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The University of Missouri adult basic education (ABE) system, developed from the ABE laboratory with the help of Title III funds, consists of a series of subsystems designed to effect behavioral change in undereducated adults through an individualized flexible approach to learning. The subsystems of diagnostic testing, individual counseling, teaching-learning, achievement testing, and group counseling workshops are structured around the psychological and curricular principles of individualized learning: meaningful and practical adult curriculum; a variety of instructional media, a threat-free learning environment; immediate feedback; active learning situations, and sensitized teachers, aides, counselors, and researchers. Specific curriculums for reading, language, mathematics, and social studies are presented with suggested published materials. The counseling workshop curriculum consists of group activities which are entirely learner centered. A counselor guides learners through units they have devised, utilizing role playing, class talks, panel discussion, guest speakers, films and teacher made materials. (pt)

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THE UNIVERSITY OF MISSOURI ADULT BASIC EDUCATION SYSTEM

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I would like to express my congratulations to the Extension Division, University of Missouri at St. Louis, for developing and publishing "The University of Missouri Adult Basic Education System." I feel certain that this publication will be extremely helpful to administrators and teachers of Adult Basic Education.

It is entirely logical, it seems to me, that the University should assume leadership in the research and development of new and better approaches to teaching Basic Education.

Implementation of new ideas is critical in education today. The need has existed for a change in the basic structure of the Adult Basic Education curriculum and in the people involved at all levels. I feel this publication will help bring about these changes.

Best wishes for a fine contribution to the teaching of Adult Basic Education and congratulations to the Adult Basic Education staff, Don Mocker, and Clive Veri for a job well done.

Sincerely,

Bill Ghan

Bill Ghan, Director
Adult Education

PREFACE

University personnel who view the role of their institutions as providing high level education to the intellectual elite of society might be prone to ask the question, "What business is it of a university to teach functional illiterate adults how to read, write, and compute?" The answer is patently simple: "The university has no business teaching adult illiterates, but . . .!"

But a basic adult education program, when viewed as a human laboratory having a tripartite function, becomes a viable sub-institution for any university to undertake. It is equally as viable for a university to support a continuing education center, a laboratory school, or, for that matter, a hospital. Each provides a service or an educational experience. Without a laboratory in which concepts and theories can be developed, hypotheses tested, people changed and environments manipulated, little would be added to man's knowledge.

The University of Missouri views its adult basic education program as a laboratory and is in the business of adult education by design. This publication is a result of three years of experience and is an attempt to provide a model for teachers and administrators who are interested in adopting this kind of approach for their adult basic education programs. Specifically, it describes the University of Missouri adult basic education system which evolved from the ABE laboratory. It places special emphasis on the curriculum which is presented in sufficient detail that it can be adapted to any other program.

ACKNOWLEDGEMENTS

Responsibility for the development of the University of Missouri's adult basic education system has been shared by the teachers, staff and students of the program. Special recognition is due Mrs. Nancy Carter, Program Coordinator for the Work Incentive Program and the adult students who played such a vital role in this project. Thanks are also extended to Virgil N. Sapp, Dean of Extension at the University of Missouri - St. Louis, and to William A. Gates, Director of the University of Missouri Extension Center in the City of St. Louis, both of whom provided the administrative atmosphere in which the ABE program was conducted.

Excellent cooperation was received from the Missouri State Department of Education and the Missouri State Department of Employment Security which were the primary sources of funding. The faculty of the University of Missouri - St. Louis, especially the School of Education faculty, was also of great help.

We are grateful for the contribution of these persons and institutions for without their assistance and dedication the ABE system would not have been developed. Needless to say, however, the authors accept the responsibility for the content presented here.

DONALD W. MOCKER
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THE ADULT BASIC EDUCATION MODEL

The adult basic education teaching-learning system developed by the University of Missouri - St. Louis evolved through trial and error based upon the state of the art in ABE programs, materials, and methods. From trial and error to trial and *success* is the story of the system. This publication describes the system and the curriculum which finally evolved. It reports the success of a system, a system which worked and achieved desired results.

The major portion of this publication is devoted to the step-by-step development of the curriculum of the UM-ABE program. In order to place the curriculum in its proper perspective, it is introduced here, and presents an abbreviated rationale of the system.

THE UM-ABE SYSTEM

Implicit in any definition of "system", are two basic components, input and output. Between these two elements, for a system to be a system, is the third component of manipulation. Defined in terms of hardware systems, this manipulative component is referred to as a "black box" where change of some sort is introduced. As a result, the input is changed in the "black box" and emerges as output. Figure 1 illustrates

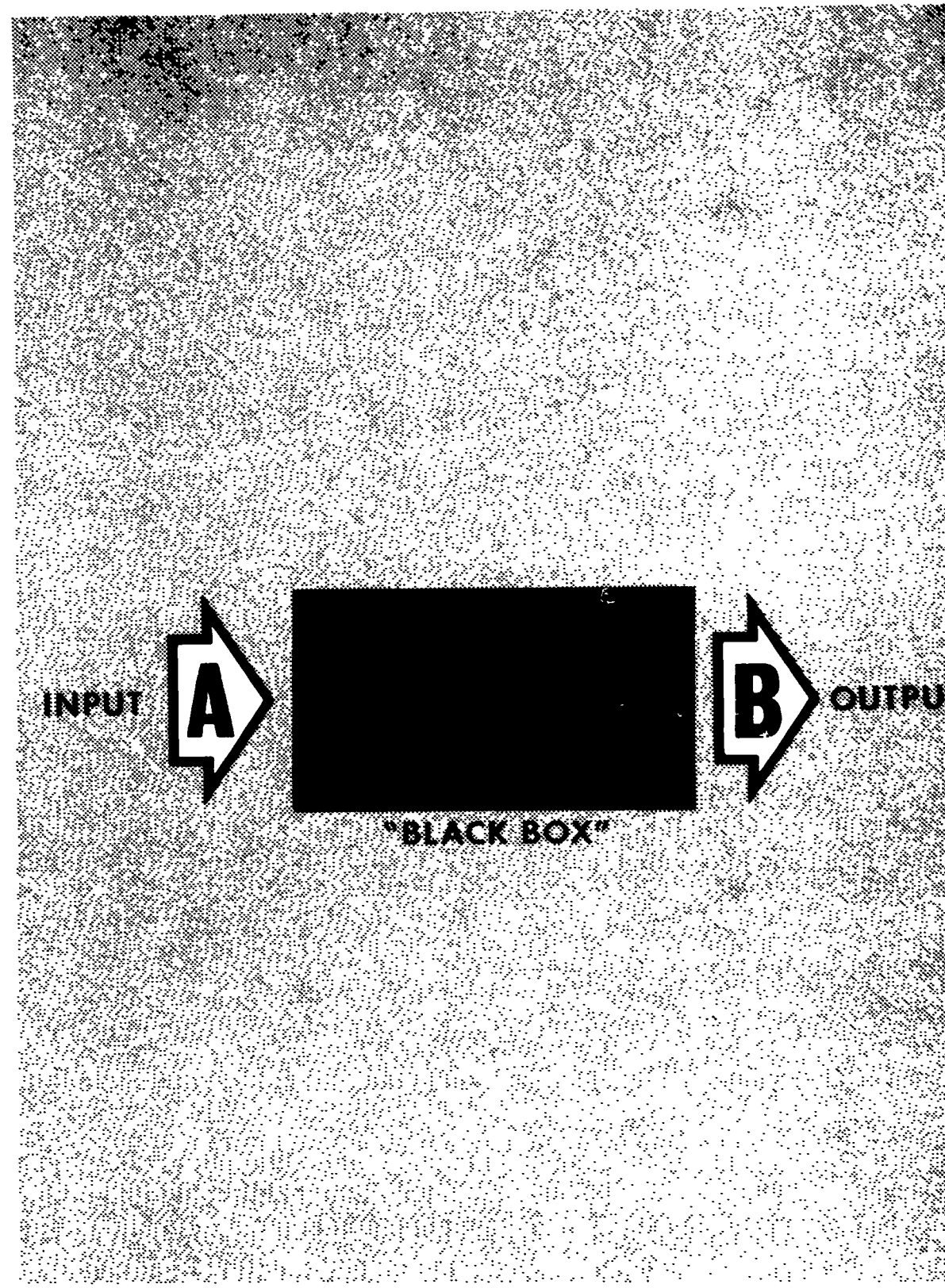

FIGURE 1 - THE BASIC SYSTEM

At a very basic level, A (input) enters the "black box", is manipulated in some way by the forces within the box, and emerges *not* as A but as A which has been transformed into B (output). Within the box, there might be several subsystems which act upon input A. For example, if in the normal system A is manipulated by (1), (2), (3), (4), and (5) as shown in Figure 2, a subsystem would be where A is sidetracked at (3) to be manipulated by (3A), (3B) and (3C).

In order to determine if output B has met previously defined criteria for change, test point (6) is introduced into the system. If input A has not been sufficiently changed at (6), it is shunted back to (4) (or any desired point) for additional treatment. Thus a feedback subsystem is made up of (6)-(4), (5), (6). Data from such a feedback subsystem are used either to send A back through a part of the already designed system, or as a basis for redesigning the system.

The University of Missouri adult basic education program is such a system. Input is people. The "black box" is a series of subsystems designed to effect behavioral change. Output is people who have advanced in their level of education.

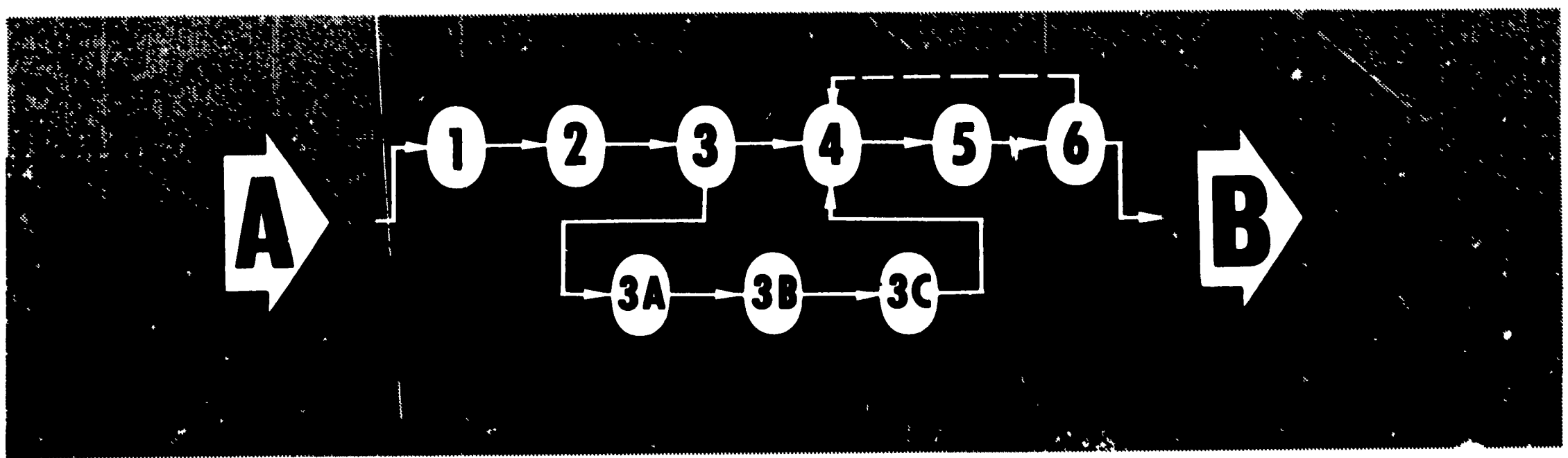

FIGURE 2 - SUBSYSTEMS WITHIN THE SYSTEM

The UM-ABE system is shown graphically in Figure 3. Undereducated adults (input) enter the system at A. They are diagnostically tested to determine their level of literacy and counseled on the basis of these test results. They then enter the teaching-learning subsystem, *not* necessarily at the beginning point of the curriculum, but at their functioning level. Following participation in the teaching-learning system, the learner is tested to determine if behavioral change has occurred, then counseled accordingly. If the learner, A, has met the criteria of the system, he is "outputted" (or graduated). If not, he is relayed back to a point in one of the teaching-learning subsystems where he can undergo the additional behavioral change necessary to satisfy the output criteria.

At a basic level then, the UM-ABE system inputs a learner into the "black box" where he interacts with subsystems designed to effect behavioral change. The system then outputs a different person whose educational level has been improved. Let us now examine the various subsystems.

DIAGNOSTIC TESTING AND COUNSELING SUBSYSTEMS

Diagnostic testing is the key element of the UM-ABE system, which relies heavily on the use of commercially produced diagnostic tests to determine the educational level of learners entering the system. The specific test used is the California Achievement Test, including the levels of Lower Primary, Upper Primary, Elementary, and Junior High School. This test diagnoses the achievement level of the learner in reading, language, and arithmetic, and provides diagnostic profiles. In arithmetic, for example, the profile shows grade placement in arithmetic reasoning (meanings, signs and symbols, problems) and arithmetic fundamentals (addition, subtraction, multiplication, division).

Each entering adult is given these tests for a total testing time of three hours. The tests are introduced in such a way that the client understands that only by finding his operational cognitive level can the curriculum be made to fit him as an individual.

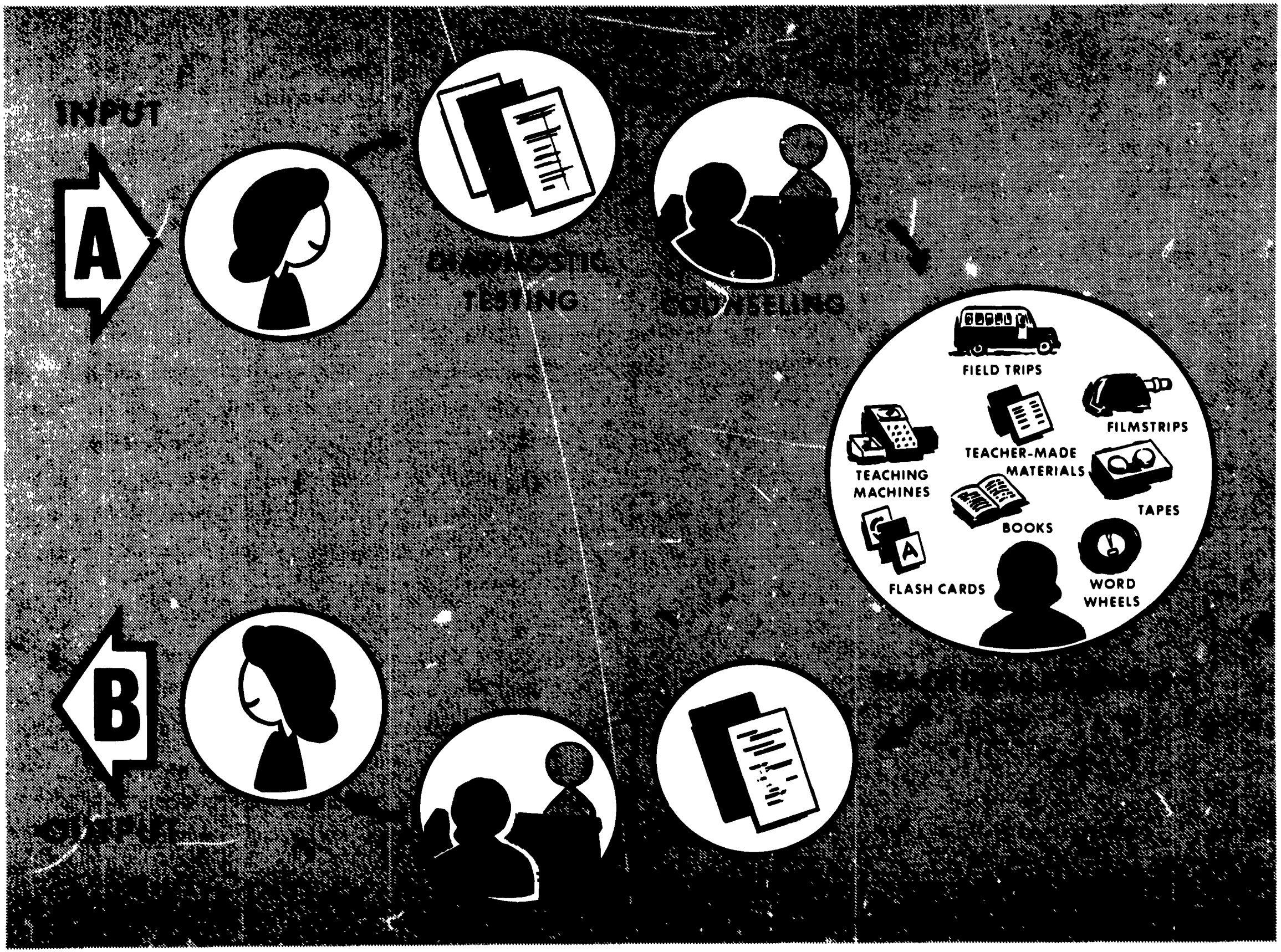

FIGURE 3 - THE UM-ABE SYSTEM

Tests are administered individually, scored, and confirmed by the teaching staff. Prior to taking the test, the client is told when the results will be known, and a counseling appointment is made. At the counseling session both the test scores and teacher comments are shared with the client.

The confirming procedure (administration of the test followed by face-to-face or verbal testing) frequently finds that the test was either operating against a client's ability or that the client, by chance guessing at answers, was erroneously scoring "high" on the test. In the first case, for example, a client might perform as follows in the subtraction subtest series:

Item	Content	Client's Answer
66	Simple Combinations	Right
67	Simple Combinations	Right
68	Simple Combination, zero	Right
69	Simple Combination, zero	Right
70	Borrowing	Right
71	Borrowing	Right
72	Borrowing, zero	Wrong
73	Borrowing, sub. money	Wrong
74	Borrowing, sub. money	Wrong
75	Subtracting numerators	Right
76	Subtracting numerators	Wrong
77	Common Denom.	Right
78	Common Denom.	Right
79	Subtracting, mixed no.	Wrong
80	Borrowing, mixed no.	Wrong
81	Borrowing, mixed no.	Wrong
82	Fraction from decimal	Wrong
83	Writing a decimal	Wrong
84	Writing a decimal	Wrong
85	Dominate numbers	Wrong

To confirm the client's test score, the teacher would start asking questions on "borrowing". If the client exhibited adequate reasoning or right responses to items 72, 73, and 74, the teacher would continue asking test questions until it was clear to him the client knew subtraction only to item 80 ("borrowing, mixed numbers"). Occasionally, it is necessary to test the client again using other tests and repeating the confirmation process.

Once the scores have been confirmed for each of the subtests both counselor and client have a good indication of where the teaching-learning process should start. A tailor-made program is then designed for a six week period. At the end of that time, testing and confirmation are performed, and the next phase of the program designed.

Diagnostic testing and counseling subsystems are shown graphically in Figure 4.

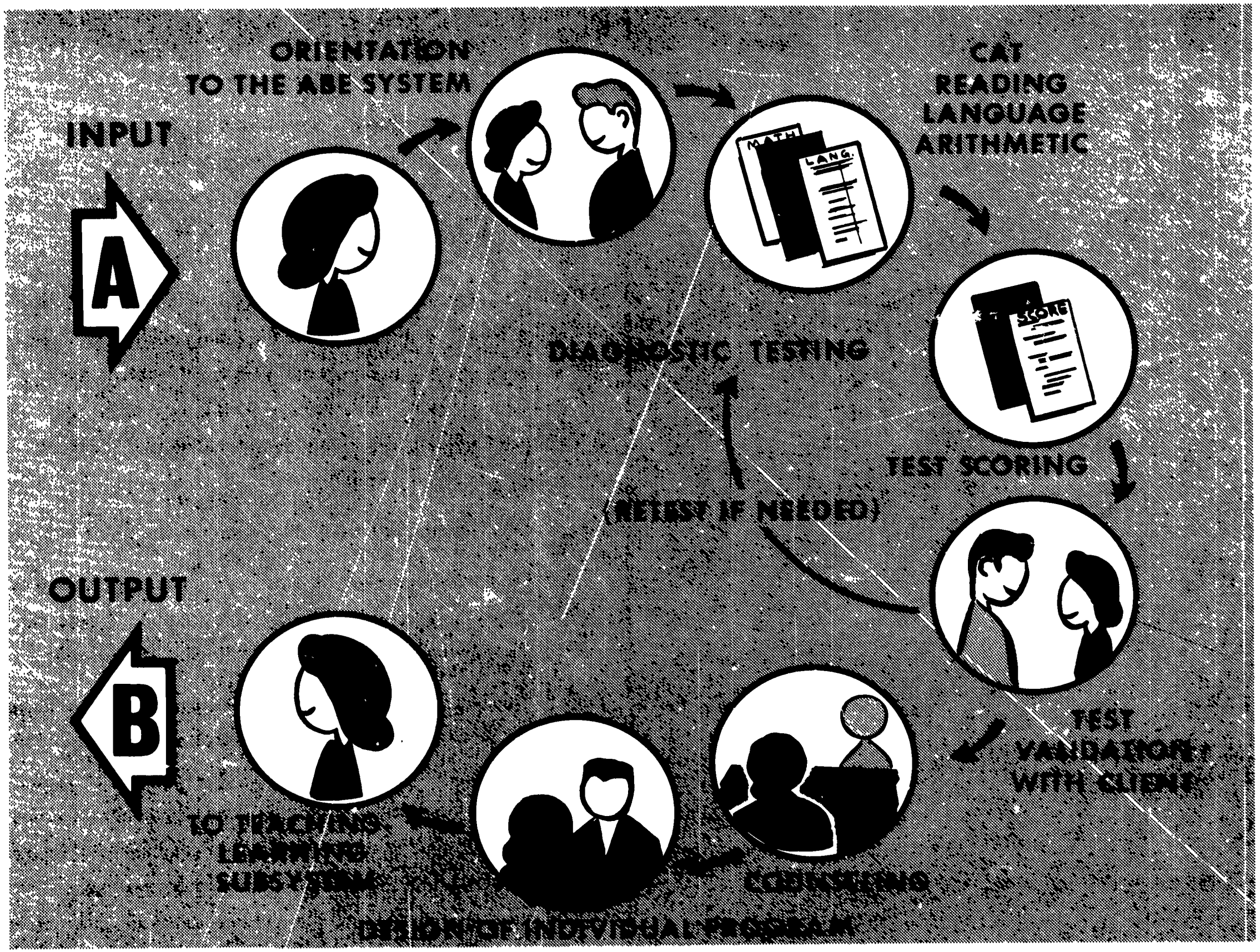

FIGURE 4 - DIAGNOSTIC TESTING AND COUNSELING SUBSYSTEM

TEACHING-LEARNING SUBSYSTEM

While the graphic representation of the Diagnostic Testing and Counseling Subsystem is fresh in mind, it would be beneficial to illustrate a typical Teaching-Learning Subsystem at this point.

After the counselor and the client determine at which point the client should enter the teaching-learning subsystem, an educational program is designed which enables the client to become a self-directed learner. This is a strong point of the UM-ABE system. By using this individualized approach to teaching-learning

- a learner can enter the system at any point in time;
- a learner receives diagnostic testing and counseling (as well as confirmation of test results) to determine starting points in a highly flexible curriculum; and
- a learner is stimulated to learn by an individualized program based upon meaningful, adult-oriented content.

Referring to Figure 5, the client enters the teaching-learning subsystem and a teacher introduces him to the content which has been prescribed from the counselor-client sessions. It is at this point that the client becomes a learner

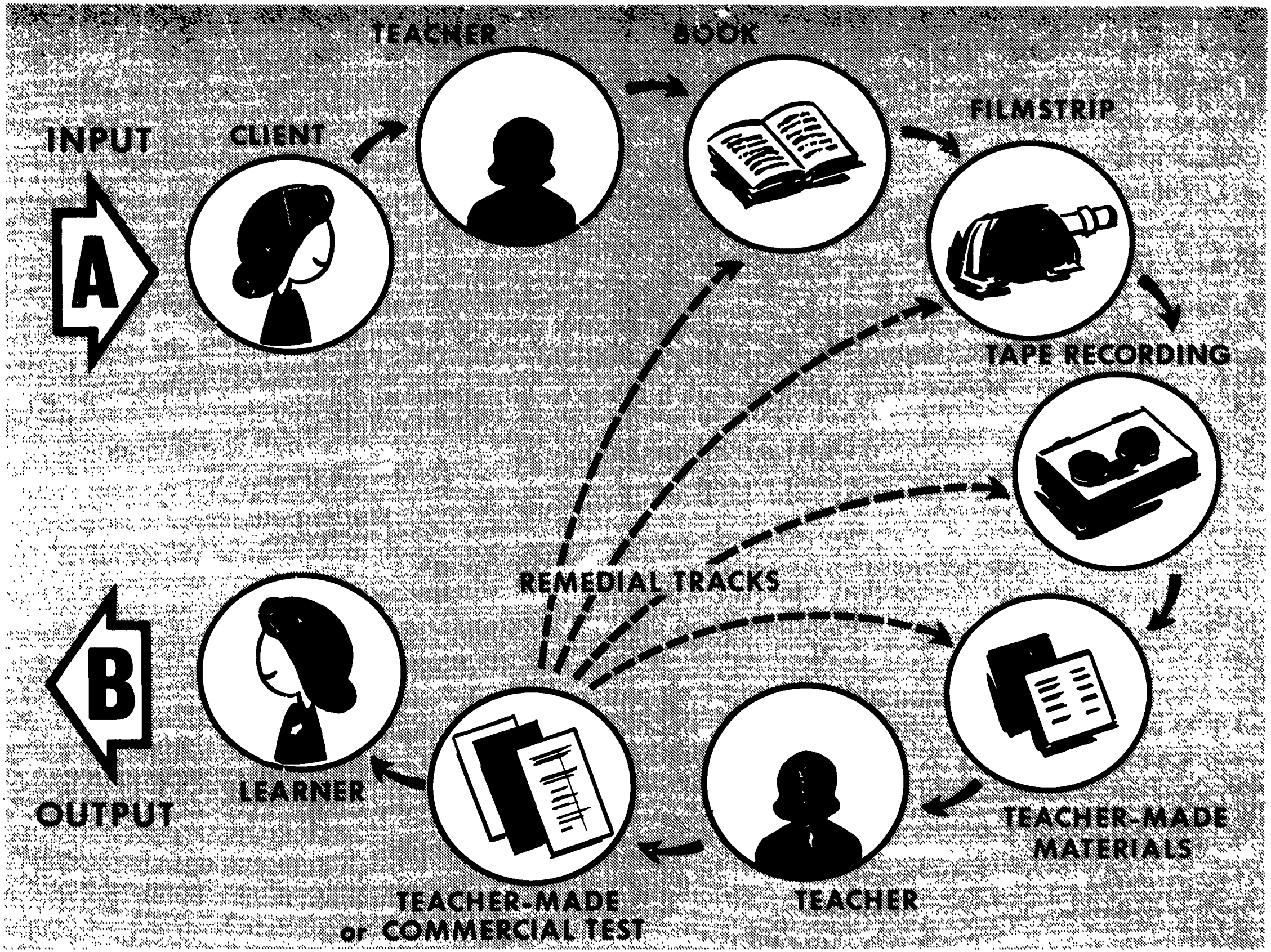

FIGURE 5 - A TYPICAL TEACHING-LEARNING SUBSYSTEM

in the formal sense. Typically, for a given unit, a learner will study commercially prepared learning materials, combinations of material published by two or more sources, and teacher-made materials for supplementary content and practice. Often, parts of programs in teaching machine format, selected portions of filmstrips, and audio tapes are used in a learning unit. Field trips, when appropriate in studying social studies for example, and other types of mediated learning experiences are also used. By following this procedure

- learning is, indeed, individualized (a learner can by-pass any portion of the unit he does not need);
- a learner who has difficulty in learning via one medium has the option of learning by two or more media;
- teachers are available to give individual assistance to learners at, or close to, the "learning moment";
- remedial learning, when needed, can be achieved by re-entering the system at any previous point; and
- a viable teaching-learning package is made up of the best parts of commercially available packages, supplemented by teacher-made materials.

After a learner has completed a unit of study, he takes a teacher-made test or some appropriate commercial test to determine whether or not he has accomplished the criterion level for behavioral change. If he performs satisfactorily on the examination, the learner enters another unit of study and the process begins again. At the end of predetermined levels, each learner is diagnostically tested and counseled so that the teacher can further direct the learner's study and progress.

In order to review the teaching-learning subsystem it might be well to follow a person from the point of input into the UM-ABE system. Recall that when an adult enters the system he is oriented, diagnostically tested, and counseled. Together, the counselor and the client design an individualized teaching-learning program based upon the client's functioning on specific elements of subtests in the California Achievement Test program. Using the previously cited example in subtraction (page 6), and making reference to the subtraction portion of the mathematics curriculum, it is possible to discuss one small part of the teaching-learning subsystem in specific terms.

If, for example, testing found that a learner could adequately answer all subtraction test items up to item 82, the prescribed individualized learning would start with content designed to teach "fraction from decimal" and proceed from this point. Referring to the Mathematics Curriculum, the learner's study program might be like that on the following page.

199.	Changing fractions with denominators of 10 to decimals of one decimal place	McGraw-Hill *Programmed Math*	Book 7 Pages 1-3
200.	Adding and Subtracting numbers of one decimal place	McGraw-Hill *Programmed Math*	Book 7 Pages 4-12
201.	Problem Solving: Decimals	McGraw-Hill *Programmed Math*	Problem Book 7 Pages 1-4
202.	Progress Test: Decimals		Teacher-made Test
203.	Decimals with 2-3 places	McGraw-Hill *Programmed Math*	Book 7 Pages 13-20
204.	Addition and subtraction of decimals with 2 and 3 places	McGraw-Hill *Programmed Math*	Book 7 Pages 21-34
205.	Diagnostic Test: Decimals	Science Research Assoc. Computational Skill Kit	Test No. 11
• • •			
211.	Progress Test: Decimals		Teacher-made Test
212.	Filmstrip	Eyegate "Fractions in Decimal Notation"	No. 162J
• • •			

While this example does not present the entire program a learner might study in order to test out of subtractions at a specified grade level, it does present the essential elements of the teaching-learning subsystem.

It is stressed here that only a single example of the subsystem has been discussed. The learner has similar experiences for other areas of mathematics as well as for language, reading, and social studies. While the entire teaching-learning subsystem *seems* complicated in practice, it is operationally simple for both the learner and the teacher.

Testing Subsystem

Testing is an integral part of any teaching-learning experience, for it is here that one determines if behavioral change has occurred. A test answers the question: "Is the learner any different after a specific educational experience than he was before the experience?"

The previous example of a learner's progress through the subtraction unit shows that both commercially-made and teacher-made tests are included in the testing subsystem. Normally a learner studies a portion of a unit, gains experience in the newly acquired skill by solving problems from a workbook, and then takes a teacher-made test. This sequence is repeated with other content until the end of a unit where a commercially-made diagnostic test is specified. Figure 6 illustrates the testing subsystem.

A part of the testing subsystem could also include administering an alternate form of the California Achievement Test if the learner feels he has accomplished his educational goal. Or, if a learner wants to earn a high school equivalency certificate, his testing program would include the General Educational Development Examination. If a learner fails to meet the criterion level for either of these examinations, he is recycled back through the system for remedial work.

It should be pointed out in a discussion of testing that this subsystem is designed to help the staff determine whether the learner has reached his goal rather than to determine whether he has "passed" or "failed". A learner's educational goal might be to attain an eighth grade level of education, or a G.E.D. certificate, or a sixth grade reading proficiency. The learner's educational goal is determined by himself, or

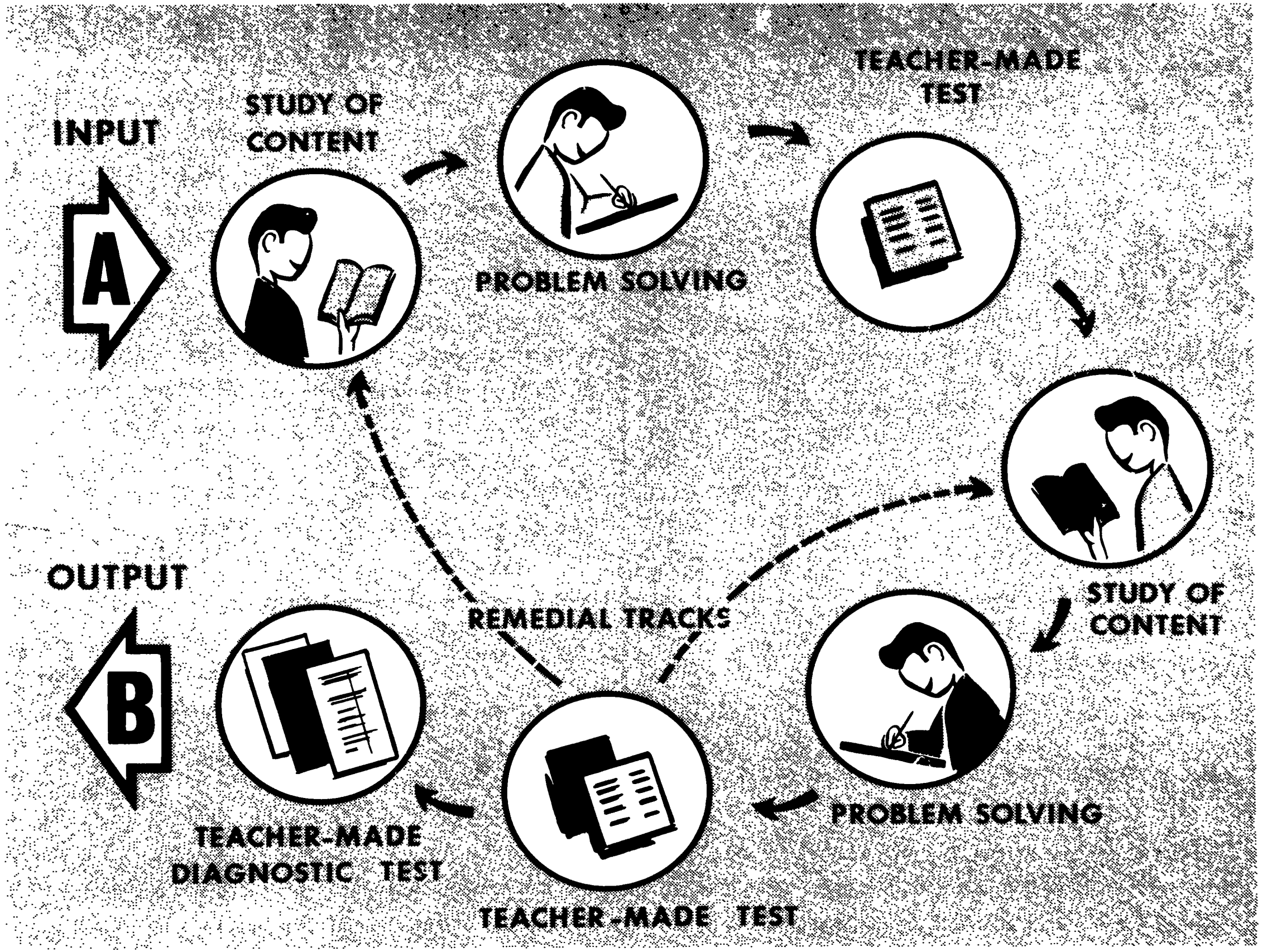

FIGURE 6 - TESTING SUBSYSTEM

occasionally specified by another agency or organization in which he is seeking employment.

Counseling Subsystem

The counseling subsystem, like the testing subsystem, is more accurately defined as a process. It is continually taking place and is an important part of the diagnostic testing and teaching-learning subsystems. Counseling is in this sense an integral part of each subsystem.

Operationally, the UM-ABE system includes two forms of counseling. The first, as already mentioned, consists of face-to-face conferences with clients after diagnostic testing sessions. This form also takes place when a learner needs special assistance in the areas of emotional, social, educational, or vocational problems. The second form is the counseling workshop for groups, which concentrates primarily on affective change—attitudes, beliefs, values—moving from awareness to internalizing to characterizing.

This latter form of counseling is actually a part of the adult basic education curriculum and is the only part of the teaching-learning subsystem which is done on a formal group basis. The normal procedure is for the counselor to lead a discussion on content which the learners feel is important to them. While the counseling workshop curriculum presented later seems fixed, it is, operationally, quite flexible. Figure 7 illustrates the general plan followed.

The particular content in the counseling workshop curriculum evolves from experience with previous learners and generally represents the content discussed during counseling experiences with earlier groups.

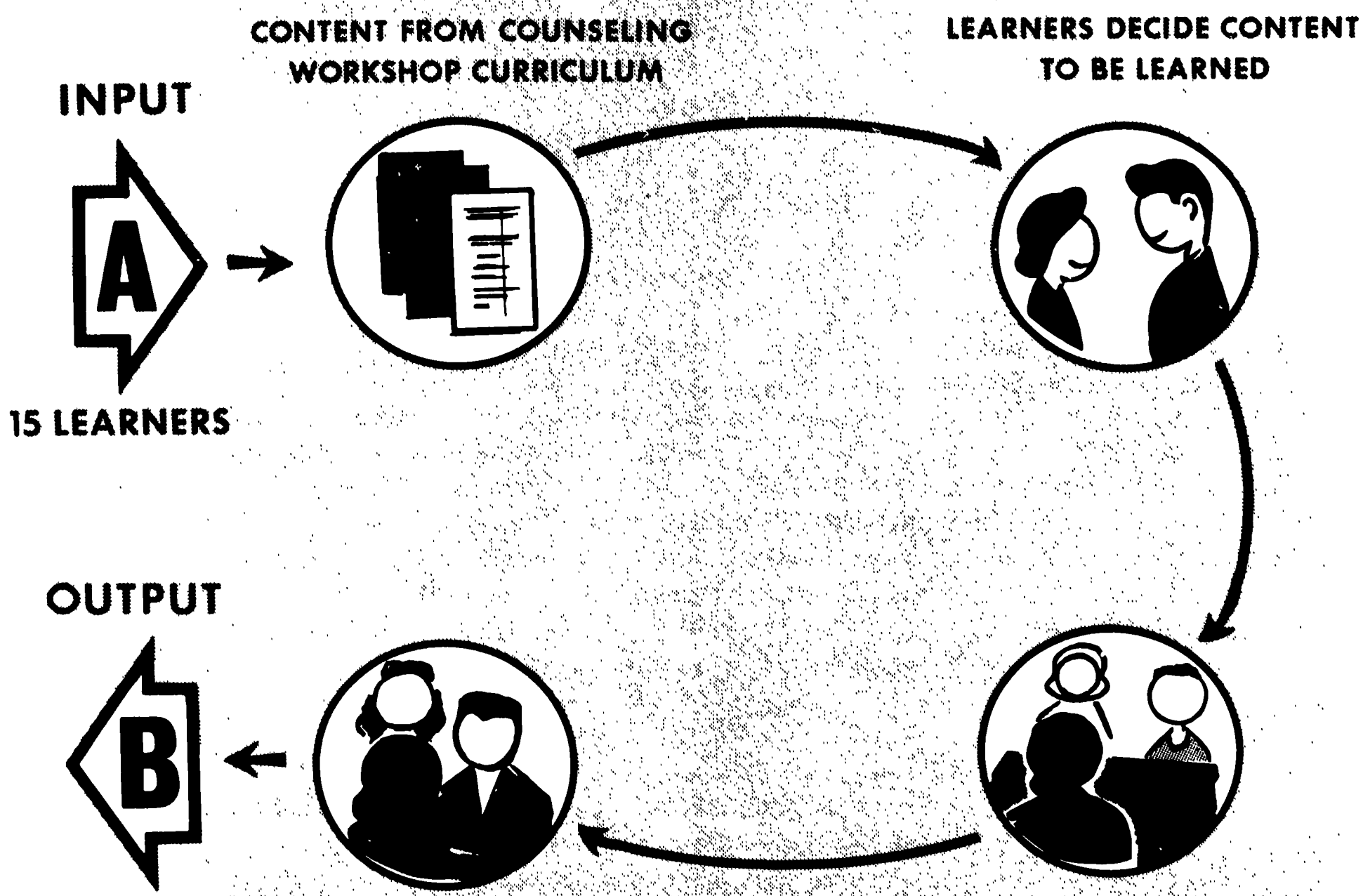

FIGURE 7 - GROUP COUNSELING SUBSYSTEM

A Typical Schedule

In most instances, a learner's schedule in the UM-ABE system is divided into regular fifty minute periods. While the primary format is individual study (I.S.) in the various academic areas, time is also alloted for workshops, and a period of "learner's choice" is included as illustrated in Figure 8.

A learner, for example, might study multiplication tables through 9 and solve multiplication problems, then study reading, followed by taking a progress test in reading. Another period might be devoted to language, with emphasis on use of apostrophes. Still another period might include a group counseling session in which the learners elect to study proper dress. In the schedule illustrated in Figure 8, a learner might decide to continue studying apostrophes during his free choice period. The last period might be spent in social studies, concentrating on historical accounts of the exploration of America, for example. By using such a procedure

- a learner can learn at his own speed; and
- a learner progresses through each area of the curriculum more or less at an even pace, thus maintaining his interest.

In the UM-ABE system further study of the formal time structure may be indicated. Just the fact that the class period structure is like that used in the public schools which didn't "reach" the adult learners when they were youth, may be reason enough to question this pattern of time allocation. The period structure is, however, easy to administer due to the great amount of learning materials which the system dictates.

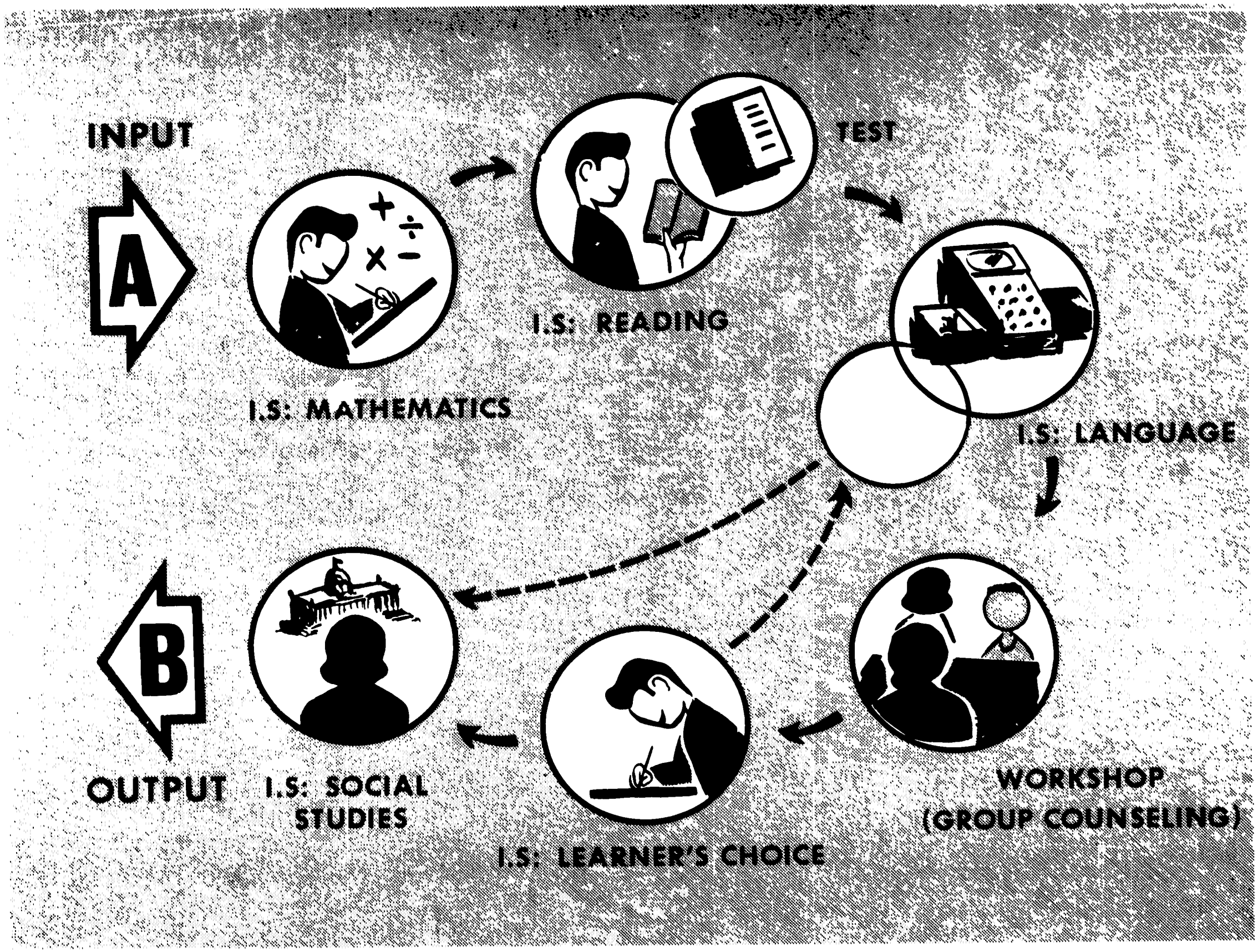

FIGURE 8 - A TYPICAL SCHEDULE

SUMMARY

Building upon a basic illustration of a hardware system, the UM-ABE system has been described as a series of subsystems designed to effect behavioral change in under-educated adults. These subsystems include diagnostic testing, individual counseling, teaching-learning, achievement testing, and group counseling workshops. Further, a typical individual schedule has been described.

Each of the subsystems is basic to the success of the total UM-ABE system. It must be remembered, however, that the total system, as well as its component parts, is structured around certain psychological theories and curriculum building principles. These important components are as follows:

1. A client can enter the system at any time during the school year.
2. Diagnostic tests and face-to-face confirmation of results are used to determine at what point each client should enter the system.
3. The teacher develops a specific curriculum for the client to study.
4. With the help of a counselor or a teacher, the client sets his own educational goal, be it an eighth grade education or a high school equivalency certificate.
5. Learning is primarily carried out through individual study.
6. Each learner can learn at his own speed.
7. The content of the curriculum is meaningful to adult learners.
8. Since various teaching-learning media are used, a learner who has difficulty learning via one medium has a chance to learn via another medium.
9. A learner can be shunted to a remedial track if needed.
10. Learners can receive individual help when needed since teachers are not bound to the traditional group lecture format.
11. Materials used in the curriculum are tailor-made to meet local conditions. Learners, hence, are not limited to study in a curriculum which uses only materials designed by a commercial publisher for a national clientele.
12. Feedback loops are built into the subsystem. This allows for modifying any part of a subsystem without changing the entire system.
13. Learners are motivated by helping to decide the course content in counseling workshops.

14. The socialization aspect of education is fulfilled by formal group counseling sessions and by the learners' informal interaction when helping each other in individual learning situations.
15. Teaching-learning experiences are designed so that theory is applied to practical life problems.
16. The subsystems are success-oriented, used with clientele groups whose backgrounds are failure-oriented.
17. The environments for learning, in the life space (largely the ghetto) of the learners, is permissive and threat-free.
18. The learners become active participants by using individualized teaching as the major format of the teaching-learning subsystem.
19. The curriculum has been structured, through experience, to provide the learners with step-by-step experiences based upon their backgrounds.
20. Learners are given immediate feedback of results. After learning new concepts, principles, and skills, progress tests are taken and scored immediately.
21. The fifty minute period structure allows for distributed learning and practice, thus facilitating learning.
22. Affective change takes place in workshop discussions where peer group pressure is used to advantage.
23. The individualized approach places the responsibility for learning on the learner, thus developing a sense of personal worth and pride.
24. The UM-ABE system is functional, developed by experience with previous learners.
25. Lastly, the dedicated teachers, aides, counselors and researchers are highly sensitized to the needs and aspirations of their learners. If there is a Hawthorne effect, it (or a similarly based "effect") is operating by the genuine concern and empathy which is translated to the learners.

In the next sections, the specific step-by-step curriculum is presented. This is followed by the conclusion, summary and sources of instructional material.

THE CURRICULUM

It must first be noted that any curriculum based on individualized instruction is purely relative. That is, the curriculum is only as good as its ability to close every gap in understanding that a teacher detects in a learner, and it changes daily, just as the learner does. If the curriculum does not fulfill the immediate needs of each learner, individualized instruction is not achieved. The curriculum must be able to provide for an immediate reaction, responding *NOW* to the learning demands of each learner on his own functioning level. Any written curriculum in individualized instruction therefore, can serve only as a model, out-dated before it is written, but still an example of the vital, growing core of experiences available for use in working with the adult learner in a basic education experience.

One of the first considerations in devising an individualized instruction curriculum is to provide an abundance of material at each step of the sequential arrangement so that even the slowest student has ample opportunity to master one concept before moving on to the next. Because of this, it has become essential for teachers continually to supplement the curriculum in their respective areas with copies of teacher-made exercises remaining always on hand in sequential order in file cabinets in their classrooms. Learners need to do only as much as is necessary in order to fully understand a concept; thus, those with more ability may do less in quantity for a given level of achievement.

Another consideration is that materials be kept to a minimum length—a number of short exercises are preferable to a few long ones. In this way a learner is allowed to digest one idea at a time, each one building on the one before, so that the learner is provided with a multitude of easily foreseeable and attainable goals. Such a procedure allows for a series of immediate success experiences.

Finally, the curriculum should provide experiences appropriate for *adult* learners. Materials that are childish or dull defeat their own purposes, just as do materials that are either too easy or too difficult for the individual using them. The idea is to fit the curriculum to each individual learner.

The curriculum of the UM-ABE system is described in the following pages. Presented are the detailed, step-by-step, teaching-learning units included in the reading, language, mathematics, and social studies curricula, as well as suggested topics in the counseling workshop curriculum.

Both teacher-made and commercially published teaching-learning media are used in the curricula and identified in the following pages. It is pointed out that the commercial materials suggested here are neither the only nor the best materials available. Rather, the selection merely indicates that an ABE teacher felt that the materials were appropriate for a given unit of study.

READING CURRICULUM

Because of the nature of individualized instruction, a great part of the reading curriculum consists of teacher-made exercises. Where published materials are used, the teacher chooses carefully those activities that fit the level on which a learner is capable of working.

Since most learners function simultaneously on varying levels in the different reading skills (that is, they may be on one level in finding facts, another in reasoning, and yet another in word analysis), the responsibility for implementing appropriate individualizing in the attempt to equalize a learner's proficiency in all reading areas lies with the teacher.

Constructing a curriculum which is totally sequentialized in each of the separate reading skills, and demonstrating how these areas fit together seems an impractical task. The following outline lists areas covered and materials used in the UM-ABE reading curriculum.

1.	Diagnostic Test		Teacher-made Test
2.	Diagnostic Test	Scott-Foresman *Tactics I*	Units (I, V, VI, VII)
3.	Reading Readiness	BRL *Sullivan Programmed Reading*	Books A, B, C, D
4.	Primary level sight vocabulary and word recognition	BRL *Sullivan Programmed Reading*	Books 1-12 and accompanying readers
5.	Word and sentence meaning	BRL *Sullivan Programmed Reading*	Books 1-12 and accompanying readers
6.	Recognition of vowels and consonants		Teacher-made Exercises
7.	Consonants C and G		Teacher-made Exercises
8.	Filmstrip:	McGraw-Hill "Tricky Consonants"	Frames 5-15
9.	Consonant Blends	Bell & Howell Language Master Cards	Teacher-made Cards
10.	Consonant Blends		Teacher-made Flash Cards
11.	Words	McGraw-Hill Webster Word Wheels	1-13 & 30-40

12.	Silent Consonants		Teacher-made Exercises
13.	Long and short vowels		Teacher-made Flash Cards No. 2
14.	Long and short vowels		Teacher-made Tapes
15.	Long and short vowel sounds		Teacher-made Exercises
16.	Letter Patterns		Teacher-made Exercises
17.	Special Vowel Sounds		Teacher-made Exercises
18.	Special Vowel Sounds	Bell & Howell Language Master Cards	Teacher-made Cards
19.	Vowel Sounds Review		Teacher-made Exercises
20.	Vowel Sounds Review-Word Games	Milton Bradley *Consonant Lotto* *Vowel Lotto* Dexter & Westbrook *Fun With Words*	
21.	Number of syllables in a word		Teacher-made Exercises
22.	Filmstrip	McGraw-Hill "Studying Long Words"	Frames 16-25

[illegible] Curriculum	[illegible] Material	Pages and/or References
23. Studying long words		Teacher-made Tape
24. Studying long words		Teacher-made Flash Cards
25. Studying long words	Bell & Howell Language Master Cards	Teacher-made Cards
26. Dividing words into syllables		Teacher-made Exercises
27. Filmstrip	McGraw-Hill "Studying Long Words"	Frames 26-42
28. Accent		Teacher-made Tape
29. Prefixes		Teacher-made Exercises
30. Prefixes	McGraw-Hill Webster Word Wheels	24-29 & 41-54
31. Prefixes	Bell & Howell Language Master Cards	Teacher-made Cards
32. Suffixes		Teacher-made Exercises
33. Suffixes	McGraw-Hill Webster Word Wheels	15-23 & 55-63
34. Word roots		Teacher-made Exercises

35.	Diagnostic Test		Teacher-made Test
36.	Diagnostic Tests	Scott-Foresman *Tactics I*	Units II, VIII, X
37.	Main idea of a sentence		Teacher-made Exercises
38.	Main idea of a paragraph		Teacher-made Exercises
39.	Main ideas and details		Teacher-made Exercises
40.	Facts	SRA *Reading Lab* *Power Builders*	IIIA
41.	Main ideas	SRA *Reading Lab* *Power Builders*	IIIA
42.	Inferences	SRA *Reading Lab* *Power Builders*	IIIA
43.	Inferences	McGraw-Hill *New Practice Readers*	Books D, E, F, G
44.	Main ideas	McGraw-Hill *New Practice Readers*	Books D, E, F, G

45.	Problem pronouns	McGraw-Hill *New Practice Readers*	Books D, E, F, G
46.	Facts	McGraw-Hill *New Practice Readers*	Books D, E, F, G
47.	Speed	EDL *Controlled Reader*	Books GH and accompanying film strips
48.	Concentration	EDL *Controlled Reader*	Books GH and accompanying film strips
49.	Main Ideas	EDL *Controlled Reader*	Books GH and accompanying film strips
50.	Inferences	EDL *Controlled Reader*	Books GH and accompanying film strips
51.	Speed	SRA *Reading Lab* *Rate Builders*	IIIA
52.	Facts	SRA *Reading Lab* *Rate Builders*	IIIA
53.	Main ideas	SRA *Reading Lab* *Rate Builders*	IIIA

54. Facts	McCall-Crabbs *Standard Test Lessons*	Books D and E
55. Inferences	McCall-Crabbs *Standard Test Lessons*	Books D and E
[illegible]. Word meaning from context	Barnell Loft *Using the Context*	Books C, D, E, F
57. Main idea	Barnell Loft *Using the Context*	Books C, D, E, F

LANGUAGE CURRICULUM

The UM-ABE language curriculum is designed to integrate traditional grammar with language skills. This is accomplished through both individualized written exercises and oral English. Vast amounts of teacher-made materials provide the core of the written exercises with the commercially produced material used in a supplemental way. The oral classes are group activities: learners participate in such exercises as language drills to help them become accustomed to hearing themselves and others speak correctly. Public speaking exercises are designed to give them confidence in appearing before a group. In addition, learners are taught library reference skills in their language classes.

Learners who are not at least on a fourth grade reading level do not take a separate class in language. Therefore, nothing appears in the language curriculum below that level except for certain review exercises.

[illegible]	[illegible]	[illegible] and/or References
1. Diagnostic Test		Teacher-made Test
2. Writing the alphabet capital and small letters	Steck-Vaughn *I Want To Learn English*	Pages 4-6
3. Writing the alphabet capital and small letters	Steck-Vaughn *I Want To Learn English*	Pages 4 & 5
4. Writing numbers	Steck-Vaughn *I Want To Learn English*	Page 4
5. Recognizing and using capital letters	Steck-Vaughn *I Want To Learn English*	Page 6
6. Using the capital I	Steck-Vaughn *I Want To Learn English*	Page 7
7. Distinguishing between sentences and fragments	Steck-Vaughn *I Want To Learn English*	Page 8
8. Distinguishing between sentences and fragments	McCormick-Mathers *Individualized Corrective English*	Book 4 Pages 2, 50 & 87
9. Distinguishing between sentences and fragments	McCormick-Mathers *Individualized Corrective English*	Book 5 Page 2
10. Distinguishing between sentences and fragments	McCormick-Mathers *Individualized Corrective English*	Book 6 Page 2

Language Curriculum	Published Material	Pages and/or References
11. Distinguishing between sentences and fragments		Teacher-made Exercises
12. Distinguishing between sentences and fragments	Follett *Individualized English*	Set J Pages 24 & 25
13. The four kinds of sentences	Steck-Vaughn *Learning and Writing English*	Pages 8-10
14. The four kinds of sentences	Steck-Vaughn *I Want To Learn English*	Pages 10 & 11
15. The four kinds of sentences	McCormick-Mathers *Individualized Corrective English*	Book 4 Pages 51 & 88
16. The four kinds of sentences	McCormick-Mathers *Individualized Corrective English*	Book 5 Page 3
17. The four kinds of sentences		Teacher-made Exercises
18. Distinguishing among the kinds of sentences; punctuating the kinds of sentences	Steck-Vaughn *I Want To Learn English*	Page 11
19. Distinguishing among the kinds of sentences; punctuating the kinds of sentences	McCormick-Mathers *Individualized Corrective English*	Book 4
20. Distinguishing among the kinds of sentences; punctuating the kinds of sentences	McCormick-Mathers *Individualized Corrective English*	Book 6 Page 3

21.	Distinguishing among the kinds of sentences; punctuating the kinds of sentences		Teacher-made Exercises
22.	Writing the four kinds of sentences	Steck-Vaughn *Learning and Writing English*	Pages 8-10
23.	Writing the four kinds of sentences	Steck-Vaughn *I Want To Learn English*	Pages 11 & 12
24.	Writing the four kinds of sentences		Teacher-made Exercises
25.	Nouns	Steck-Vaughn *Learning and Writing English*	Pages 108, 110 & 112
26.	Nouns	McCormick-Mathers *Individualized Corrective English*	Book 4 Pages 4-6 & 82
27.	Nouns	McCormick-Mathers *Individualized Corrective English*	Book 5 Pages 4-9 & 84
28.	Nouns	McCormick-Mathers *Individualized Corrective English*	Book 6 Pages 4-7
29.	Nouns		Teacher-made Exercises
30.	Nouns in sentences		Teacher-made Exercises
31.	EDL Reference Kit CCC		Cards 1-5

Language Curriculum	Published Material	Pages and/or References
32. Nouns as subjects		Teacher-made Exercises
33. Principal parts of verbs	Steck-Vaughn *Learning and Writing English*	Pages 38, 43, 44, 67, 69-74
34. Principal parts of verbs	Steck-Vaughn *I Want To Learn English*	Pages 16, 17, 24-27
35. Principal parts of verbs	McCormick-Mathers *Individualized Corrective English*	Book 4 Pages 7-11, 19, 37, 38, 57 & 83
36. Principal parts of verbs	McCormick-Mathers *Individualized Corrective English*	Book 5 Pages 10, 12, 20-25, 40, 57, 58, 69 & 85
37. Principal parts of verbs	McCormick-Mathers *Individualized Corrective English*	Book 6 Pages 9-12, 70 & 73
38. Principal parts of verbs		Teacher-made Exercises
39. Principal parts of verbs	Follett *Individualized English*	Set J - No. 17 - No. 19
40. Finding verbs in sentences		Teacher-made Exercises
41. Finding subjects and verbs in sentences	Steck-Vaughn *Learning and Writing English*	Page 91

42.	Finding subjects and verbs in sentences	McCormick-Mathers *Individualized Corrective English*	Page 66
43.	Finding subjects and verbs in sentences		Teacher-made Exercises
44.	EDL Reference Kit CCC		Cards 6-10
45.	Making subjects and verbs agree	Steck-Vaughn *Learning and Writing English*	Pages 35, 49-52, & 77
46.	Making subjects and verbs agree	Steck-Vaughn *I Want To Learn English*	Pages 22 & 23
47.	Making subjects and verbs agree	McCormick-Mathers *Individualized Corrective English*	Book 4 Pages 20-24, 39, 40 & 67
48.	Making subjects and verbs agree	McCormick-Mathers *Individualized Corrective English*	Book 5 Pages 11 & 54
49.	Making subjects and verbs agree	McCormick-Mathers *Individualized Corrective English*	Book 6 Pages 24, 25 & 69
50.	Making subjects and verbs agree		Teacher-made Exercises
51.	Making subjects and verbs agree	Follett *Individualized English*	Set J No. 13 - No. 16
52.	Finding complete and simple subjects and verbs	McCormick-Mathers *Individualized Corrective English*	Book 5 Page 50

		Publisher	
53.	Finding complete and simple subjects and verbs	McCormick-Mathers *Individualized Corrective English*	Book 6 Pages 18-20, & 83
54.	Finding complete and simple subjects and verbs		Teacher-made Exercises
55.	Prepositions	McCormick-Mathers *Individualized Corrective English*	Book 6 Pages 34 & 35
56.	Prepositions		Teacher-made Exercises
57.	Prepositional phrases - nouns as objects of prepositions		Teacher-made Exercises
58.	Finding prepositional phrases in sentences		Teacher-made Exercises
59.	Pronouns	Steck-Vaughn *Learning and Writing English*	Page 105
60.	Pronouns	Steck-Vaughn *I Want To Learn English*	Page 18
61.	Pronouns	McCormick-Mathers *Individualized Corrective English*	Book 4 Pages 34-36
62.	Pronouns	McCormick-Mathers *Individualized Corrective English*	Book 5 Pages 35 & 86

		Published Material	Page and/or Reference
63.	Pronouns	McCormick-Mathers *Individualized Corrective English*	Book 6 Pages 36-39
64.	Pronouns		Teacher-made Exercises
65.	Pronouns	Follett *Individualized English*	Set J No. 1 - No. 7
66.	EDL Reference Kit DDD		Cards 1-5
67.	Adjectives	McCormick-Mathers *Individualized Corrective English*	Book 4 Pages 52, 53 & 71
68.	Adjectives	McCormick-Mathers *Individualized Corrective English*	Book 5 Pages 51-53 & 87
69.	Adjectives	McCormick-Mathers *Individualized Corrective English*	Book 6 Pages 50, 51 & 54
70.	Adjectives		Teacher-made Exercises
71.	Finding adjectives in sentences	McCormick-Mathers *Individualized Corrective English*	Book 4 Page 84
72.	Finding adjectives in sentences		Teacher-made Exercises
73.	Pronouns as adjectives		Teacher-made Exercises

74.	Adverbs	McCormick-Mathers *Individualized Corrective English*	Book 5 Pages 66-68 & 88
75.	Adverbs	McCormick-Mathers *Individualized Corrective English*	Book 6 Pages 52-54
76.	Adverbs		Teacher-made Exercises
77.	Adverbs	Follett *Individualized English*	Set J No. 10 & No. 12
78.	Adverbs in sentences		Teacher-made Exercises
79.	EDL Reference Kit DDD		Cards 6-10
80.	Introduction to punctuation		Teacher-made Exercises
81.	Using periods, question marks and exclamation points	Steck-Vaughn *Learning and Writing English*	Page 90
82.	Using periods, question marks and exclamation points		Teacher-made Exercises
83.	Using periods, question marks and exclamation points	Follett *Individualized English*	Set J No. 52 - No. 55
84.	Using the comma	McCormick-Mathers *Individualized Corrective English*	Book 4 Pages 58 & 74

85.	Using the comma	McCormick-Mathers *Individualized Corrective English*	Book 5 Page 42
86.	Using the comma	McCormick-Mathers *Individualized Corrective English*	Book 6 Page 28
87.	Using the comma		Teacher-made Exercises
88.	Using the comma	Follett *Individualized English*	Set J No. 60 and 64-66
89.	Capitalization	Steck-Vaughn *Learning and Writing English*	Pages 11-15, 19, 20 & 96-98
90.	Capitalization	Steck-Vaughn *I Want To Learn English*	Pages 56-59
91.	Capitalization	McCormick-Mathers *Individualized Corrective English*	Book 4 Pages 12, 25, 26 & 41
92.	Capitalization	McCormick-Mathers *Individualized Corrective English*	Book 5 Pages 13, 27 and 41
93.	Capitalization	McCormick-Mathers *Individualized Corrective English*	Book 6 Page 14
94.	Capitalization		Teacher-made Exercises

95.	Capitalization	Follett *Individualized English*	Set J No. 83 - No. 86
96.	Capitalization and punctuation	McCormick-Mathers *Individualized Corrective English*	Book 4 Pages 13, 15, 31, 47, 67 and 95
97.	Capitalization and punctuation	McCormick-Mathers *Individualized Corrective English*	Book 5 Pages 28, 31, 47, 63, 79 & 92
98.	Capitalization and punctuation	McCormick-Mathers *Individualized Corrective English*	Book 6 Pages 13, 43, 63, 79 & 93
99.	Capitalization and punctuation		Teacher-made Exercises
100.	Writing sentences	McCormick-Mathers *Individualized Corrective English*	Book 5 Pages 18, 19 & 34
101.	Writing sentences	McCormick-Mathers *Individualized Corrective English*	Book 6 Page 68
102.	Writing sentences		Teacher-made Exercises
103.	Writing letters	Steck-Vaughn *Learning and Writing English*	Pages 23-29, 58, 59 61 & 63
104.	Writing letters	Steck-Vaughn *I Want To Learn English*	Pages 60-65

105.	Writing letters	McCormick-Mathers *Individualized Corrective English*	Book 4 Pages 59-61 & 78
106.	Writing letters	McCormick-Mathers *Individualized Corrective English*	Book 5 Pages 14, 15, 60-62 & 91
107.	Writing letters	McCormick-Mathers *Individualized Corrective English*	Book 6 Pages 44-46, 76, 77 & 91
108.	Writing letters		Teacher-made Exercises
109.	EDL Reference Kit EEE		Cards 1-5
110.	Prepositional phrases used as adjectives and adverbs		Teacher-made Exercises
111.	Linking verbs		Teacher-made Exercises
112.	Subjective complements		Teacher-made Exercises
113.	Subjective complements	Follett *Individualized English*	Set J - No. 9
114.	EDL Reference Kit EEE		Cards 6-10
115.	Direct objects	McCormick-Mathers *Individualized Corrective English*	Book 6 Pages 21 & 89

Language Curriculum	Published Material	Pages and/or References
116. Direct objects		Teacher-made Exercises
117. Transitive and intransitive verbs		Teacher-made Exercises
118. Labeling parts of speech in sentences	McCormick-Mathers *Individualized Corrective English*	Book 4 Page 54
119. Labeling parts of speech in sentences		Teacher-made Exercises
120. Conjunctions	McCormick-Mathers *Individualized Corrective English*	Book 6 Page 55
121. Conjunctions		Teacher-made Exercises
122. Conjunctions	Follett *Individualized English*	Set J - No. 22
123. EDL Reference Kit FFF		Cards 1-5
124. Indirect objects	McCormick-Mathers *Individualized Corrective English*	Book 6 Pages 22 & 89
125. Indirect objects		Teacher-made Exercises
126. Distinguishing between direct and indirect objects		Teacher-made Exercises
127. Appositives		Teacher-made Exercises

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128. Finding appositives in sentences		Teacher-made Exercises
129. EDL Reference Kit FFF		Cards 6-10
130. Subject and object pronouns	Steck-Vaughn *Learning and Writing English*	Page 66
131. Subject and object pronouns	McCormick-Mathers *Individualized Corrective English*	Book 5 Pages 36-38 & 55
132. Verb usage	Steck-Vaughn *Learning and Writing English*	Pages 37 & 38
133. Verb usage	McCormick-Mathers *Individualized Corrective English*	Book 4 Pages 55, 68 & 73
134. Verb usage	McCormick-Mathers *Individualized Corrective English*	Book 5 Pages 26, 39 & 56
135. Verb usage	McCormick-Mathers *Individualized Corrective English*	Book 6 Pages 41, 42, 71 & 72
136. Verb usage		Teacher-made Exercises
137. The apostrophe	Steck-Vaughn *Learning and Writing English*	Page 107
138. The apostrophe	Steck-Vaughn *I Want To Learn English*	Page 35

139.	The apostrophe	McCormick-Mathers *Individualized Corrective English*	Book 4 Page 14
140.	The apostrophe	McCormick-Mathers *Individualized Corrective English*	Book 5 Pages 29 & 30
141.	The apostrophe	McCormick-Mathers *Individualized Corrective English*	Book 6 Page 15
142.	The apostrophe		Teacher-made Exercises
143.	Quotations	Steck-Vaughn *Learning and Writing English*	Page 99
144.	Quotations	McCormick-Mathers *Individualized Corrective English*	Book 4 Pages 75 & 76
145.	Quotations	McCormick-Mathers *Individualized Corrective English*	Book 5 Page 73
146.	Quotations	McCormick-Mathers *Individualized Corrective English*	Book 6 Pages 59-61
147.	Quotations		Teacher-made Exercises
148.	Quotations	Follett *Individualized English*	Set J No. 78 - No. 81

149.	Synonyms, antonyms and hymonyms	Steck-Vaughn *Learning and Writing English*	Pages 39, 45, 53, 54, 79 & 83
150.	Synonyms, antonyms and hymonyms	Steck-Vaughn *I Want To Learn English*	Pages 31 & 32
151.	Synonyms, antonyms and hymonyms	McCormick-Mathers *Individualized Corrective English*	Book 4 Pages 45, 56 & 77
152.	Synonyms, antonyms and hymonyms	McCormick-Mathers *Individualized Corrective English*	Book 5 Pages 59, 76, 77 & 89
153.	Synonyms, antonyms and hymonyms	McCormick-Mathers *Individualized Corrective English*	Book 6 Pages 74 & 75
154.	Synonyms, antonyms and hymonyms		Teacher-made Exercises
155.	Paragraphs	Steck-Vaughn *Learning and Writing English*	Pages 92-95
156.	Paragraphs	Steck-Vaughn *I Want To Learn English*	Page 40
157.	Paragraphs	McCormick-Mathers *Individualized Corrective English*	Book 4 Pages 29, 42-44, 92 & 93
158.	Paragraphs	McCormick-Mathers *Individualized Corrective English*	Book 5 Pages 44-46, 78 & 90

159. Paragraphs	McCormick-Mathers *Individualized Corrective English*	Book 6 Pages 29-31, 62 & 90
160. Paragraphs		Teacher-made Exercises
161. Library		

The library and its use does not fit into a particular subject matter area in the curriculum. Prior to a field trip to the public library, learners are acquainted with the function and use of the library through teacher-made material.

THE MATHEMATICS CURRICULUM

The mathematics curriculum is based upon programmed materials, supplemented by numerous skill exercises. Mathematics concepts are emphasized, and learners work with the word problems as well as with those involving only computation. An attempt to make the work meaningful to learners is made through practical application in the various skill areas.

	Diagnostic Test		Teacher-made Test
1.	Formation of the numerals 1-4	McGraw-Hill *Programmed Math*	Book 1 Pages 1-3
2.	Problem Solving: Addition	McGraw-Hill *Programmed Math*	Problem Book 1 Pages 1-4
3.	Progress Test: Addition		Teacher-made Test
4.	Formation of the numerals 4-8	McGraw-Hill *Programmed Math*	Book 1 Pages 13-24
5.	Problem Solving: Addition	McGraw-Hill *Programmed Math*	Problem Book 1 Pages 5-8
6.	Progress Test: Addition		Teacher-made Test
7.	Formation of number 9	McGraw-Hill *Programmed Math*	Book 1 Pages 26-28
8.	Concept of number	McGraw-Hill *Programmed Math*	Book 1 Pages 26-30
9.	Concept of numbers as an abstraction for concrete objects	McGraw-Hill *Programmed Math*	Book 1 Page 30
10.	Counting	McGraw-Hill *Programmed Math*	Book 1 Pages 31-36

11.	Improvised exercises in number concepts	Cusinaire Rods	
12.	Counting discs	Milton Bradley	
13.	Progress Test: Addition		Teacher-made Test
14.	Problem Solving: Addition	McGraw-Hill *Programmed Math*	Problem Book 1 Pages 11 & 12
15.	Adding as a means of counting	McGraw-Hill *Programmed Math*	Problem Book 1 Pages 37-42
16.	Problem Solving: Addition	McGraw-Hill *Programmed Math*	Problem Book 1 Pages 13 & 14
17.	Horizontal adding of two numbers with sums no greater than 9	McGraw-Hill *Programmed Math*	Book 1 Pages 43-47
18.	In-book exam: Addition	McGraw-Hill *Programmed Math*	Book 1 Page 48
19.	Problem Solving: Addition	McGraw-Hill *Programmed Math*	Problem Book 1 Pages 15 & 16
20.	Addition facts	Garrard Press *Dolch Popper Numbers*	Flash Cards
21.	Horizontal adding of three, four and five numbers with sums no greater than 9	McGraw-Hill *Programmed Math*	Book 1 Pages 49-60

22.	Problem Solving: Addition	McGraw-Hill *Programmed Math*	Problem Book 1 Pages 17 & 18
23.	Progress Test: Addition		Teacher-made Test
24.	Problem Solving: Addition	McGraw-Hill *Programmed Math*	Problem Book 1 Pages 19 & 20
25.	Vertical adding of combinations of two to nine numbers (1-9)	McGraw-Hill *Programmed Math*	Book 1 Pages 61-73
26.	Problem Solving: Addition	McGraw-Hill *Programmed Math*	Problem Book 1 Pages 21 & 22
27.	Formation of the number 0	McGraw-Hill *Programmed Math*	Book 1 Page 74
28.	Association of 0 with the empty set	McGraw-Hill *Programmed Math*	Book 1 Page 75
29.	Adding combinations of two to nine numbers plus	McGraw-Hill *Programmed Math*	Book 1 Pages 76-79
30.	Problem Solving: Addition	McGraw-Hill *Programmed Math*	Problem Book 1 Pages 25 & 26
31.	0 as a place holder	McGraw-Hill *Programmed Math*	Book 1 Page 79

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32.	The numeral 10	McGraw-Hill *Programmed Math*	Book 1 Page 79
33.	Concept of place notation through association of numbers with columns of dimes and cents	McGraw-Hill *Programmed Math*	Book 1 Pages 80-91
34.	Progress Test: Addition		Teacher-made Test
35.	Problem Solving: Addition	McGraw-Hill *Programmed Math*	Problem Book 1 Pages 27 & 28
36.	Simultaneous vertical addition of cents to cents and dimes to dimes	McGraw-Hill *Programmed Math*	Book 1 Pages 92 & 93
37.	Problem Solving: Addition	McGraw-Hill *Programmed Math*	Problem Book 1 Pages 29 & 30
38.	Transition from dimes and cents to tens and ones	McGraw-Hill *Programmed Math*	Problem Book 1 Page 94
39.	Progress Test: Addition		Teacher-made Test
40.	Adding combinations of 2 & 3 two-digit numbers	McGraw-Hill *Programmed Math*	Book 1 Pages 95 & 96
41.	Problem Solving: Addition	McGraw-Hill *Programmed Math*	Book 1 Pages 31 & 32

42.	Place notations for numbers through hundred thousands	McGraw-Hill *Programmed Math*	Book 2 Pages 1-23
43.	Problem Solving: Advanced Addition	McGraw-Hill *Programmed Math*	Problem Book 2 Pages 1-8
44.	Progress Test: Addition		Teacher-made Test
45.	Progress Test: Addition		Teacher-made Test
46.	Adding numbers up to six digits with sums no greater than 999,999	McGraw-Hill *Programmed Math*	Book 2 Pages 23-25
47.	Place notation for numbers in the millions	McGraw-Hill *Programmed Math*	Book 2 Pages 25 & 26
48.	Adding numbers in combinations of ones through millions	McGraw-Hill *Programmed Math*	Book 2 Page 27
49.	Employing one to one correspondence with sets of objects	McGraw-Hill *Programmed Math*	Book 2 Pages 27-30
50.	Transition from dimes and cents to tens and ones	McGraw-Hill *Programmed Math*	Book 2 Pages 31-33
51.	Carrying from ones to tens column	McGraw-Hill *Programmed Math*	Book 2 Pages 34-36
52.	Problem Solving: Advanced Addition	McGraw-Hill *Programmed Math*	Problem Book 2 Pages 9 & 10

53.	Progress Test: Advanced Addition		Teacher-made Test
54.	Vertical addition of five or more 2 digit numbers and one 2 digit number combinations	McGraw-Hill *Programmed Math*	Book 2 Pages 37-42
55.	Problem Solving: Advanced Addition	McGraw-Hill *Programmed Math*	Problem Book 2 Pages 11-14
56.	Carrying 1 in one to four places in adding combinations through the ten thousands	McGraw-Hill *Programmed Math*	Book 2 Pages 43-48
57.	Problem Solving: Advanced Addition	McGraw-Hill *Programmed Math*	Problem Book 2 Pages 15 & 16
58.	Carrying 1 in one to six places in adding combinations of numbers through the millions	McGraw-Hill *Programmed Math*	Book 2 Pages 49-73
59.	Problem Solving: Advanced Addition	McGraw-Hill *Programmed Math*	Problem Book 2 Pages 17-24
60.	Progress Test: Advanced Addition		Teacher-made Tests
61.	Progress Test: Advanced Addition		Teacher-made Test
62.	Carrying up to 9 in one to five places in adding combinations of numbers through hundred thousands	McGraw-Hill *Programmed Math*	Book 2 Pages 73-92

63.	Problem Solving: Advanced Addition	McGraw-Hill *Programmed Math*	Problem Book 2 Pages 25-32
64.	Progress Test: Advanced Addition		Teacher-made Test
65.	Diagnostic Test: Addition of whole numbers	SRA *Computational Skills Kit*	Test No. 1
66.	Addition of whole numbers	Exercise Cards	Cards 1-20
67.	Subtracting whole numbers	Reference Cards	Card No. 1
68.	Subtraction as the removal of objects from a set	McGraw-Hill *Programmed Math*	Book 3 Pages 1-3
69.	Problem Solving: Subtraction	McGraw-Hill *Programmed Math*	Problem Book 3 Pages 1 & 2
70.	Subtraction as the opposite of addition	McGraw-Hill *Programmed Math*	Book 3 Pages 4-7
71.	Subtraction facts	Garrard Press *Dolch Popper Numbers*	Flash Card EA No. 71
72.	Horizontal and vertical subtraction with minuend no greater than 9	McGraw-Hill *Programmed Math*	Book 3 Pages 8-12
73.	Problem Solving: Subtraction	McGraw-Hill	Problem Book 3

Mathematics Curriculum	Published Material	Pages and/or References
74. Progress Test: Subtraction		Teacher-made Test
75. Zero in subtraction	McGraw-Hill *Programmed Math*	Book 3 Pages 13-15
76. Checking subtraction by adding	McGraw-Hill *Programmed Math*	Book 3 Pages 16-19
77. Problem Solving: Subtraction	McGraw-Hill *Programmed Math*	Book 3 Pages 5 & 6
78. Borrowing is subtraction	McGraw-Hill *Programmed Math*	Book 3 Pages 18-88
79. Progress Test: Subtraction		Teacher-made Test
80. Progress Test: Subtraction		Teacher-made Test
81. Problem Solving: Subtraction	McGraw-Hill *Programmed Math*	Problem Book 3 Pages 7-28
82. Progress Test: Subtraction		Teacher-made Test
83. Problems involving two or more consecutive zeros in the minuend	McGraw-Hill *Programmed Math*	Book 3 Pages 89-96
84. Problem Solving: Subtraction	McGraw-Hill *Programmed Math*	Problem Book 3 Pages 29-32

Mathematics Curriculum	Published Material	Pages and/or References
85. Progress Test: Subtraction		Teacher-made Test
86. Progress Test: Subtraction		Teacher-made Test
87. Filmstrip	Eyegate "Addition and Subtraction of Whole Numbers"	No. 162B
88. Diagnostic Test	SRA *Computational Skills Kit*	Test No. 2
89. Subtracting whole numbers	SRA *Computational Skills Kit*	Cards No. 1 - No. 15
90. Subtracting whole numbers	SRA *Computational Skills Kit*	Reference Card No. 2
91. In-book exam	McGraw-Hill *Programmed Math*	Book 3 Page 96
92. Multiplication as repeated addition	McGraw-Hill *Programmed Math*	Book 4 Pages 1-6
93. Problem Solving: Multiplication	McGraw-Hill *Programmed Math*	Problem Book 4 Pages 1 & 2
94. Multiplication tables through 9	McGraw-Hill *Programmed Math*	Book 4 Pages 7-18

Mathematics Curriculum	Published Material	Pages and/or References
95. Problem Solving: Multiplication	McGraw-Hill *Programmed Math*	Problem Book 4 Pages 3-7
96. Progress Test		Teacher-made Test
97. 0 as a place holder	McGraw-Hill *Programmed Math*	Book 4 Pages 18 & 19
98. Multiplying one digit numbers & checking by repeated addition	McGraw-Hill *Programmed Math*	Book 4 Pages 20-22
99. Multiplication of numbers through the hundred thousands by one digit numbers	McGraw-Hill *Programmed Math*	Book 4 Pages 22-36
100. Problem Solving: Multiplication	McGraw-Hill *Programmed Math*	Problem Book 4 Pages 8-12
101. Progress Test		Teacher-made Test
102. Progress Test		Teacher-made Test
103. Carrying multiplication from 1 - 2 times	McGraw-Hill *Programmed Math*	Book 4 Pages 36-69
104. Problem Solving: Multiplication	McGraw-Hill *Programmed Math*	Problem Book 4 Pages 13-23
105. Progress Tests		Teacher-made Tests

Mathematics Curriculum		Published Material	Pages and/or References
106.	Multiplying 2-digit numbers by 2-digit numbers	McGraw-Hill *Programmed Math*	Book 4 Pages 70-96
107.	Problem Solving: Multiplication	McGraw-Hill *Programmed Math*	Problem Book 4 Pages 24-32
108.	Progress Test		Teacher-made Test
109.	Progress Test		Teacher-made Test
110.	Diagnostic Tests	SRA *Computational Skills Kit*	Test No. 3
111.	Multiplication of whole numbers	SRA *Computational Skills Kit*	Cards No. 1 - No. 25
112.	Multiplication of whole numbers	SRA *Computational Skills Kit*	Reference Card No. 3
113.	In-book exam	McGraw-Hill *Programmed Math*	Book 4 Page 96
114.	Division as the opposite of multiplication	McGraw-Hill *Programmed Math*	Book 5 Pages 1-4
115.	Short division of numbers with no remainders	McGraw-Hill *Programmed Math*	Book 5 Pages 5-9

Mathematics Curriculum	Published Material	Pages and/or References
116. Problem Solving: Division	McGraw-Hill *Programmed Math*	Book 5 Pages 1 & 2
117. Short division of numbers whose first digits are smaller than the divisor	McGraw-Hill *Programmed Math*	Book 5 Pages 10-12
118. Problem Solving: Division	McGraw-Hill *Programmed Math*	Problem Book 5 Pages 3 & 4
119. Progress Test		Teacher-made Test
120. Division facts	Garrard Press *Dolch Popper Numbers*	Flash Card No. EA 82
121. Checking division by multiplying	McGraw-Hill *Programmed Math*	Book 5 Pages 13-24
122. Problem Solving: Division	McGraw-Hill *Programmed Math*	Problem Book 5 Pages 5-8
123. Progress Test		Teacher made Test
124. The remainder	McGraw-Hill *Programmed Math*	Book 5 Pages 25-36
125. Filmstrip:	Eyegate "Division with Remainders"	No. 133C
126. Progress Test: Division		Teacher-made Test

Mathematics Curriculum	Published Material	Pages and/or References
127. Problem Solving: Division	McGraw-Hill *Programmed Math*	Problem Book 5 Pages 9-12
128. Short division involving carrying	McGraw-Hill *Programmed Math*	Book 5 Pages 37-48
129. Problem Solving: Division	McGraw-Hill *Programmed Math*	Problem Book 5 Pages 13-16
130. Long division with no borrowing in subtraction	McGraw-Hill *Programmed Math*	Book 5 Pages 49-54
131. Problem Solving: Division	McGraw-Hill *Programmed Math*	Problem Book 5 Pages 17-20
132. Long division involving borrowing in subtraction	McGraw-Hill *Programmed Math*	Book 5 Pages 54-60
133. Progress Test		Teacher-made Test
134. Long division with remainders	McGraw-Hill *Programmed Math*	Book 5 Pages 61-72
135. Filmstrip:	Eyegate "Recording Division"	No. 133-1
136. Problem Solving: Division	McGraw-Hill *Programmed Math*	Problem Book 5 Pages 21-24

Mathematics Curriculum	Published Material	Pages and/or References
137. Progress Test		Teacher-made Test
138. Review of division	McGraw-Hill *Programmed Math*	Book 5 Pages 72-95
139. Division of whole numbers	SRA *Computational Skills Kit*	Test No. 4
140. Division of whole numbers	SRA *Computational Skills Kit*	Cards 1-27
141. Division of whole numbers	SRA *Computational Skills Kit*	Reference Card No. 4
142. Examination	McGraw-Hill *Programmed Math*	Book 5 Page 96
143. Filmstrip:	Eyegate "Multiplication and Division of Whole Numbers"	No. 162C
144. Progress Test: Multiplication		Teacher-made Test
145. Concept of numerator and denominator	McGraw-Hill *Programmed Math*	Book 6 Pages 1-6
146. Problem Solving: Fractions	McGraw-Hill *Programmed Math*	Problem Book 6 Pages 1 & 2

Mathematics Curriculum	Published Material	Pages and/or References
147. Fractions as part of a whole	McGraw-Hill *Programmed Math*	Book 6 Pages 7-10
148. Adding, subtracting, multiplying fractions	McGraw-Hill *Programmed Math*	Book 6 Pages 11-20
149. Diagnostic Test: Addition	SRA *Computational Skills Kit*	Test No. 6 (1-12)
150. Diagnostic Test: Subtraction	SRA *Computational Skills Kit*	Test No. 7 (1-12)
151. Diagnostic Test: Multiplication	SRA *Computational Skills Kit*	Test No. 8 (1-12)
152. Fractions: Addition	SRA *Computational Skills Kit*	Cards 1-5
153. Fractions: Subtraction	SRA *Computational Skills Kit*	Cards 1-8
154. Fractions: Multiplication	SRA *Computational Skills Kit*	Cards 1-6
155. Problem Solving: Fractions	McGraw-Hill *Programmed Math*	Book 6 Pages 3 & 4
156. Progress Test: Fractions		Teacher-made Test

Mathematics Curriculum		Published Material	Pages and/or References
157.	Filmstrip:	Eyegate "Addition and Subtraction of Fractions"	No. 162-1
158.	Problem Solving: Fractions	McGraw-Hill *Programmed Math*	Problem Book 6 Pages 5 & 6
159.	Proper and improper fractions	McGraw-Hill *Programmed Math*	Book 6 Pages 21-24
160.	Progress Test: Fractions		Teacher-made Test
161.	Filmstrip:	Eyegate "Talking About Parts"	No. 133B
162.	Dividing Fractions	McGraw-Hill *Programmed Math*	Book 6 Pages 25-30
163.	Diagnostic Test	SRA *Computational Skills Kit*	Test No. 9 (1-15)
164.	Dividing Fractions	SRA *Computational Skills Kit*	Cards 1-5
165.	Dividing Fractions	SRA *Computational Skills Kit*	Reference Card No. 5
166.	Using whole numbers in basic operations with fractions	McGraw-Hill *Programmed Math*	Book 6 Pages 31-33

Mathematics Curriculum	Published Material	Pages and/or References
167. Reducing fractions to lowest terms	McGraw-Hill *Programmed Math*	Book 6 Pages 34-48
168. Problem Solving: Division	McGraw-Hill *Programmed Math*	Problem Book 6 Pages 7-10
169. Filmstrip:	Eyegate "Equal Groups 4 and 5"	No. 133D
170. Progress Test: Fractions and Division		Teacher-made Test
171. Mixed numbers in basic operation	McGraw-Hill *Programmed Math*	Book 6 Pages 49-68
172. Progress Test: Fractions		Teacher-made Test
173. Diagnostic Test: Addition	SRA *Computational Skills Kit*	Test No. 6 (13-16)
174. Diagnostic Test: Subtraction	SRA *Computational Skills Kit*	Test No. 7 (6-9)
175. Diagnostic Test: Multiplication	SRA *Computational Skills Kit*	Test No. 8 (6-13)
176. Diagnostic Test: Division	SRA *Computational Skills Kit*	Test No. 9 (6-16)

Mathematics Curriculum		Published Material	Pages and/or References
177.	Addition of mixed numbers	SRA *Computational Skills Kit*	Cards 13-16
178.	Subtraction of mixed numbers	SRA *Computational Skills Kit*	Cards 5-9
179.	Multiplication of mixed numbers	SRA *Computational Skills Kit*	Cards 6-13
180.	Division of mixed numbers	SRA *Computational Skills Kit*	Cards 6-16
181	Concept of addition, subtraction, multiplication and division of mixed numbers	SRA *Computational Skills Kit*	Reference Card No. 5
182.	Problem Solving: Fractions	McGraw-Hill *Programmed Math*	Book 6 Pages 11-14
183.	Changing improper fractions to mixed numbers	McGraw-Hill *Programmed Math*	Book 6 Pages 6-9
184.	Borrowing a fraction from a whole number in order to subtract a fraction from a whole number	McGraw-Hill *Programmed Math*	Book 6 Pages 70-75
185.	Progress Test: Fractions		Teacher-made Test
186.	Problem Solving: Fractions	McGraw-Hill *Programmed Math*	Problem Book 6 Pages 15-18

Mathematics Curriculum	Published Material	Pages and/or References
187. Filmstrip:	Eyegate "Equal Groups 6 and 7"	No. 133D
188. Problem Solving: Fractions	McGraw-Hill *Programmed Math*	Book 6 Pages 19-23
189. Progress Test: Fractions		Teacher-made Test
190. Lowest common denominator	McGraw-Hill *Programmed Math*	Book 6 Pages 75-95
191. Filmstrip:	Eyegate "Working With Fractions"	No. 162E
192. Diagnostic Test: Use of fractional numbers	SRA *Computational Skills Kit*	Test No. 5
193. Use of fractional numbers	SRA *Computational Skills Kit*	Cards 1-16
194. Use of fractional numbers	SRA *Computational Skills Kit*	Reference Card No. 6
195. Problem Solving: Fractions	McGraw-Hill *Programmed Math*	Problem Book 6 Pages 24-32
196. Examination: Fractions	McGraw-Hill *Programmed Math*	Book 6 Page 96

Mathematics Curriculum	Published Material	Pages and/or References
197. Supplemental Work in Fractions	McGraw-Hill *Fractions I* *Fractions II* *Fractions III*	
198. Progress Test: Fractions		Teacher-made Test
199. Changing fractions with denominators of 10 to decimals of one decimal place	McGraw-Hill *Programmed Math*	Book 7 Pages 1-3
200. Adding & subtracting numbers of one decimal place	McGraw-Hill *Programmed Math*	Book 7 Pages 4-12
201. Problem Solving: Decimals	McGraw-Hill *Programmed Math*	Problem Book 7 Pages 1-4
202. Progress Test: Decimals		Teacher-made Test
203. Decimals with 2-3 places	McGraw-Hill *Programmed Math*	Book 7 Pages 13-20
204. Addition and subtraction of decimals with 2 and 3 places	McGraw-Hill *Programmed Math*	Book 7 Pages 21-34
205. Diagnostic Test: Decimals	SRA *Computational Skills Kit*	Test No. 11
206. Diagnostic Test: Decimals	SRA *Computational Skills Kit*	Test No. 12

Mathematics Curriculum	Published Material	Pages and/or References
207. Addition of decimals	SRA *Computational Skills Kit*	Cards 1-8
208. Subtraction of decimals	SRA *Computational Skills Kit*	Cards 1-9
209. Addition and subtraction of decimals	SRA *Computational Skills Kit*	Reference Card No. 7
210. Problem Solving: Decimals	McGraw-Hill *Programmed Math*	Problem Book 7 Pages 5-7
211. Progress Test: Decimals		Teacher-made Test
212. Filmstrip:	Eyegate "Fractions in Decimal Notation"	No. 162J
213. Problem Solving: Decimals	McGraw-Hill *Programmed Math*	Problem Book 7 Pages 8-11
214. Multiplying decimal numbers	McGraw-Hill *Programmed Math*	Book 7 Pages 34-48
215 Problem Solving: Decimals	McGraw-Hill *Programmed Math*	Problem Book 7 Pages 12-15
216. Dividing decimals by whole numbers	McGraw-Hill *Programmed Math*	Book 7 Pages 49-57

Mathematics Curriculum	Published Material	Pages and/or References
217. Diagnostic Test: Dividing decimals	SRA *Computational Skills Kit*	Test No. 14
218. Dividing decimals	SRA *Computational Skills Kit*	Cards 1-3
219. Dividing decimals	SRA *Computational Skills Kit*	Reference Card No. 7
220. Problem Solving: Decimals	McGraw-Hill *Programmed Math*	Problem Book 7 Pages 16-18
221. Adding decimal places by adding zeros	McGraw-Hill *Programmed Math*	Problem Book 7 Pages 58-61
222. Diagnostic Test: Dividing decimals	SRA *Computational Skills Kit*	Test No. 14
223. Progress Test: Dividing decimals		Teacher-made Test
224. Dividing decimals by mixed numbers with 1, 2 & 3	McGraw-Hill *Programmed Math*	Book 7 Pages 62-73
225. Division with decimals	SRA *Computational Skills Kit*	Cards 7-9
226. Division with decimals	SRA *Computational Skills Kit*	Reference Card No. 7

Mathematics Curriculum		Published Material	Pages and/or References
227.	Problem Solving: Decimals	McGraw-Hill *Programmed Math*	Problem Book 7 Pages 19-23
228.	Dividing the numerator of a fraction by its denominator	McGraw-Hill *Programmed Math*	Book 7 Pages 75-76
229.	Adding and subtracting fractions to decimals by changing fractions to decimals	McGraw-Hill *Programmed Math*	Book 7 Pages 77 & 78
230.	Problem Solving: Decimals	McGraw-Hill *Programmed Math*	Problem Book 7 Pages 25 & 26
231.	Progress Test: Decimals		Teacher-made Test
232.	Rounding off numbers	McGraw-Hill *Programmed Math*	Book 7 Pages 79-90
233.	Problem Solving: Decimals	McGraw-Hill *Programmed Math*	Problem Book 7 Pages 27-29
234.	Changing fractions to decimals then percents, finding percents of numbers	McGraw-Hill *Programmed Math*	Book 7 Pages 91-96
235.	Problem Solving: Decimals	McGraw-Hill *Programmed Math*	Problem Book 7 Pages 30-32
236.	Progress Test: Decimals		Teacher-made Test
237.	Introduction to percents		Teacher-made Exercises

Mathematics Curriculum	Published Material	Pages and/or References
238. Examination	McGraw-Hill *Programmed Math*	Book 7 Page 96
239. Changing percents to decimals	SRA *Computational Skills Kit*	Reference Card No. 8
240. Changing percents to decimals	SRA *Computational Skills Kit*	Cards 1-4
241. Changing decimal numerals to percent	SRA *Computational Skills Kit*	Reference Card No. 8
242. Changing decimal numerals to percent	SRA *Computational Skills Kit*	Cards 5-10
243. Changing decimal numerals to percent	SRA *Computational Skills Kit*	Reference Card No. 8
244. Changing decimal numerals to percent	SRA *Computational Skills Kit*	Cards 15-17
245. Diagnostic Test: Percents	SRA *Computational Skills Kit*	Test No. 15
246. Finding a percent of a number	SRA *Computational Skills Kit*	Reference Card No. 9
247. Finding a percent of a number	SRA *Computational Skills Kit*	Cards No. 1, 2, 7 & 8

Mathematics Curriculum	Published Material	Pages and/or References
248. Finding a number when a percent of it is known	SRA *Computational Skills Kit*	Reference Card No. 9
249. Finding a number when a percent of it is known	SRA *Computational Skills Kit*	Cards No. 3, 4, 9 & 10
250. Finding what percent one number is of another	SRA *Computational Skills Kit*	Reference Card No. 9
251. Finding what percent one number is of another	SRA *Computational Skills Kit*	Cards No. 5, 6, 9 & 10
252. Diagnostic Test: Percent	SRA *Computational Skills Kit*	Test No. 16 Book 8
253. Supplemental work in decimals and percentage	McGraw-Hill *Decimals & Percentage I* *Decimals & Percentage II*	
254. Simple linear measurement	McGraw-Hill *Programmed Math*	Book 8 Pages 1-7
255. Adding and subtracting mixed measurements	McGraw-Hill *Programmed Math*	Book 8 Pages 8-20
256. Progress Test: Measurements		Teacher-made Test
257. Terms used in linear measurement	McGraw-Hill *Programmed Math*	Book 8 Pages 21-38

Mathematics Curriculum	Published Material	Pages and/or References
258. Progress Test: Measurements		Teacher-made Test
259. Mileage and rate of speed	McGraw-Hill *Programmed Math*	Book 8 Pages 39-42
260. Progress Test: Percents		Teacher-made Test
261. Diameters and radius used in calculation	McGraw-Hill *Programmed Math*	Book 8 Pages 44-47
262. Examination: Measurements	McGraw-Hill *Programmed Math*	Book 8 Page 8
263. Squares and rectangles	McGraw-Hill *Programmed Math*	Book 8 Pages 49 & 50
264. Square measures	McGraw-Hill *Programmed Math*	Book 8 Page 51
265. The area of a rectangle	McGraw-Hill *Programmed Math*	Book 8 Pages 52-60
266. Progress Test: Measurements		Teacher-made Test
267. Weight and pressure	McGraw-Hill *Programmed Math*	Book 8 Pages 61-78
268. Progress Test: Percent		Teacher-made Test

Mathematics Curriculum	Published Material	Pages and/or References
269. Fluid Measurements	McGraw-Hill *Programmed Math*	Book 8 Pages 79-95
270. Examination	McGraw-Hill *Programmed Math*	Book 8 Page 96
271. Filmstrip:	Eyegate "Measurements"	No. 162G
272. Progress Test: Measurements		Teacher-made Test
273. Value of money	McGraw-Hill *Programmed Math*	Book 9 Pages 1-4
274. Decimal points in money	McGraw-Hill *Programmed Math*	Book 9 Pages 5-7
275. Making change	McGraw-Hill *Programmed Math*	Book 9 Pages 8-13
276. Progress Test: Adding money		Teacher-made Test
277. Word problems in purchasing and making change	McGraw-Hill *Programmed Math*	Book 9 Pages 14-21
278. Comparison buying	McGraw-Hill *Programmed Math*	Book 9 Pages 22-28

Mathematics Curriculum	Published Material	Pages and/or References
279. Progress Test: Making change		Teacher-made Test
280. Quality in merchandise buying	McGraw-Hill *Programmed Math*	Book 9 Pages 29-32
281. Warranties	McGraw-Hill *Programmed Math*	Book 9 Page 33
282. Discounts	McGraw-Hill *Programmed Math*	Book 9 Pages 34-38
283. Progress Test: Discounts		Teacher-made Test
284. Measurements in buying	McGraw-Hill *Programmed Math*	Book 9 Pages 38-42
285. Quantity	McGraw-Hill *Programmed Math*	Book 9 Pages 43-46
286. Standard Measures	McGraw-Hill *Programmed Math*	Book 9 Pages 46 & 47
287. Examination: Measurements	McGraw-Hill *Programmed Math*	Book 9 Page 48
288. Fluid ounces	McGraw-Hill *Programmed Math*	Book 9 Pages 49-54

Mathematics Curriculum	Published Material	Pages and/or References
289. Pounds and ounces	McGraw-Hill *Programmed Math*	Book 9 Pages 55-60
290. Progress Test: Pounds and ounces		Teacher-made Test
291. Net weight finding cost	McGraw-Hill *Programmed Math*	Book 9 Pages 66 & 67
292. Costs per pound in buying meat	McGraw-Hill *Programmed Math*	Book 9 Pages 68-79
293. Progress Test: Pounds and ounces		Teacher-made Test
294. Price per pound when buying produce	McGraw-Hill *Programmed Math*	Book 9 Pages 80-82
295. Standard weight	McGraw-Hill *Programmed Math*	Book 9 Pages 83-85
296. Progress Test: Weights		Teacher-made Test
297. Budgets	McGraw-Hill *Programmed Math*	Book 9 Pages 85-95
298. Examination: Weights	McGraw-Hill *Programmed Math*	Book 9 Page 96

Mathematics Curriculum		Published Material	Pages and/or References
300.	Filmstrip:	Eyegate "Estimating Answers"	No. 162F
301.	Interest in buying	McGraw-Hill *Programmed Math*	Book 10 Pages 7-9
302.	Term loans	McGraw-Hill *Programmed Math*	Book 10 Pages 10-12
303.	Progress Test: Principals		Teacher-made Test
304.	Filmstrip: Solving Problems	Eyegate "Solving Problems"	No. 133G
305.	Principal and interest	McGraw-Hill *Programmed Math*	Book 10 Pages 13-37
306.	Progress Test: Interest		Teacher-made Test
307.	Installment loans	McGraw-Hill *Programmed Math*	Book 10 Pages 37-47
308.	Examination: Interest	McGraw-Hill *Programmed Math*	Book 10 Page 48
309.	Collateral	McGraw-Hill *Programmed Math*	Book 10 Pages 49-52
310.	Progress Test: Collateral		Teacher-made Test

Mathematics Curriculum	Published Material	Pages and/or References
311. Down payment in credit buying	McGraw-Hill *Programmed Math*	Book 10 Pages 53-62
312. Contracts and charge accounts	McGraw-Hill *Programmed Math*	Book 10 Pages 63-72
313. Progress Test: Down payments and charge accounts		Teacher-made Test
314. Revolving charge account	McGraw-Hill *Programmed Math*	Book 10 Pages 73-82
315. Progress Test: Charges and payments		Teacher-made Test
316. Credit Application	McGraw-Hill *Programmed Math*	Book 10 Pages 83-95
317. Progress Test: Charges and payments		Teacher-made Test
318. Examination: Down payments	McGraw-Hill *Programmed Math*	Book 10 Page 96
319. Roman numerals		Teacher-made Exercises
320. Common measurements		Teacher-made Exercises

SOCIAL STUDIES CURRICULUM

Four main areas are covered in the social studies curriculum: civic responsibility, current affairs, American history, and geography. An effort has been made to correlate materials from several sources in presenting the units in each area of study, all of which center on teacher-made exercises.

Most of the work in social studies is individualized, although several learners often view a film together or hold discussions on various aspects of their study material. Current affairs are discussed weekly as a group project.

There are no materials included here on less than a fourth grade reading level since persons reading at that level or below do not participate in social studies as a separate class.

Social Studies Curriculum	Published Material	Pages and/or References
1. Diagnostic Test		Teacher-made Material
2. Film:	Compton Library "St. Louis: Gateway to the West"	
3. Discuss film: scenes of Forest Park, the Arch, the Stadium, the Airport, Kiel Auditorium, City Hall, Library, Riverfront		
4. Field Trip: Campbell House		
5. Discuss highlights of St. Louis history		
6. Pictures of eight departments of city services in action	St. Louis Board of Education *We Elect*	Pages 74-127
7. Discussion: services performed by the city		
8. Film:	Progressive Pictures "Taxes - Their Source and Usage"	
9. Discussion: taxes and the use of income		
10. Income tax forms: W-4, W-2 and 1040A	B.R.L. Consumer Mathematics	Book 5 Pages 164, 174 and 175
11. Fill in tax forms		

Social Studies Curriculum	Published Material	Pages and/or References
12. City budget	St. Louis Board of Education *We Elect*	Pages 128-143
13. Discussion: major expenditures in the city budget		
14. Federal, state and municipal powers		Teacher-made Material
15. Recognizing rivers, lakes, mountains, cities, boundaries	Xerox Corp. *Readiness for Map*	Book 2 Pages 3-10 & 26
16. Finding N, S, E & W directions	Xerox Corp. *Readiness for Map*	Book 2 Pages 17-22
17. Plant and animal life in Missouri	Steck-Vaughn *Our United States*	Page 28
18. Discussion: plants, animals and industry in state		
19. Social Studies vocabulary and spelling		
20. Citizenship	Steck-Vaughn *My Country*	Pages 27-34
21. Social Studies vocabulary		
22. Social Studies spelling		

Social Studies Curriculum	Published Material	Pages and/or References
23. Congress	Steck-Vaughn *My Country*	Pages 35-44
24. Social Studies vocabulary		
25. Kinds of climate	Steck-Vaughn *Life Near & Far*	Pages 55-69
26. Exercises: climate	Steck-Vaughn *Life Near & Far*	Pages 58-60
27. Comparison and contrast of climate	Steck-Vaughn *Life Near & Far*	Pages 67-69
28. Filmstrip:	McGraw-Hill "Effect of Geography on Climate"	
29. Effect of geography on climate		Teacher-made Material
30. Relationship of climate and work, dress and customs	Steck-Vaughn *Life Near & Far*	Pages 73, 74, 82 & 83
31. Relationship between climate, work, dress and customs		Teacher-made Material
32. Major landforms	Steck-Vaughn *Life in the Americas*	Pages 13-32

Social Studies Curriculum	Published Material	Pages and/or References
33. Exercises: landforms	Steck-Vaughn *Life in the Americas*	Pages 19-22 & 29-32
34. Filmstrip	City & Town Series "Young America"	
35. Why we have four seasons	Steck-Vaughn *Life in the Americas*	Pages 33-40
36. Exercises: the four seasons	Steck-Vaughn *Life in the Americas*	Pages 37-39
37. Landform regions of the United States	Steck-Vaughn *Life in the Americas*	Pages 57-59
38. Relationship between industry, climate and landforms	Steck-Vaughn *Life in the Americas*	Pages 59-62 & 73-75
39. The effect of landforms on industry	Steck-Vaughn *Life in the Americas*	Pages 63-66 and 76-80
40. Directions and the hemispheres	Steck-Vaughn *Life in the Americas*	Pages 3-9
41. Exercises: cardinal directions on flat maps and the globe	Steck-Vaughn *Life in the Americas*	Pages 9-12
42. Exercises: cardinal directions on flat maps and the globe		Teacher-made Exercises

Social Studies Curriculum	Published Material	Pages and/or References
43. Verbal quiz: directions and hemispheres	Xerox Corporation *Weekly Reader Map Skills*	Book 5 Pages 3-5
44. Map scale	Steck-Vaughn *Life in the Americas*	Page 5
45. Exercises: using a map scale		Teacher-made Exercises
46. Explanation by instructor concerning islands, mountains, plateaus, boundary lines, coastlines and harbors		Teacher-made Exercises
47. Exercises: using boundary lines		Teacher-made Exercises
48. Exercises: recognizing capitals		Teacher-made Exercises
49. Exercises: recognizing harbors		Teacher-made Exercises
50. Exercises: recognizing coastlines		Teacher-made Exercises
51. Exercises: recognizing mountains		Teacher-made Exercises
52. Exercises: recognizing islands		Teacher-made Exercises
53. Explanation by instructor concerning river directions, river deltas, river tributaries, oceans lakes and gulfs		Teacher-made Exercises

Social Studies Curriculum	Published Material	Pages and/or References
54. Exercises: oceans, lakes and gulfs		Teacher-made Exercises
55. Exercises: river tributaries and deltas		Teacher-made Exercises
56. Exercises: using a legend		Teacher-made Exercises
57. Exercises: river directions		Teacher-made Exercises
58. Latitude and longitude		Teacher-made Exercises
59. Exercises: latitude and longitude		Teacher-made Exercises
60. Exercises: using latitude and longitude on a globe		Teacher-made Exercises
61. Complete three comprehensive skill examinations		Teacher-made Exercises
62. Exercise: write the names of the continents, oceans, and European nations on a blank map		Teacher-made Exercises
63. Historical accounts of exploration of America	Steck-Vaughn *Our United States*	Page 12
	Follett *Study Lessons In Our Nation's History*	Pages 5-25

Social Studies Curriculum	Published Material	Pages and/or References
64. Exercise: list and spell the names of 10 explorers, their homelands and their travels		Teacher-made Exercises
65. Historical accounts of the colonial period	Follett *Study Lessons In Our Nation's History*	Pages 26-42
	Steck-Vaughn *Our United States*	
66. Historical accounts of slavery during colonial times	Crown Publishing *Pictorial History of the Negro in America*	Pages 6-16
67. Worksheet: colonial period		Teacher-made Material
68. Historical accounts of the Revolutionary War	Steck-Vaughn *Our United States*	Pages 36-38
	Follett *Study Lessons In Our Nation's History*	Pages 42-70
	Crown Publishing *Pictorial History of the Negro in America*	Pages 22, 54-59, & 86-89
69. Worksheet: causes and events of the Revolutionary War		Teacher-made Material

Social Studies Curriculum	Published Material	Pages and/or References
70. Historical accounts of the critical period	Steck-Vaughn *Our United States*	Pages 47 & 48
	Follett *Study Lessons In Our Nation's History*	Pages 70-102
71. Worksheet: the critical period		Teacher-made Material
72. The Constitution and the Bill of Rights	Follett *Study Lessons In Our Nation's History*	Pages 84-118
73. Worksheet: The Constitution and the Bill of Rights		Teacher-made Material
74. The function of the 3 major branches of government		Teacher-made Material
75. Worksheet: the major roles of the 3 branches of the Federal Government		Teacher-made Material
76. Exercise: Prepare a chart of the first seven presidents showing their terms of office, giving one major political idea, and one important decision for each	*World Book Encyclopedia or/ Encyclopedia Americana*	
77. The first fifty years of United States history	Follett *Study Lessons In Our Nation's History*	Pages 170-215

Social Studies Curriculum	Published Material	Pages and/or References
78. Worksheet: after the Revolution		Teacher-made Material
79. Immigration and westward expansion	Wesley *Our United States History in Maps*	Page 56
80. Immigration and westward expansion		Teacher-made Material
81. Negro history from 1800 to 1850	Crown Publishing *Pictorial History of the Negro in America*	Pages 21-30
82. Worksheet: After the Revolution		Teacher-made Material
83. Read historical account of the Civil War	Follett *Study Lessons In Our Nation's History*	Pages 292-334
84. Worksheet: The Civil War		Teacher-made Material

85. *News For You,* a current events newspaper written on two reading levels is read and discussed weekly by all students.

COUNSELING WORKSHOP CURRICULUM

The one area which consists entirely of group activities is the counseling workshop period. In addition, it is the most learner-oriented phase of the UM-ABE system in the sense that the learners themselves decide the content to be studied. For this reason there can be no set curriculum; the outline below suggests a few topics that have been covered.

A skilled counselor guides the learners through the units they have devised, utilizing role-playing, class talks, panel discussions, guest speakers, and films, as well as written materials both published and teacher-made.

Through this class, learners also engage in extra activities, such as writing and presenting skits for special occasions, participating in their Weight-Watchers' Club, painting murals on the school walls, and contributing to the student newspaper. It is in this counseling workshop where most emphasis is placed upon the learner's understanding and expressing his inner self, and on his setting of appropriate individual goals.

1. Getting Acquainted
   A. Getting to know ourselves
   B. Jobs we can do

2. The World of Work
   A. Significant developments
      1. New inventions
      2. Changes in work opportunities
      3. New methods of production
   B. Importance of new job skills
      1. Skills needed today
      2. Kinds of skills
   C. Training and retraining

3. Learning to Read a Help-Wanted Column
   A. Job advertisements (ads)
      1. Arrangements
      2. Telephone contact
      3. Application in person
   B. Agency advertisement
      1. Arrangements
      2. Specialized services
      3. Reliability

4. Answering Advertisements by Telephone
   A. Telephoning in reference to newspaper ad
   B. Following up other job leads
   C. On-the-job telephone calls

5. Using Classified Telephone Directory for Job Leads
   A. Finding the employment agencies
      1. Skills required
      2. Organization and job possibilities
   B. Using trade ads for job exploration
   C. Registration fee
   D. Public and private agencies

6. Employment Services
   A. Use of public agencies
   B. Varied services of private agencies

7. Preparing for an Employment Interview
   A. Why the interview
   B. Interview preparation
   C. Interview behavior

8. Making Out An Application Blank
   A. Purpose of interview
   B. General information requested on most application blanks
   C. Employment agency applications

9. Occupational Opportunities in Our Community
   A. Occupational interdependence of a community
   B. The changing occupational picture of today's community
   C. Exploring job opportunities

10. Government Jobs
    A. Kinds of civil service employment
       1. Local
       2. State
       3. Federal
    B. General services
       1. Clerical
       2. Professional

C. Types of tests
   1. Written
   2. Performance
D. Advantages of government employment

11. The Labor Unions and the Worker
   A. How labor unions began
   B. Kinds of unions
   C. Rights and responsibilities of organized worker
   D. Unions and welfare services
   E. Steps in joining a union

12. The Social Security System
   A. Why is social security necessary
   B. Who is entitled to social security
   C. Getting a social security card
   D. Filing a claim for benefits

13. Getting Along on the Job
   A. Doing the job
   B. Developing good work habits
   C. Working with others

14. Education for Better Jobs
   A. Educational challenges
   B. Upgrading old skills
   C. Learning new skills
   D. Educational opportunities in technical fields

15. The Worker
   A. Being responsible
   B. Promptness
   C. Getting along on the job

16. Career Day
   A. Choosing a career to fit you
   B. Things you need to know about your vocation

17. Your Community
   A. Available resources
   B. Individual responsibilities
   C. Community relations
   D. Educational and cultural opportunities

18. Planning and Budgeting for Wiser Spending
   A. Impulse buying
   B. Quantity buying
   C. Seasonal buying
   D. Budgeting your income
      1. Daily
      2. Monthly
   E. Better to rent or buy?

19. Family Living
   A. Home management
   B. Sharing responsibilities
   C. Relationship of members
   D. The problem child

20. The Value of Continuing Education
   A. Changing technology
   B. Social demands
   C. Cultural lag

21. Speech and Drama
   A. Public speaking
   B. How to be a good listener

C. Demonstrations
D. How to hold your audience

22. Your Government
A. Local
B. State
C. Federal

23. Etiquette
A. On the job
B. Table
C. Social
D. The do's and don'ts of everyday behavior

24. Proper Dress
A. What to wear and when
B. Using what you have
1. Change-abouts
2. Accessories
C. Are you over- or under-dressed?

25. The Fine Arts
A. Creativeness in man
1. Music
2. Dance
3. Literature
4. Art
B. Others

26. Alcoholism
A. An increasing problem
B. Defining an alcoholic
C. Types
1. Symptomatic
2. True addict
3. Secondary addict
D. How are they to be treated
1. Psychotherapy?
2. Psychiatry?

PUBLISHED MATERIALS USED*

Follett

Accent/Consumer Education Series

Accent/Family Finances Series

Behavioral Research Laboratories

Why Work Kit

Science Research Associates

Occupational Exploration Kit

*These materials are supplemented by both teacher-made and learner-made materials.

SUMMARY

Although the teaching of adult illiterates has seldom been thought of as a university function, the University of Missouri - St. Louis has shown that a university can both benefit from and contribute to this area.

The key element in the University of Missouri - St. Louis adult basic education system is diagnostic testing followed by a confirmation procedure conducted by the teacher to help eliminate error in placing the student. After this has been accomplished, an individual program is designed to meet the learner's specific needs. This individualized approach is the strongest feature of the entire system because of the flexibility it offers both the teacher and the learner.

In order to meet the needs of each learner, the curriculum must be constantly changing. There is a great need for teacher-made material to supplement commercially published resources and to avoid material which is either too easy or too difficult for the individual learner.

Although most of the UM-ABE system uses an individualized approach, group activities are planned when they can be beneficial to the learner as in the case of current affairs. The counseling workshop is an area which is completely group-oriented but is still personal since the learners choose the material to be covered.

CONCLUSION

It should be emphasized that the exercises and material mentioned in this curriculum are mere suggestions, and represent only a skeleton of what takes place in the individualized instruction classroom of the University of Missouri adult basic education system.

The inventiveness, responsiveness, and sensitivity of the teacher in any situation is of far more importance than just following a sequence of suggested classroom activities. The learner's motivation can be improved through use of such varied devices as the tape recorder, individual filmstrip viewer, phonograph, language master, controlled reader, flash cards, photographs, games, and a quantity of material in different written forms. The ability to know and understand each learner's needs and to react to them by bringing out the best in each individual is a talent indeed. Accurate evaluation of a learner's knowledge is the most basic prerequisite to his successful progress, on his own level, according to his own capabilities.

In order to implement this progression, then, the UM-ABE system attempts to provide a sequence of short exercises within the range of basic education in those areas which seem most relevant to adults. It is an on-going project—one that will not be completed as long as individual differences present themselves among the learners in the individualized instruction classroom.

SOURCES OF TEACHING-LEARNING MATERIALS

ERIC Clearinghouse
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on Adult Education

Barnell Loft - 111 South Center Avenue, Rockville Center, L.I., N.Y. 11571

Bell & Howell Company - 7100 McCormick Road, Audio-Visual Sales Department, Chicago, Illinois 60645

Crown Publishers, Inc. - 419 Park Avenue South, New York, N.Y. 10016

Educational Development Laboratories, Inc. - Huntington, N.Y. 11743

Eye Gate House, Inc. - 146-01 Archer Avenue, Jamaica, N.Y. 11435

Follett Publishing Company - 1010 W. Washington Blvd., Chicago, Illinois 60607

Garrard Press Publishing Company - 1607 N. Market Street, Champaign, Illinois 61821

McCall Crabbs - Teachers College Press - Columbia University, New York, N.Y. 10027

McCormick-Mathers Publishing Company - 300 Pike Street, Cincinnati, Ohio 45202

McGraw-Hill Film Company - 330 West 42nd Street, New York, N.Y. 10036

Milton Bradley - Springfield, Mass.

Science Research Associates - 259 East Erie Street, Chicago, Illinois 60611

Scott, Foresman & Company - 1900 East Lake, Glenview, Illinois 60025

Steck-Vaughn Company - P.O. Box 2028, Austin, Texas 78767

Wesley, Denoyer, Geppert - 5235 Ravenswood Avenue, Chicago Illinois 60640

American Education Publications - Education Center, Columbus, Ohio 43216