as the problems of adult education in arithmetic are analyzed. This assumption is that the adult learner must rely upon understanding ideas and must not rely upon rote memory. In spite of all efforts to explain an idea, the teacher is often eventually resigned to telling the student to just memorize the technique or the algorithm. Often this student is the one least capable of memorization so that the effect of such attempted teaching is to limit the achievable goals for the student to those within the range of his memory skills.

Within the framework of this assumption the teacher of adult basic education in arithmetic has only to choose the manner of presentation of topics. The criterion here should be the social,

economic, or vocational usefulness of the method. The adult will believe that if he can't use what he is being taught, then he doesn't really understand it.

The choice of topics from arithmetic is obvious: the four fundamental operations with whole numbers, fractional numbers, decimals, and percents. In order to make these operations most understandable, I recommend that the first topic be _counting_. The mystery of our number names can only be removed by making clear the routine of our numeration system, while meaning can be attached to addition and the other operations by reference to counting. It is as if there is but one fundamental operation, counting, while all others are derivatives.

Finally, the choice of suitable materials must remain the decision of each instructor, because the needs of each group of adults are unique. In general, the best choice is to develop materials at the site and not to depend solely upon commercial texts. As teachers of adults in this program, we must remember to vary the routine, use concrete situations, lab work, models, experiments; real life situations should be dramatized. We should emphasize oral work, pace the work to promote success, and emphasize the need for each adult to understand arithmetic. Above all else, we must be resourceful, sympathetic, flexible, honest, loyal, trustworthy, and brave.

TEACHING READING

IN ADULT BASIC EDUCATION

UNIT: TEACHING READING IN ADULT BASIC EDUCATION

Behavioral Objectives

After completing this unit you will be able to:

1. Comprehend word recognition skills necessary for reading by
    writing a lesson plan for each of the following word recogni-
    tion skills: a single consonant, a short vowel, a long vowel,
    a schwa, a diphthong, a consonant blend, an inflectional end-
    ing, a suffix or a prefix, and syllabication.

2. Implement lessons to teach word recognition skills by teaching
    self-constructed lessons to adults in adult basic education
    classes and receiving a satisfactory rating on a critique sheet
    filled out by a teacher or supervisor.

3. Comprehend reading comprehension skills by writing a lesson
    plan for each of the following comprehension skills: recog-
    nizing the main idea, recalling specific details, making in-
    ferences, and relating data in an article to information
    gained from another source.

4. Implement lessons to teach reading comprehension skills by
    teaching self-constructed lessons to adults in adult basic
    education classes and receiving a satisfactory rating on a
    critique sheet filled out by a teacher or supervisor.

5. Comprehend materials that are available to teach reading to
    adults by listing and summarizing the purposes of two dif-
    ferent commercial, adult basic learning materials.

6. Analyze the importance of the language-experience approach to
    teaching reading in adult basic education by describing a
    language-experience lesson you have developed and taught, then
    comparing that lesson with commercial reading lesson materials.

7. Apply knowledge of fifteen characteristics of non-reading adults
    by checking a list of each characteristic and its accompanying
    instructional implications for effectively teaching adults
    against your teaching behavior in an adult basic education class.

LEARNING EXPERIENCES

1. **Read** the following source; this is an excellent, small paperback book discussing the word recognition skills:

    a. Word Attack Skills in Reading by Carl J. Wallen, 1969 Charles E. Merrill Publishing Company. This book is an excellent reference book for any reading teacher.

    b. Although the above source is recommended, any of the following sources may be adequate:

       1) Phonics in Proper Perspective, Second Edition by Arthur W. Heilman, 1969, Charles E. Merrill Publishing Company

       2) Programmed Word Attack for Teachers by Robert M. Wilson and Maryanne Hall, 1968, Charles E. Merrill Publishing Company.

       3) Teaching Them to Read by Dolores Durkin, 1970, Allyn and Bacon, Inc., Chapters 10, 11, and 12, pp. 233-321

    c. As you read, there may be some questions arise that are left unanswered. **Write** these questions on paper. Such questions are encouraged, particularly when they apply to your understanding of how to teach any particular word analysis skill.

    d. After completing the reading, if you have any unanswered questions arising from the readings, arrange a conference with the instructor to **discuss** the questions.

2. After completing one of the sources above, **read** the Scope of Phonic Analysis Skills outline (Enclosure 1). Keep this outline in a readily available place and use it as a guide to reading program development, for lesson plans, for individual testing and teaching objectives, and for individualized program charts.

3. **Write** at least one lesson plan for each of the word recognition skills listed below. Use a format similar to that of the sample lesson plan (Enclosure 2). Note: These are not to be complete reading lesson plans, but merely the parts of lesson plans that deal with word recognition skills.

    a. Either of the single consonants c or g

    b. Any other single consonant of your choice

    c. Consonant blend

38.

d. Short vowel

e. Long vowel

f. Schwa

g. Diphthong

h. Inflectional endings

i. Suffix or prefix

j. Breaking words into syllables

After completing the first lesson plan, have it approved by
the instructor before writing the other lesson plans. This
may save you considerable time in writing the other lesson
plans. After all the lesson plans are complete, give them
to the instructor for evaluation.

4. <u>Teach</u> an adult or a group of adults in an adult basic edu-
cation class a lesson from four of the categories of word
recognition skills listed in Learning Experience No. 3.
You may prepare new lesson plans or use lesson plans you
prepared in Learning Experience No. 3 if the lessons are
appropriate for the particular learners you work with.

After completing each lesson, critique your lesson using
one of the Critique Sheets (Enclosure 3). Give one of
the Critique Sheets to the teacher or supervisor so that he
also may evaluate your teaching.

5. <u>Read</u> Chapter 13, pp. 285-307, in <u>Improving Reading Instruc-
tion</u> by Donald D. Durrell, 1956, Harcourt, Brace and World,
Inc. This is an excellent chapter describing how reading
comprehension can be taught.

6. <u>Write</u> one lesson plan for each of the following comprehension
skills. Remember from Chapter 13 of Durrell that oral recall
or answering of questions is easier (more successful) than
written recall or answers. As the reading materials for these
lesson plans, use materials that are used in adult basic
education classes. Use a format similar to the sample lesson
plan (Enclosure 4). Arrange a conference with the instructor
and discuss the completed lesson plans with him.

a. Recognizing the main idea

b. Recalling specific details

c. Making inferences

d. Relating data in an article to information gained else-
where

39.

7. Teach an adult or a group of adults in an adult basic education class a lesson emphasizing one of the four comprehension skills listed in Learning Experience No. 6. You may prepare a new lesson plan or use one of those you prepared in Learning Experience No. 6. After completing the lesson, critique your lesson using one of the Critique Sheets (Enclosure 3). Give one of the Critique Sheets to the teacher or supervisor so that he also may evaluate your teaching.

8. Examine materials in a curriculum library and in programs of adult basic education to become familiar with various commercial materials that are available. Choose two different sets of commercial materials and study them in sufficient depth that you would feel confident in teaching with these materials. In writing list the materials of each set, explain their purposes, and describe briefly how they should be used. Remember, no set of teaching materials is any better than the teacher using it. Submit this written assignment to the instructor.

    To help you identify adult basic education materials, the accompanying list (Enclosure 5) may be very useful. Please be aware that most major publishing companies are producing adult basic education materials, and any list will constantly need up-dating.

9. Read the two sources listed below. These two sources merely introduce the language-experience approach to teaching reading. Although these sources were written for teachers of young children, the principles and procedures may be adapted easily to the more mature student in adult basic education classes. Even though only a minimum amount of reading has been suggested, you may find it informative and interesting to read further in each source.

    a. Teaching Reading As A Language Experience by MaryAnne Hall, Charles E. Merrill Publishing Company, 1970, pp. 26-34.

    b. The Language-Experience Approach To The Teaching Of Reading, by Russell G. Stauffer, Harper and Row, Publishers, 1970, pp. 253-58.

10. Develop, in writing, a language experience reading lesson to teach to an adult in an adult basic education class. Use a format similar to that of the sample lesson plan (Enclosure 6). Submit the lesson plan to the instructor for approval.

11. Teach an adult in an adult basic education class from the above lesson plan. Assume the learner needs the particular word analysis skill you prepared or be ready to present another word analysis skill that you determine is needed as you inter-act with the learner.

12. <u>Compare and contrast</u>, in writing, the lesson you presented
     in Learning Experience No. 11 with one of the sets of com-
     mercial reading materials you described in Learning Ex-
     perience No. 8.   After you have completed the writing, discuss
     it with the instructor.

13. <u>Read</u> the list of characteristics of non-reading adult learners
     and the accompanying instructional implications for teachers
     (Enclosure 7).   As you student teach and as you teach, check
     your teaching behavior against this list by putting a check
     mark in the blank in front of the item numbers of the instruc-
     tional implications you are successfully providing.

     Extra copies of this list are provided so that you may do
     this periodically during the year; it may be helpful to have
     a program director or supervisor check your teaching behavior
     with this list once a year.

Enclosure 1

UNIT: TEACHING READING IN ADULT BASIC EDUCATION

SCOPE OF PHONIC ANALYSIS SKILLS

Visual Discrimination

1. Capitals: O X A B T C L R I S P N F E H D M K Z J Y
    W G Q U V

2. Lower case: o x s c i p t m k z e w r j y f n a h v u
    b d l g q

    NOTE: In adult basic education classes, you may want to
    teach the letters in alphabetical order rather than
    in the above order of the easiest to most difficult
    to learn.

    If you want to teach capitals and lower case at the
    same time, use the order presented for capitals or
    use the usual alphabetical order.

3. Consonant blends: bl br cr dr fl fr gl gr pl pr sc sl
    sk sm sp str sw tr

4. Consonant digraphs: ch ph sh th wh

Auditory Discrimination

1. Consonants

    a. Initial single consonants: f b h g c l m d j n k p r
        w s t y v z qu x

    b. Initial consonant blends: dr cr tr pr gr br fr cl fl
        pl gl bl sl sc sk sm sp st
        str sw

    c. Initial consonant digraphs: th wh ch sh ph

    d. Final single consonants

    e. Final consonant blends and digraphs

2. Vowels

    a. Short vowels: a e i o u (As in "Fat Ed is not up.")

    b. Long vowels: a e i o u (Sound is same as its own name.)

42.

51

Phonic Word Attack

1. Letter names

2. Consonants

   a. Initial single consonants: f b h g c l m d j n k p
                                 r w s t y v z qu x

   b. Initial consonant blends: dr cr tr pr gr br fr cl fl
                                pl gl bl sl sc sk sm sp st
                                str sw

   c. Initial consonant digraphs: th wh ch sh ph

   d. Final single consonants

   e. Final consonant blends and digraphs

3. Vowels

   a. VC and CVC pattern
      at   cat

   b. VCE and CVCE pattern
      ate   rake

   c. CV and CVV pattern
      go   buy

   d. Vowels not in patterns

      1) ai ea ee oa (boat)

      2) oo and oo (fool and foot)

      3) Diphthongs: oi ou ow oy (boy)

      4) Vowel and r: ar er ir or ur (far)

      5) a followed by l ll u w (awful)

      6) o followed by ld (fold)

      7) i followed by gh ld nd (fight)

43.

Structural Word Attack

1. **Terminology**

   root, affix, suffix, prefix, compound words, and root-stems
   (<u>tele</u>phone)

2. **Introductory level**

   a. Prefixes: un-

   b. Suffixes

      1) The spelling of the root word remains unchanged
         when a suffix is added: words   answered   going
         boy's taller

      2) Letters are added to the root word:

         stopped begging dimmer dimmest fitted hitting

      3) The last letter in the root word is deleted:

         piled smiling wider caged riding widest

      4) The last letter of the root word is changed:
         cities cries cried drier dried driest

   c. Compound words

3. **Intermediate level**

   a. Prefixes: a- dis- in-

   b. Suffixes: -ble -er -or -ful -less -like -ly -y -ty

                 -ment -ness -ous -ship -tion -sion -th -w

   c. Compound words

4. **Advanced level**

   a. Prefixes: a- ad- ap- com- con- de- dis- en- im-
                 il- ir- pre- pro-

   b. Greek and Latin root-stems

44.

Syllabic Word Attack

1. Identify vowels and consonants

2. Two syllable words

    a. VC/CV pattern: matter   narrow   ladder
        pencil   mountains   harpoon
        pumpkin   athlete   minstrel

    b. V/CV pattern: again   final   desert
        report   machine   reply
        vibrate   agree   about

    c. Exceptions to the V/CV pattern (Teach the learner to
        try the pattern like b above):
        de/sert (first try)   des/ert (second try)
        re/fuse   ref/use

    d. -le pattern: an/kle   han/dle   mar/ble

3. Multisyllabic words: Follow the same pattern as with single
    syllable words.

Sight Words

1. Teach whatever sight words are deemed necessary for reading
    a particular story.

2. Teach sight words when teaching vocabulary.

3. Teach whatever words may be used for word knowledge in
    phonic word attack.

Context Clues

1. The reader should learn always to verify the accuracy of
    any unknown or unfamiliar word he attacks with word analysis
    skills in his reading. This is done by determining if the
    new word is appropriate for the context in which it is used.
    If the new word fits so that the sentence is meaningful,
    then the probability of the new word being correct is in-
    creased.

Enclosure 2

UNIT: TEACHING READING IN ADULT BASIC EDUCATION

SAMPLE LESSON PLAN FOR TEACHING A WORD RECOGNITION SKILL

<u>Objective</u>: Phonic analysis skill: initial consonant "h"

<u>Procedures</u>:

1. Show the following word-pairs, one at a time. Pronounce
   the first word. Ask the student to pronounce the second
   word. If the student cannot pronounce the word, refer to
   the picture word <u>hat</u> (Procedure No. 2). Continue through
   the complete set of words. If the student can pronounce
   all five words correctly without aid, terminate the lesson
   (the learner has already achieved the objective).

   mouse: house pill: hill
   ten: hen   cut: hut
   land: hand

2. Show a picture of a hat with the word <u>hat</u> printed under-
   neath. Ask what the object in the picture is. Reply:
   Yes, and this is how hat is spelled. What is the first
   letter in hat? Yes, and show me how you form your mouth
   and what you do to make that sound. Good! (Always provide
   much positive encouragement.)

3. Tell the student that when he comes to words in his read-
   ing that begin with "h" he should give them the same sound
   as he did the practice and picture words above. You may
   bring out this application by asking questions of the students.

4. After a short time, test the student with the following
   word-pairs:

   lot: hot   tint: hint
   jem: hem   bug: hug
   tang: hang

   If the student misses any word in this test, present the
   lesson objective again in a future lesson.

<u>Materials</u>:

1. Picture of hat with word <u>hat</u> printed underneath.

2. Flash cards containing the words listed above in items 1 and 4.

NOTE: When you actually teach, you will not need to have such a
       detailed lesson plan. You will use phrases and words whereas
       in these lesson plans complete sentences are necessary for
       the course instructor to know what you intend to do.

UNIT: TEACHING READING IN ADULT BASIC EDUCATION

Critique Sheet

Put a check mark in front of each item that can be answered "yes"
in this particular lesson.

_____ 1. Was the specific objective of the lesson clear?

_____ 2. Were a variety of procedures and aids used to make the
          lesson objective more clearly understood and easily
          achieved?

_____ 3. Did I effectively use my voice to reinforce the student?

_____ 4. Did I attempt to make the student feel important?

_____ 5. Did I attempt to make the student feel the skill is
          important?

_____ 6. Was the lead-in to the lesson effective?

_____ 7. Was the lesson development clear enough to avoid con-
          fusion or frustration by the student?

_____ 8. Did I provide a conclusion or an application so that the
          student may see how he may use the skill to improve his
          reading?

          Comments:

Signed:_____Date_____

Enclosure 4

UNIT: TEACHING READING IN ADULT BASIC EDUCATION

SAMPLE LESSON PLAN FOR TEACHING A COMPREHENSION SKILL

Objective: Recall of specific details

Procedures:

NOTE: The comprehension objective and procedures would follow
the word recognition objective and procedures in the lesson
plan. The word recognition procedures should include sight
words and vocabulary discussion that would enable the
learner to read the story with few, if any, interruptions
caused by meeting words he did not know.

1. Introduce the story to stimulate interest.

2. Ask the following questions before the learner reads the story;
then let the learner read to find the answers.

   a. What was the first evidence that something different
      lived high in the mountains?

   b. Three experiences with the strange creature were told
      in the story. Will you describe each story?

   c. How tall were two of the creatures that were seen?

3. Be available to provide words the learner needs help with
   in his reading. Make a note of what these words are; these
   words may provide clues for word recognition skills to be
   presented in future lessons. Do not have the learner try to
   sound out the words in this part of the lesson because you
   are emphasizing understanding ideas, not pronouncing words.

4. After the learner finishes reading, ask the questions again
   one at a time. Allow the learner to respond orally. If he
   cannot answer a question, have him re-read that section where
   the answer is located. Emphasize that this kind of re-reading
   is a method of improving comprehension, not a punishment.
   Allow him to give the correct answer once he finds it. Praise
   him.

5. If the learner answers each question correctly without returning
   to the article, praise him. Then ask additional specific ques-
   tions from the article:

   a. What did the men do when they saw the two creatures
      after following their tracks for hours?

   b. What did one explorer do to prove that footprints of
      the creature exist?

48.