A learning center at San Bernardino Valley College was established to diagnose and correct reading deficiencies in their students. The learning center focuses on specific reading skills and uses prescriptive teaching to tailor the method and materials to the individual students. Test scores indicate the particular reading problems the student has, and tutoring or autoinstructional programs are prescribed according to the student's reading level. Areas of instruction include word attack, vocabulary, comprehension, speed and flexibility, and application of reading skills to content subjects. Materials used in the program include reading kits, audio tapes and corresponding books and filmstrips, programed spelling materials, graded reading materials, textbooks, flashcards, pacing devices, study guides, and video tapes. The program is designed to cover a semester and the learning centers can accommodate about 300 students. (AL)
PRESCRIPTIVE TEACHING LINKED TO A
LEARNING AND TUTORIAL CENTER

Presented
by

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WESTERN COLLEGE READING ASSOCIATION CONVENTION
April 2, 1971
PRESCRIPTIVE TEACHING LINKED TO A
LEARNING AND TUTORIAL CENTER

Introduction

The search for a viable instruction program for college students has led our staff at San Bernardino Valley College to consider more closely the structure of knowledge and the specific associated skills of college subject areas. To teach a student how to learn, means the student learns how to acquire the knowledge of subjects he is taking. I emphasize this need to clarify objectives in relation to knowledge because reading instruction becomes so generalized. The reading program provides services to the college which are interdisciplinary so that reading skills unique to each content area understood.

We wish to describe a program which emphasizes individual prescriptive goals. Students are essentially concerned about developing specific learning skills for specific bodies of knowledge. Our objective as reading instructors is to help students accomplish this in an environment that offers optimum individual contact between instructor and student, tutor and student, and student and student. This individualized prescriptive approach utilizes the wide variety of instructional media available.
The Learning Center is a people-centered environment; not a machine-oriented institution. A learning system cannot be effective if it attempts to function without man, but rather, as Charles Silberman has suggested, "It can only be a symbiosis of the two." Thus, man and the system become partners.

Teaching a college student to read involves teaching the levels of comprehension appropriate to various types of college subjects. Social science prose is often quite different from scientific prose. Our prescriptive program deals analytically with the range of comprehension levels implicit in college courses. Reading instructors must also teach a student the special reading problems of the essay, poetry, and fiction. The student working in the Learning Center can devote more time to individual practice than is available in lecture classes.

In addition, the prescriptive program must include the diagnosis of other related areas such as vocabulary and speed and flexibility. Since we are particularly concerned about reading instruction in a community college, we must prescribe for a wide range of reading problems which reach down to the most basic and associated with teaching adult literacy.

Therefore, our prescriptive reading programs require a comprehensive identification of skills within the taxonomy of comprehension. Diagnostic procedures must identify students' needs with maximum speed. Such a program requires a resource center not merely stored with software and equipment, but a totally planned curriculum organized into a system. Such a system must consider different teaching strategies involving instructors, tutors, and available technology.
The importance of such coordination of all these components is often overlooked in the complex process of developing a prescriptive teaching system. Our report concerns key elements of this system -- diagnosis, prescription, instruction, and tutorial follow-up. The remediation in the Learning Center is concentrated in three areas: vocabulary, comprehension, and word attack. This reading system now functions as a model for the development of specialized reading study skills programs in various college disciplines.

My colleagues and I will explain a few components of this system. We will describe how prescription, instruction and tutorial follow-up is applied to vocabulary, comprehension, and reading flexibility skills.

**Diagnosis and Prescription**

For many students some diagnosis of their reading problems begins before they enroll in a reading class, since all English professors give their students a reading test. In addition, all students take an entrance examination, which provides a verbal score.

In reading classes students are given diagnostic tests to enable them to understand their specific reading strengths and weaknesses.

For example, very early in the semester, each student is given the Nelson-Denny or Nelson test. The determination of which test is made on the basis of the student's SCAT Test Scores and on the type of classes he is taking. If a student scores below the seventh grade level, the Nelson test is administered. The Nelson-Denny test is given to all other students.

Immediate scoring by the use of the computer makes it possible for students to be guided initially to materials with which they can be successful.
We build our instructional program on additional diagnostic testing, such as the STEP Test. The objective of this diagnosis is to analyze more thoroughly specific comprehension disabilities.

The results on the first diagnostic test, the Nelson-Denny, helps determine which level of the STEP Test to administer. Forms 1, 2, and 3 are used, based on whether the student is reading at college, high school, or below seventh grade level. Regardless of the fact that the student is in college, if his reading ability is below seventh grade, taking the College Level STEP Test can be very defeating and will not give information about the student's reading skills needs. We try to administer the STEP Test at a level that will yield information about his abilities to select main ideas, make inferences, and analyze prose.

One advantage of our prescriptive strategy is that STEP are scored by computer immediately and are returned to students the following class session. The Datatronics Test Scorer is located in the Learning Center. Test answer sheets are instantaneously scored at the rate of thirty tests per minute and incorrect answers are indicated.

The immediacy of this rapid scoring procedure offers direct prescriptive analysis for follow-up during lab and tutorial sessions.
TO ACHIEVE OUR DIAGNOSTIC GOALS

After each diagnostic test is scored, interpretation is given to entire class or to individual groups. An attempt is made to help students understand what is measured by each test and what their individual results indicate.

Each student completes an actual analysis of his STEP Test errors. This requires the student to count and tally the errors he made and gives him an account of his performance on the skills measured by the STEP Test.

Each of the skills measured and the types of materials used on the STEP test are explained to the students. Instructional resources appropriate for each type of skill are listed for students so they may choose materials which will be most helpful during classroom study and laboratory practices.

Materials are available in the Learning Center on many different levels, so every effort is made to help the students identify their reading weaknesses and to guide them to practice skills at their appropriate reading level.

In discussions, the emphasis is always on helping students analyze their own reading strengths and weaknesses so that the instructor can guide each individual to materials and tutorial help which will be of most assistance.

Study skills are of concern to students. If after discussions of good study habits, a student wishes additional information about his study problems, he may request to take the SRA Study Skills Survey or the Brown-Holtzman Survey of Study Habits and Attitudes, which will give him prescriptive information about the areas in which he is deficient. Auto-tutorial materials on several levels of difficulty are available and students can be directed to appropriate resources.
A system for memorization entitled "Learning Through Association" is available for students wishing this training. The DuKane Projector makes it possible for a synchronized film strip and audio tape to be used by individual students. A film strip series on "Effective Study Habits" providing a short, comprehensive review of study skills is also used with this projector.

The Listen and Read tapes by Educational Developmental Laboratories are available for specific instruction in content areas such as how to read mathematics books, how to underline textbooks, and how to take notes in lectures. Students who feel in need of such instruction are guided to appropriate auto-tutorial lessons.

We are receiving a growing number of requests for spelling aids. Comprehensive, self-guided spelling assistance has been developed by the Reading Center. Diagnostic tests are recorded on cassette tapes so students may inventory their present spelling problems. After completing diagnostic tests, students are guided to programmed books available and to specific skills cards in the SRA Spelling Lab. Several well-qualified tutors are available to assist students to improve spelling skills.

Some students who do not have serious spelling problems -- or who feel that the problems they have with spelling are not their most immediate ones -- use the spelling resources selectively. This section of the Learning Center is used voluntarily by many students who are not enrolled in reading classes but who feel the need to develop spelling ability. Students may use the spelling aids as needed.
Since most students enroll in a reading class for only one semester, we try to guide each student to as much specific material as possible which will help him overcome his most severe reading and study problems. Throughout the semester, the instructors and lab assistants help the students analyze comprehension, vocabulary, and flexibility skills most needed. If a student uses that media which he feels actually helps him, he often comes back during the subsequent semesters to use additional resources which he was unable to study while in a reading class.

For some students it is apparent that the large group testing does not provide enough diagnosis of his reading difficulties. Especially when a student is a very poor reader, additional individual tests must be administered.

Diagnosis is a continuing process and as instruction progresses, instructors or tutors may administer individual tests. The purpose is to assess basic word attack skills and related comprehension problems.

Students who are extremely poor readers are often unable to profit from independent use of auto-tutorial materials. Tutors, therefore, are available to work with individual students or with small groups. After the instructor prescribes work for the students tutors work with them so that questions and misunderstandings may be dealt with immediately.

When there are many students in a class who have low reading ability, a tutor may meet with the class so that students will become familiar with the tutor -- and so that the tutor will be able to follow-up instruction started in the class. By meeting with the class, the tutor has regular contact with the instructor and individual plans of study for students can be discussed.
Word Attack Prescription

When a student's diagnosis indicates reading skill below the seventh grade level, word attack skills are definitely prescribed. The L-100 Work Shop is a literacy program which aids students at various levels. The program consists of synchronized audio and visual materials which introduce sight words and basic word attack skills. Listening, speaking, reading, and writing are developed. The students are under the supervision of an instructor assisted by a para-professional who spends needed time with each group.

Informal diagnostic inventories are often administered individually to help pinpoint word attack needs and to analyze the student's progress.

The Language Master provides listening and speaking drill on core vocabulary and the Dolch Word List. Students needing help with English as a second language utilize specialized materials on the Language Master. A video tape using visual and voice aids is now being prepared to teach basic sight words.

The Tactics I and II language skills kits are used in the classroom and with laboratory assignments to develop word attack skills. This programmed material has a convenient pre- and post-inventory that guides students to specific word attack and comprehension needs.

Graded Readers' Digest stories with accompanying audio tapes are beneficial for students needing additional sight word reinforcement.

Literacy class instruction is built around a basic text which incorporates word attack skills. Regular Learning Center assignments follow class instruction. The classes are divided so that teachers and teachers' aides are able to help students with more personal reading problems.
Vocabulary Prescription

The EDL Word Clues graded books are used for vocabulary instruction. This material provides programmed practices in the use of context, and dictionary study.

Student placement is determined from the Nelson-Denny or Nelson test. Each student chooses one Word Clues book from the seven grade levels used. This means that in a single class there may be students working on seven different levels of vocabulary.

The Learning Center System is designed to support all levels of individualized vocabulary needs. All Word Clues vocabulary words have been printed on E.F.I. Audio Flashcards for listening and pronunciation practice. We strive to enable each student to make the 300 words in his vocabulary book a functional part of his spoken and written experience.

Distributed practice and periodic evaluation has provided an effective program in vocabulary skills.

Some teachers encourage students to develop personal vocabulary lists. A definition and a relevant sentence is used for each new word. Class vocabulary sharing of students' new words provides stimulating follow-up.

Our diagnostic and prescriptive procedures direct students to a variety of resources to assure systematic instruction in word attack, comprehension and extended vocabulary training. Students whose vocabulary development is not at college level may wish to concentrate on vocabulary practice. Those who wish to develop additional vocabulary skills may be guided to the Craig Vocabulary Preview-Read Program. This program relates vocabulary to general fluency since the student learns how to preview materials, vary speed, and extend understanding of new words. Pre and post-tests are administered so that students may note their improvement.
This program offers the advantage of developing reading skills along with vocabulary improvement.

Students with good vocabularies who wish further development at advanced levels find the Bergan-Evans Practical Vocabulary Improvement materials useful. The tapes in this series are used with the E.F.I. wireless system which transmits vocabulary exercises to one or more students in the Learning Center. The materials stress the use of words in context with emphasis on learning groups of related words so that students understand the distinctions between the words. Even advanced students can often learn new words more readily and are able to make the words part of their spoken and written vocabulary with this system.

Comprehension Prescription

Vocabulary instruction is best related to the total comprehension process. Our diagnostic data in comprehension breaks down these skills on the taxonomy. Our objective is to aid the student in identifying specific aspects of his comprehension problems. We get this through screening of the specific STEP Test skills. In addition, the tutor and instructor interviews students for additional needs.

For example, Reading Skills are broken down into two major areas on the STEP Test: Comprehension Skills and Types of Materials.

The breakdown of these can be illustrated this way:
<table>
<thead>
<tr>
<th>Comprehension Skills</th>
<th>Type of Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Reproduce ideas</td>
<td>1. Directions, announcements</td>
</tr>
<tr>
<td>2. Translate, make inferences</td>
<td>2. Information, explanations</td>
</tr>
<tr>
<td>3. Analyze motivation</td>
<td>3. Letter</td>
</tr>
<tr>
<td>4. Analyze presentation</td>
<td>4. Story</td>
</tr>
<tr>
<td>5. Criticize</td>
<td>5. Poetry</td>
</tr>
<tr>
<td></td>
<td>6. Opinion, interpretation</td>
</tr>
<tr>
<td></td>
<td>7. Play</td>
</tr>
</tbody>
</table>

For example, if a student is low on Item 1, Reproducing ideas, he is given an explanation of a number of sub-skills related to this first level of comprehension. Where the problem is critical, an instructor may discuss the specific skill in some detail. The student is questioned and encouraged to verbalize his own concerns about why he may be low in that area. The objective is to put the responsibility on the student while acquainting him with the Learning Center's available aids.

Since each student analyzes his own STEP Test errors, he knows the areas that need his attention. For instance, if a student had difficulty with Skill 3, Ability to Analyze Motivation, he may refer to the information sheet about that skill and find audio tapes which would be of value to him.

Another student's test results may indicate that he needs work with a type of material such as Opinion and Interpretation. Another information sheet lists the tapes, programmed books, and special practice materials available in the Learning Center that would be beneficial in learning to understand Opinion and Interpretation. Such lists are available for the five skills and seven types of material listed on the STEP Test.
Nearly all materials in the Learning Center are marked with letters so that students can distinguish between easy and difficult material. On the lists of suggested activities for each STEP Test area, levels of difficulty are indicated by these letters.

A similar prescriptive procedure is followed for students needing help in an area such as reading poetry. The student may merely listen to a tape with poetry read, or he may follow an analytical explanation on an auto-tutorial program.

Students receive some group instruction for purposes of clarifying general comprehension problems and are then directed to individual activities in the Learning Center. The Center provides considerable instructor and tutorial follow-up since a room filled with instructional media can appear rather sterile without careful concern for human contact.

Speed and Flexibility Prescription

College reading programs should give students a proper perspective on the role of speed and flexibility. There has been so much commercial exploitation in this area that concern about speed and flexibility is too often distorted.

Students do need to be taught that not all reading material is read with the same thoroughness and speed. Some instruction in how to scan a book to decide whether it should be read at all is appropriate. There are rather specific skills associated with skimming and scanning that can be diagnosed and taught as needed. The EDL Reading Versatility Tests can serve a useful diagnostic purpose.
Research indicates that poor perceptual skills often are a symptom of poor readers. San Bernardino Valley College has worked on these skills where necessary with over five thousand students during the past six years. There is no question that many students have directly benefited from training in developing directionality and speed through pacing practice. The key point is that students can be taught to read flexibly, and they can increase their rate. It is important that students be encouraged to develop perceptual skills such as directionality in conjunction with everything they read.

Instructional media is extremely beneficial since it can provide a comprehensive structured program available to students for use on an individual basis. In a college learning center where the objective is to diagnose and prescribe appropriate perceptual training to hundreds of students each year, reading pacing devices can be useful. Undoubtedly, much excellent training can be done without the aid of pacing devices. However, what college can afford the staff for the small group instruction necessary if pacing and flexibility is to be taught directly by the instructor? Through the use of media one can individualize instruction for a large number of students since they can work independently in the lab.

The use of the Learning Center and the available reading pacers is designed to help the student read more flexibly without a pacer. However, this is a developmental process. It may begin with extensive perceptual training in directionality with the Controlled Reader, but the student is then encouraged to move to other types of pacing devices and finally to paperbacks or college textbooks.
Content Subject Application

The extension of the prescriptive model to specific college disciplines can offer promising paths to effectiveness for college reading programs. The service role of the reading program cannot be overemphasized. The English Department's problem is developing communication skills for a population of wide ranges of ability. The Learning Center's role is to help the English Division accomplish this objective.

At San Bernardino Valley College the Learning Center has assisted the English Division in developing a specialized prescriptive course for students concerned about reading materials used in English 1A. Students are encouraged to elect an English 1A course especially designed jointly by the English Division and the Learning Center. The English staff now gives a test to identify their student's reading problems. The Learning Center assists in developing the most effective prescriptive program for the special needs of English 1A students. Over three hundred students will be enrolled in the new course in the fall.

A similar prescriptive package has been developed for Humanities. Special reading problems face the Humanities student who must master the special vocabularies of art, music, philosophy, and literature. In addition, the student is expected to read competently a comprehensive text in the Humanities. Specially prepared study guide tapes were developed for the specific reading problems associated with this text. The Humanities staff has taken a responsible role in identifying specific skills areas and have actually prepared many of the independent study materials.
In addition, a series of background lectures utilizing slide and cassette tapes are available for each section of the textbook. Five hundred humanities students used these resources during the fall semester. Student evaluations of these reading aids received the highest praise.

A video tape on how to read Goethe's Faust is currently being prepared.

These examples of the English and Humanities Divisions' direct involvement in organizing and utilizing the Learning Center's resources are positive examples of interdisciplinary prescriptive models which work.
Summary

Our goal is to approach the total learning process with a concern for all its components, cognitive skills, psychomotor skills, and affective needs. Community college reading programs must develop reading strategies where students work effectively on these goals and develop, in the process, independence as students.

The Learning Center exists to assist students. We want to help students realistically appraise their own needs and then overcome their difficulties. We strive for "satisfied customers." When students feel they came to the Learning Center and found a concerned staff that could and did assist them, we feel we have accomplished our goals.

I leave you with this final thought. We are surrounded by beautiful, frightening, fulfilling changes, and the changes are the people who surround us.

These students are the ones whose fructification we touch but for a moment. Endemic within these students lie the new, glorious, hopeful world of today's tomorrow.

Thus, our thrust must be person centered, for these students will fructify the claims of the future.