

DOCUMENT RESUME

ED 192 017

CE 026 302

AUTHOR Thornton, L. Jay: And Others
 TITLE Cosmetology Reading Strategies. 1980 Vocational Reading Series.
 INSTITUTION Pennsylvania State Dept. of Education, Harrisburg. Bureau of Vocational and Technical Education.; Pennsylvania State Univ., University Park. Div. of Occupational and Vocational Studies.
 SPONS AGENCY Office of Education (DHEW), Washington, D.C.
 PUB DATE 80
 NOTE 117p.: For related documents see CE 026 303 and CE 026 374-376.

EDRS PRICE MF01/PC05 Plus Postage.
 DESCRIPTORS Case (Grammar); *Cloze Procedure; Content Area Reading; *Corrective Reading; *Cosmetology; Directed Reading Activity; Job Skills; Learning Activities; Learning Disabilities; Postsecondary Education; *Readability; Readability Formulas; Reading Comprehension; *Reading Difficulties; Reading Skills; Secondary Education; Teaching Methods; *Vocational Education
 IDENTIFIERS SQ4R Method

ABSTRACT

Cosmetology Reading Strategies is one of five instructional guides in the Reading Strategies in Vocational Education Series. Developed to assist teachers working with students considered disadvantaged because of reading deficiency, the guide contains several strategies, suitable for adaptation, specifically related to cosmetology instruction. Each of six sections into which the guide is divided contains informational material and extensive examples and exercises. Section 1 concerns readability and gives procedures and guidelines for how to collect samples and how many samples to collect. Section 2 briefly describes the Cloze procedure and its usefulness as a reading test and as a teaching technique for the theory of case grammar. The following four sections each present a set of important reading skills: Basic Vocabulary Skills, Paragraph Comprehension, SQ4R (Survey, Question, Read, Record, Recite, Review), and Recognizing and Recording Complex Information. Each skill is broken down into segments requiring no more than 5-10 minutes of class time every other day. Homework utilizes text assignments normally required. Following individual skill discussions is the part, Textbook Application, where each skill is applied to the course's own textbook. Each section ends with additional suggestions for teaching the new skills. (A time frame is provided for teaching the skills.) (YLB)

 * Reproductions supplied by EDRS are the best that can be made *
 * from the original document. *

ED192017

COSMETOLOGY
READING STRATEGIES

L. Jay Thornton
Project Director

Louise Bay Waters
Reading Consultant

Ta-Wei Lee
Project Associate

Division of Occupational and Vocational Studies
The Pennsylvania State University

Pennsylvania Department of Education
Bureau of Vocational Education

1980

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

B. Ford

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

2

CF 026 302

FORWARD

Education amendments in 1976 (P.L. 94-482) provide for special assistance to a wide variety of students with "special needs." The special needs of these students are derived from conditions of the students which are believed to inhibit success in vocational programs. Both handicapped and disadvantaged individuals are to be served by the legislative provisions.

Academically disadvantaged students are those individuals who, because of math, reading, or communication deficiencies, may not be able to succeed in vocational programs. Legislation has provided for research and development projects to address the needs of these individuals. The projects in progress have been designed to respond to that call for research and development.

This instructional guide was developed for the purpose of assisting Cosmetology teachers in their work with students who are considered disadvantaged because of reading deficiency. It was developed as a result of vocational reading research at The Pennsylvania State University. The guide is intended to be presented at workshops in 1980 funded by the Pennsylvania Department of Education.

"Cosmetology Reading Strategies" have been developed according to certain distinct characteristics of reading requirements in vocational education:

- (1) Reading is a vocational skill; one that requires reading abilities that differ from those associated with general literacy.
- (2) There is a difference between curricular literature (textbooks and other literature which must be read in the context of student status) and occupational literature (manufacturers instructions, codes, specifications, safety warnings, etc.).
- (3) Occupational reading skills are appropriately addressed in the vocational curriculum.
- (4) There are strategies available to vocational teachers which need little or no reading specialization.
- (5) Available strategies reflect the unique qualities of vocational reading, address general vocational reading skill requirements, and are useful for helping students disadvantaged because of reading deficiencies.

This guide is NOT intended to be envisioned as the final word in reading strategies. It contains examples of several strategies believed to be useful for the vocational instructor seeking methods that are specifically related to cosmetology instruction. The instructors are responsible for taking these examples and applying them to their occupational specialties. Not all of the methods will work for all cosmetology teachers or their

respective students. The methods were designed to be adapted, not rigidly adhered to.

Companion R & D projects at Penn State will provide useful complementary aids. An Employability Skills Curriculum Guide (Wircenski, McPherson, Feng, 1980) will soon be available. That guide addresses socialization, financial management, values clarification, job procurement, and communication skills. Four other occupational specialties (Carpentry, Data Processing, Medical Assisting, and Radio and Television) will be the bases for reading strategy guides (Thornton, 1980). These guides will focus more specifically on other occupational areas utilizing a format similar to the Cosmetology guide.

Field testing during 1980-81 school year is expected to result in additional refinements of the several reading strategies. Criticism and recommendations are invited by all who receive these materials. Correspondence should be addressed to

Director
Reading Intervention Strategies Project
113 Rackley Building
The Pennsylvania State University
University Park, PA 16802

L. Jay Thornton
Project Director
1980

ACKNOWLEDGEMENTS

The Reading Strategies in Vocational Education Series, of which this book is one part, has resulted from research conducted by the Division of Occupational and Vocational Studies, The Pennsylvania State University and the Bureau of Vocational Education, Pennsylvania Department of Education. Many people, not expressly identified as part of the project, have served willingly in the dispatch of its objectives. Appreciation is especially expressed to Mr. Wayne Grubb, Consultant for Disadvantaged and Handicapped, Bureau of Vocational Education, Pennsylvania Department of Education, for his support and procedural advice.

Fifteen Area Vocational-Technical Schools in the Center Region of Pennsylvania participated in the development of the series. Scores of manufacturers, publishers, and employers provided literature and information. A listing of the schools, manufacturers, publishers, and employers follows. The project would have been impossible without their help.

Two research efforts provided considerable information toward the development of the series. The first, Basic Reading Skills and Vocational Education, was published by The National Center for Research In Vocational Education under the auspices of the Knowledge Transformation Project. That publication was supervised by Dr. Carol P. Kowle. The second, Review and Synthesis

of Reading In Vocational Education, was published by the Division of Occupational and Vocational Studies in conjunction with the Division of Education Administration Policy Studies and The Pennsylvania Department of Education. Both titles are available directly from their respective publishers.

Appreciation is expressed to Mrs. Laura Frye for her careful attention to the typing and proofreading of not only the final drafts of each title in the series, but all the preliminary work and intervening drafts required. The secretarial assistance of Rosann Moore, Peggy Kresovich and Sharon Brode in the typing of manuscripts is especially appreciated.

DISCLAIMER

The activity which is the subject of this report was supported in whole or in part by the U. S. Office of Education, Department of Health, Education, and Welfare. However, the opinions expressed herein do not necessarily reflect the position or policy of the U. S. Office of Education, and no official endorsement by the U. S. Office of Education should be inferred.

LIST OF PARTICIPATING SCHOOLS

Altoona AVTS

Centre County AVTS

Clearfield County AVTS

Columbia-Montour AVTS

Dauphin County AVTS

Franklin County AVTS

Juniata-Mifflin County AVTS

Lancaster AVTS - Mt. Joy

Lebanon County AVTS

SUN AVTS

Northumberland County AVTS

York County AVTS

Carlisle Area School District

Danville Senior High School (Nursing)

Hanover Public School District (Nursing)

LIST OF PARTICIPATING MANUFACTURERS/EMPLOYERS

Bonat, Inc.
Lackawanna Avenue
West Paterson, NJ 07427

Cosmetic, Toiletry and Fragrance
Association, Inc.
Haircoloring Technical Committee
Washington, DC

Redken Laboratories
6625 Varied Street
Canoga Park, CA 91303

Roux Lab., Inc.
3733 University Boulevard, West
Jacksonville, FL 32217

Sperry Remington Electric Shaver
60 Main Street
Bridgeport, CT 06602

Veeco Beauty Equipment Company
1217 West Washington Boulevard
Chicago, IL 60607

Wella Corp.
524 Grand Avenue
Englewood, NJ 07631

LIST OF PARTICIPATING PUBLISHERS

Keystone Publications
New York, New York

Milady Publishing Corporation
Bronx, New York

Modern Salon
California

West Publishing Company
St. Paul, Minnesota

TABLE OF CONTENTS

	<u>Page</u>
FORWARD	iii
ACKNOWLEDGEMENTS.	vii
DISCLAIMER.	ix
LIST OF PARTICIPATING SCHOOLS	x
LIST OF PARTICIPATING MANUFACTURERS/EMPLOYERS	xi
LIST OF PARTICIPATING PUBLISHERS.	xii
LIST OF FIGURES	
 <u>Section</u>	
I. READABILITY	1
Readability Procedures.	4
Exercise 1.	23
Samples: How Selected and How Many	27
Exercise 2.	29
II. CLOZE PROCEDURE	31
Student Reading Ability	33
Exercise 3.	66
Case Grammar and the Cloze Procedure.	70
Exercise 4.	72
III. BASIC VOCABULARY SKILLS	79
Formal Definitions.	81
Exercise 5.	82
Synonyms.	83
Exercise 6.	83
Illustrations	84
Exercise 7.	85
Glossaries.	89
Educated Guessing	89
Exercise 8.	90
Exercise 9.	92
Teaching Students Vocabulary Skills	95

TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Page</u>
IV. PARAGRAPH COMPREHENSION	97
Paragraph Subject	100
Exercise 10	100
Paragraph Main Idea	101
Exercise 11	102
Paragraph Comprehension and Illustrations	103
Exercise 12	104
Exercise 13	105
Exercise 14	106
Teaching Students to Understand the Paragraph	108
V. EFFECTIVE READING TECHNIQUE	109
The SQ4R Method of Study	111
Occupational Literature Application	113
Exercise 15	114
Teaching SQ4R	114
VI. RECOGNIZING AND RECORDING COMPLEX INFORMATION	117
Classification.	119
Exercise 16	122
Comparison.	123
Exercise 17	125
Cause and Effect.	126
Exercise 18	128
Exercise 19	130
Teaching Students to Recognize and Record Complex Information	131
REFERENCE NOTES	132
REFERENCES	133

LIST OF FIGURES

	<u>Page</u>
Figure 1: Sample Readability Graph	7
Figure 2: Graph for Estimating Readability	9
Figure 3: Flesh Readability Formula Procedure.	13
Figure 4: Flesh Readability Procedure Form	15
Figure 5: Sample With Word Count Over Words.	20
Figure 6: Sample Text With Syllables Marked.	22
Figure 7: Sample Graphs of GRL - Frequencies: 3, 6, 10, 15 Samples	28
Figure 8: Readability Record	30
Figure 9: Hair Conditioner Cloze Test.	35
Figure 10: Scalp Treatment Cloze Test	41
Figure 11: Sculptured Curl Cloze Test	49
Figure 12: Thermal Curling Cloze Test	55
Figure 13: Wigs and Hairpieces.	61

SECTION 1
READABILITY

In order to plan for intervening in situations of reading deficiency, several pieces of information are required. First, it must be known how urgent the ability to read actually is, in the context of both curriculum and occupational requirements. This does not suggest that reading, in the general literacy sense, may not be important. Educators clearly recognize that reading ability is crucial if learning is to occur. What this first question addresses is an examination of objectives and their component tasks to ascertain how much reading is required to complete the tasks and, ultimately, the objectives of the course.

Although there has been no research to date to distinguish between curricular and occupational reading requirements (Reference Note¹) it is not difficult to visualize differences between textbook reading and, for example, manufacturers maintenance manuals. When Barrett in The Van Dean Manual (1979, p. 29) advised cosmetology students that before using quaternary ammonium compounds they must "read and follow manufacturers directions," it was intended that the student of cosmetology read this literature. That directive identifies two kinds of reading: that which is required to read the textbook (curricular) and that required to read the manufacturer's instructions (occupational). Previous research (De. W. Smith, 1974; Thornton, 1977; Thornton, 1980) suggests that there could be significant differences in the readability level of sections of textbooks dealing with specific

tasks and the readability level of literature pertaining to the performance of those tasks.

It is a fact that reading literature peculiar to an occupational specialty at least implies that some form of reading is a vocational skill. Thus, the second bit of information must be collected: It must be known (or decided) if the teacher, the school, and the school district intend to address reading within the vocational curriculum or as prerequisite skill. If reading is to be dealt with in the vocational curriculum, then all students must receive some form of vocational reading instruction. If, however, reading skill is envisioned to be prerequisite then the thrust of reading in vocational settings would be toward dealing with deficiencies. The strategies, in the latter situation, would be individualized and delivered on a case by case basis.

The previous two pieces of procedural information are fairly general; the third and fourth are specific. The third deals with how difficult literature in a specific occupational curriculum is to read. What is the readability level? The fourth deals with how able students are in terms of reading ability. Can students read literature necessary to succeed in a vocational program? We shall deal with these issues separately.

Readability Procedures

Readability procedures are devices to estimate the grade reading level (GRL) of selected pieces of literature. In other

words, a readability analysis determines the approximate GRL a person must possess in order to read the literature analyzed. Note the underlining of estimate and approximate. It must be cautioned that, although these procedures have been validated by extensive research, they are not the sole determinants of readability. Muncrief (1975) discussed a variety of other considerations that are involved in readability assessments. For our purposes of matching literature assessment to student ability an index of readability is a useful measure.

There is a second caution needed about readability procedures. Preliminary results of current research (Reference Note²) brings up serious questions about trying to find an average readability level of occupational literature. For example, what does it mean that the average (the word "mean" is normally substituted for the word "average") readability level of a textbook is ninth (9th) grade? Because the word average or mean is used, it can be assumed that some of the literature is higher than ninth and some of it lower. What the average does not tell us is the range of readability levels and the concentration (mode at any level) of readability level.

In order to make sense out of that argument, a little must be known of how readability assessments are done. When analyzing a textbook (or any other lengthy piece of literature) random samples are selected. These samples are analyzed and an average of all of their readability levels is calculated. That average is

the mean readability level of the literature. We will get more explicit about how this is done in the next section.

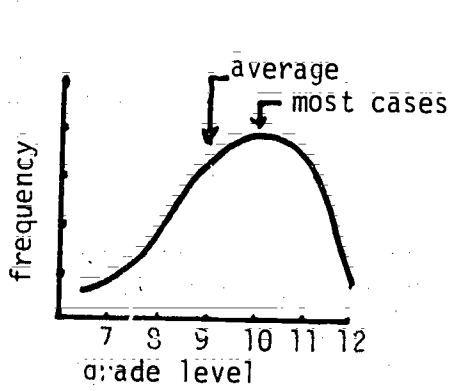
To point out the problem with using the mean (average) some hypothetical samples have been graphed below. The graphs show the curve which would result if the frequencies of grade level of samples were plotted on the graph. The vertical axis of the graphs represents the frequency that samples were found to be at a particular grade level. The horizontal axis represents the specific grade levels. (See Figure 1)

All of the preceding graphs are of books at the ninth grade readability level. But they all differ in the range (highest and lowest), the concentration (mode) of levels. The point here is simply that the mean or average can be a deceptive statistic. The analysis can still be useful, providing the results include the range and distribution of readability scores sampled.

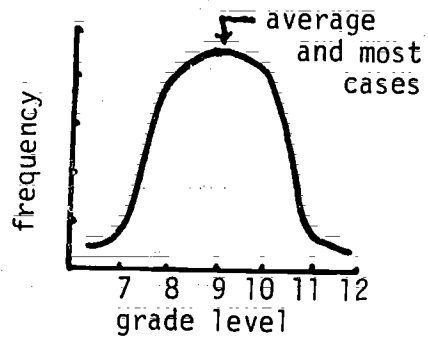
Two readability procedures will be discussed: (1) Fry procedure (See Figure 2); and (2) Flesh procedure (See Figure 3).

A form for calculating has been included to simplify the Flesh Formula calculations. (See Figure 4)

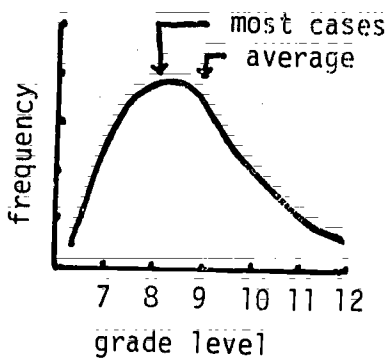
Figure 1: Sample Readability Graph



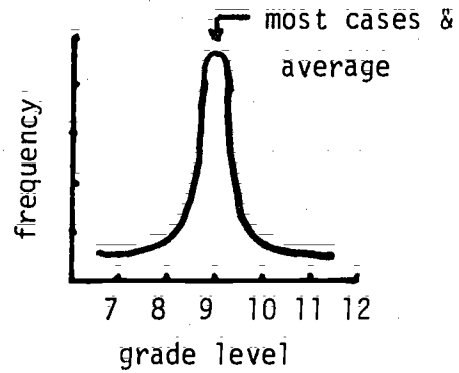
(most cases above 9th)



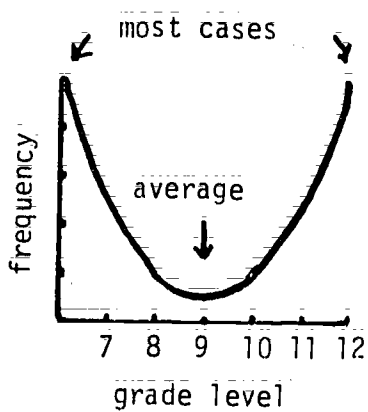
(most cases at 9th
substantial variability)



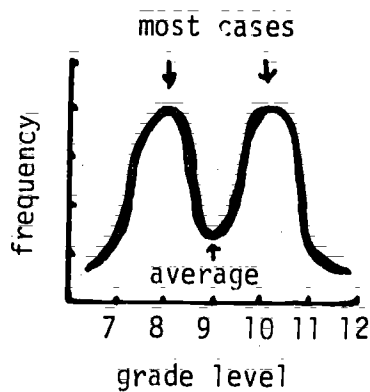
(most cases below 9th)



(most cases at 9th
slight variability)



(most cases at highest
and lowest levels)



(most cases one grade
higher and lower than
average)

Figure 2: GRAPH FOR ESTIMATING READABILITY
 by Edward Fry, Rutgers University Reading Center, New Jersey
 Average number of syllables per 100 words

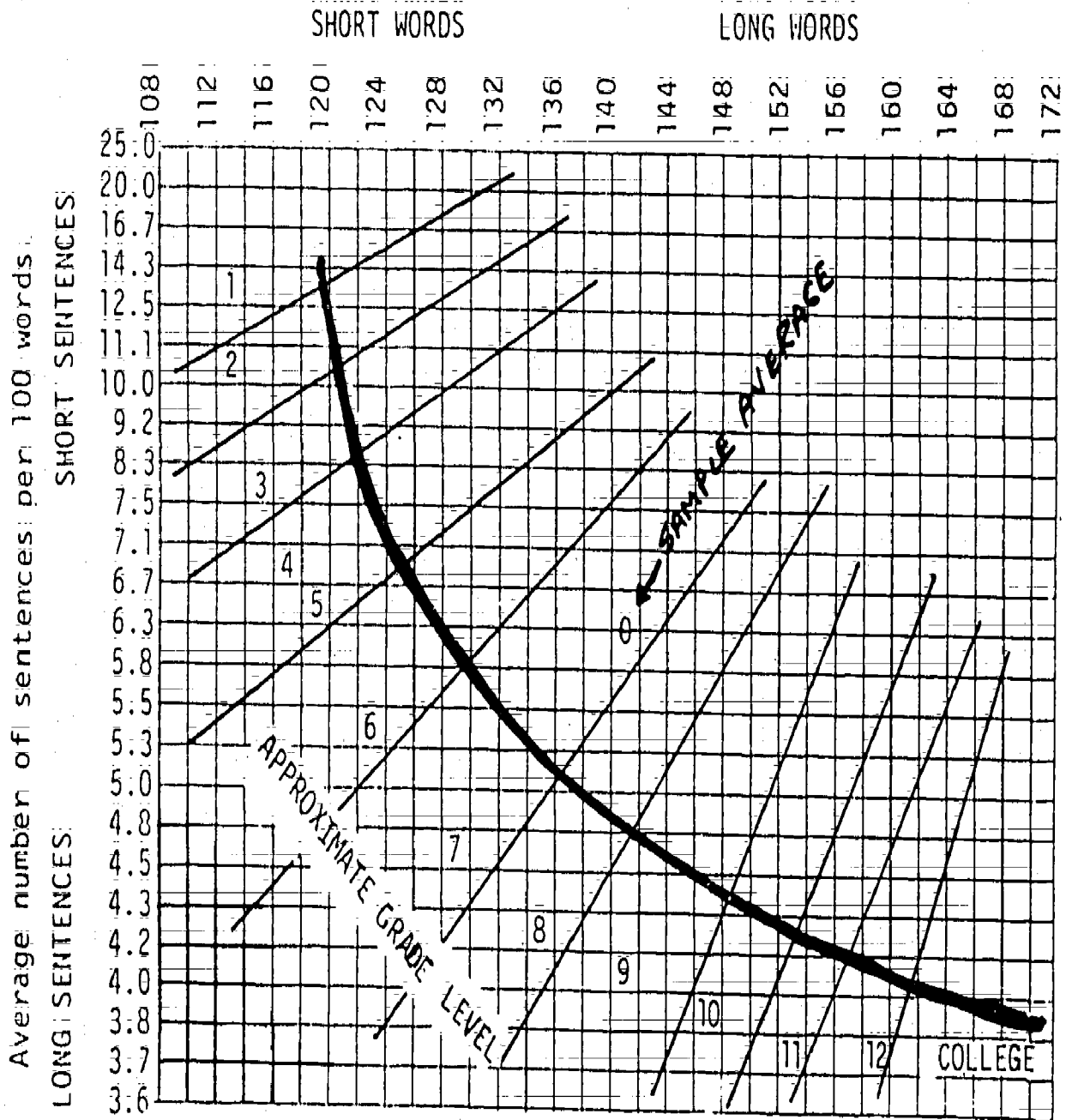


Figure 2 (Continued)

Directions: Use a stratified random procedure, at least five percent for books, more for shorter materials. For example: If a book is 350 pages long, five percent equals 17.5. $350 \div 17.5$ equals 20. Select a starting number, for example: 6. The first sample page is 6; then 26; then 46; then 66; etc. If one of the pages has no text proceed one page at a time forward until a page is found from which a sample can be taken.

From each of these pages select 100 word passages (alternate positions on page from which taken. For example: beginning, middle, ending). Plot the average number of syllables and average number of sentences per 100 words on the above graph.

This will give you the average readability of the book.

Example:

	<u>Syllables</u>	<u>Sentences</u>
First 100 Words	124	6.6
Second 100 Words	141	5.5
Third 100 Words	158	6.3
Average	141	6.3

Then plot the syllables and sentences for each sample. This will illustrate the range of readability for the literature being analyzed.

(For further information and validity data, see April, 1968 Journal of Reading and March, 1969 Reading Teacher.)

Figure 3: FLESH READABILITY FORMULA PROCEDURE

There is one readability procedure that is easily used with the assistance of a simple calculator. The Rudolph Flesh (1949) Readability Formula involves a count of the syllables in the sample and words per sentence in conjunction with a mathematical formula. The result is a "Reading Ease Score" which translates into grade reading level.

- I.
 1. Count the words in the sample (100 words or more, if available).
 2. Count the number of sentences.
 3. Divide the total number of words by the total number of sentences.
 4. Multiply that total (average number of words in a sentence) by 1.015.
- II.
 1. Count the syllables in the sample.
 2. Multiply the number of syllables by 100.
 3. Divide that total by the number of words in the sample.
 4. Multiply that total by .846.
- III. Add I and II.
- IV. Subtract III from 206.835. That is the reading ease score. It translates accordingly:

<u>R. E. Score</u>	<u>Grade</u>	<u>R. E. Score</u>	<u>Grade</u>
115-120	1	80- 89	6
110-114	2	70- 79	7
105-109	3	60- 69	8.5
100-104	4	50- 59	11
90- 99	5	30- 49	14.5
		0- 29	College Grad.

Flesh, Rudolph. The Art of Readable Writing. New York: Harper and Brothers, 1949.

Figure 4: Flesh Readability Procedure Form

Textbook _____ Publisher _____

$Pg.\# \times Wds. \div \overset{X}{\#Sent} \times 1.015$ $\overset{Y}{\#Syl} \times 100 \div Wds. \times .846$



Figure 4 (Continued)

Minus (x + y) R.E. Score

206.835		
206.835		
206.835		
206.835		
206.835		
206.835		
206.835		
206.835		
206.835		
206.835		
206.835		
206.835		
206.835		
206.835		
206.835		
206.835		
206.835		
206.835		
206.835		
206.835		
206.835		
206.835		
206.835		
206.835		
206.835		
206.835		
206.835		
206.835		
206.835		
206.835		
206.835		
206.835		
206.835		
206.835		
206.835		
206.835		
206.835		
206.835		

<u>R.E. Score</u>	<u>Grade</u>
115-120	1
110-114	2
105-109	3
100-104	4
90-99	5
80-89	6
70-79	7
60-69	8.5
50-59	11
30-49	14.5
0-29	College Grad.

The textbook sample in Figure 5 demonstrates the rules.

Instructions for Calculations

WORD COUNT - Fry: Count all words up to 100 words (may end in partial sentence. **Flesh:** Count all words up to approximately 100 (end on full sentence).

Numbers - such as 30, 1951, 27-A, L78G are all counted as one word.

Hyphenated words - one word.

Abbreviations - one word.

Acronyms - such as PVA, NSU, USA, AVA are each counted as one word.

SENTENCES - Fry: Count the sentences and determine the tenth of a sentence when ending in a partial sentence. **Flesh:** Count all sentences.

Parenthetical expression - (enclosed in brackets) is one sentence even if contained in another sentence.

Semi-colon or colon - If there is a semi-colon or colon in what we usually consider a sentence, that is considered to be another sentence. The easiest way to handle that is to count one sentence overall and add one sentence - count for each colon or semi-colon in the sentence.

RECORDING - Fry: Write down the number of sentences per 100 words. In the example the 100th word is "for." There are 6 full sentences, plus the partial sentence ending in "for." There are 15 words up to and including "for" and 19 words in the sentence. Divide 15 by 19 ($15 \div 19$). That result is approximately .79 and

FIGURE 5: SAMPLE WITH WORD COUNT OVER WORDS

1 2 3 4 5
PRE-WRAP WETTING OR MOISTENING. FOLLOWING
6 7 8 9 10 11 12 13
SHAMPOOING AND TOWEL DRYING, MOISTEN THE HAIR WITH
14 15 16 17 18 19 20 21 22
A WEAK SOLUTION OF THE WAVING LOTION, TO FACILITATE
23 24 25 26 27 28 29 30
THE WRAPPING PROCEDURE. APPLY THE LOTION WITH A
31 32 33 34 35 36 37 38 39
BOTTLE APPLICATOR TO AN ENTIRE SECTION AT A TIME.
40 41 42 43 44 45 46 47 48
START ABOUT ONE-HALF INCH FROM THE SCALP AND EXTEND
49 50 51 52 53 54 55 56 57 58
THE LOTION TO WITHIN ONE INCH FROM THE HAIR ENDS.
59 60 61 62 63 64 65 66
TO ASSURE A COMPLETE AND EVEN DISTRIBUTION, APPLY
67 68 69 70 71 72 73 74 75
THE LOTION FROM THE TOP, AND COMB THROUGH THE
76 77 78 79 80 81 82
SECTION FROM UNDERNEATH USING AN UPWARD MOTION.
83 84 85 86 87
REWETTING OR SATURATION. AFTER SUB-SECTIONING
88 89 90 91 92 93 94 95 96
AND WINDING THE CURLS OVER THE ENTIRE HEAD, THE
97 98 99 100 101 102 103
HAIR IS READY FOR REWETTING OR COMPLETE
104
SATURATION.

(BARRETT, D. OP. CIT., P. 182)

rounds to 0.8. Therefore, for the Fry sentence count there are 6.8 sentences per 100 words. Flesh: Count to the end of the sentence in which the 100th word occurs. Therefore, there are 104 words and seven sentences. Enter these figures on the form and complete the math involved.

SYLLABLES - Syllables are counted in the same way for each procedure. An easy way is to count only those syllables over 1 for each word. For example:

1 2 3 4 5 6
Ap/ply the lo/tion with a bot/tle ap/pli/ca/tor to an
7 8
en/tire sec/tion at a time.

Complete the counting for the entire passage in the same manner. Your total then is added to the total number of words (100 for Fry; 104 for Flesh, in this example). That gives you the total syllable count.

RECORDING - Fry: Write down the total number of syllables. On the graph plot the total syllables (across) to the number of sentences per 100 words. That will give you the approximate readability level of that passage. Flesh: Write down the number of syllables in the space on the form and complete the mark as noted. Then add x and y and subtract that figure from 206.835. That is the Reading Ease score and translates to grade level on the chart.

The total sample syllable count and results for Flesh and Fry methods follow in Figure 6.

FIGURE 6: SAMPLE TEXT WITH SYLLABLES MARKED

PRE-/WRAP WET/TING OR MOIST/EN/ING. FOL/LOW/ING
SHAM/POO/ING AND TOW/EL DRY/ING, MOIST/EN THE HAIR
WITH A WEAK SO/LU/TION OF THE WAV/ING LO/TION TO
FA/CIL/I/TATE THE WRAP/PING PRO/CE/DURE. AP/PLY
THE LO/TION WITH A BOT/TLE AP/PLI/CA/TOR TO AN
EN/TIRE SEC/TION AT A TIME. START A/BOU T ONE-/HALF
INCH FROM THE HAIR ENDS. TO AS/SURE A COM/PLETE
AND E/VEN DIS/TRI/BU/TION, AP/PLY THE LO/TION FROM
THE TOP, AND COMB THROUGH THE SEC/TION FROM
UN/DER/NEATH US/ING AN UP/WARD MO/TION.

RE/WET/TING OR SAT/UR/A/TION. AF/TER
SUB-/SEC/TION/ING AND WIND/ING THE CURLS O/VER THE
EN/TIRE HEAD, THE HAIR IS READ/Y FOR RE/WET/TING
OR COM/PLETE SAT/UR/A/TION.

(BARRETT, D. OP. CIT., P. 182)

The following results were obtained from readability analyses of the preceding sample.

Fry:

100 words

6.8 sentences

147 syllables

8th grade

Flesh:

104 words

7 sentences

157 syllables

R.E. Score 64.04

8.5 grade

Exercise 1

Following are three examples selected from other sections of the same textbook. Practice the procedure, marking syllables and sentence count directly on the samples.

EXERCISE 1 SAMPLE 1

A NEUTRAL OR CREAM RINSE, OR A HAIR CREAM, MAY BE APPLIED TO PROTECT THE PERMANENT AND TO FACILITATE THE STYLING OF THE HAIR. HOWEVER, A CREAM RINSE SHOULD NOT BE APPLIED TO A SHALLOW WAVE OR BODY PERMANENT WAVE, LEST IT RELAX THE HAIR TO THE POINT WHERE THE WAVE IS ALMOST COMPLETELY ELIMINATED. IF THE MANUFACTURER HAS INCLUDED A SPECIAL RINSE WITH THE PRODUCT, IT WILL PREVENT EXCESSIVE STRETCHING WHILE COMBING AND WILL COUNTERACT ANY ALKALINE RESIDUE. SETTING LOTION, IF USED, SHOULD BE OF A LIGHT CONSISTENCY. AVOID EXCESS TENSION IN STYLING THE HAIR.

1. CHECK FOR SCALP ABRASIONS.

(BARRETT, D., OP. CIT., P. 189)

EXERCISE 1 SAMPLE 2

THE ANCIENTS REGARDED LONG, POLISHED AND COLORED FINGERNAILS AS A MARK OF DISTINCTION BETWEEN THE ARISTOCRAT AND THE COMMON LABORER. MANICURING, ONCE CONSIDERED A LUXURY FOR THE FEW, IS NOW WITHIN REACH OF THE GENERAL PUBLIC. IN FACT, EVERY WELL-GROOMED PERSON RESORTS TO REGULAR MANICURES.

MANICURING IS NOT LIMITED TO THE HANDS OF WOMEN. MORE AND MORE MEN REQUEST THE SERVICES OF A MANICURIST WHEN THEY VISIT A MEN'S HAIRSTYLING SALON OR BARBER SHOP FOR THEIR HAIR CARE AND OTHER GROOMING NEEDS.

THE WORD MANICURING IS DERIVED FROM THE LATIN "MANUS" (HAND) AND "CURA" (CARE), AND MEANS THE CARE OF THE HANDS AND NAILS. THE PURPOSE OF A MANICURE IS TO IMPROVE THE APPEARANCE OF THE HANDS AND NAILS.

(BARRETT, D., OP. CIT., P. 269)

EXERCISE 1 SAMPLE 3

THERE ARE SEVERAL METHODS OF TEMPORARY HAIR REMOVAL WHICH WILL BE DISCUSSED IN ANOTHER SECTION OF THIS CHAPTER. THIS SECTION WILL CONCERN ITSELF ONLY WITH PERMANENT HAIR REMOVAL, WHICH IS ACCOMPLISHED BY ELECTROLYSIS;

NO ONE DREAMED THAT UNWANTED HAIR COULD BE REMOVED PERMANENTLY UNTIL 1875, WHEN DR. CHARLES E. MICHEL, AN OPHTHALMOLOGIST, USED AN ELECTRIC CURRENT DIRECTED THROUGH A THIN WIRE TO REMOVE INGROWING EYELASHES. WHEN HE FOUND THAT THE LASHES DID NOT GROW BACK, HE SUGGESTED THAT THIS METHOD COULD BE VALUABLE IN REMOVING UNWANTED HAIR FROM THE FACE.

A FEW DERMATOLOGISTS TRIED DR. MICHAEL'S METHOD, BUT THE PROCESS WAS SO SLOW AND TEDIOUS THAT IT COULD NOT BE USED TO ANY GREAT EXTENT.

(BARRETT, D., OP. CIT., P. 341)

SAMPLES: HOW SELECTED AND HOW MANY

It is important, if an accurate picture of the literature is to be obtained, that the samples to be analyzed be selected at random. Too many subjective errors would be introduced by merely paging through the book, picking what appears to be representative samples. The easiest way and one that is sufficiently random is entitled a stratified random sampling.

In order to achieve the stratified random sample, it must first be decided how many samples are to be drawn. A useful rule is to select samples from 5% of the pages in the book. Remember, however, that the more samples drawn, the more accurate will be the analysis. That point is demonstrated in the following analyses (See Figure 7) of the textbook under consideration in which 3, 6, 10, 15 were drawn. (Average was used in this case to distinguish between results of analyses in which increasing number of samples were drawn.)

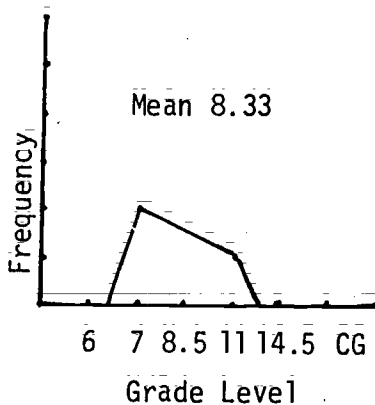
It is recommended that 5% sample or more be drawn for accuracy.

Procedure: Assume a book has 300 pages (not including glossary or index). A 5% sample requires $(.05 \times 300)$ 15 samples. To establish the starting page divide the total pages (300) by the total samples required (15). That result is 20. Randomly pick a number from 1-20. This can be done using numbers in a hat. That number is the starting page. Let's assume it is 6. The remainder

Figure 7: Sample Graphs of GRL
 Frequencies: 3, 6, 10, 15 Samples

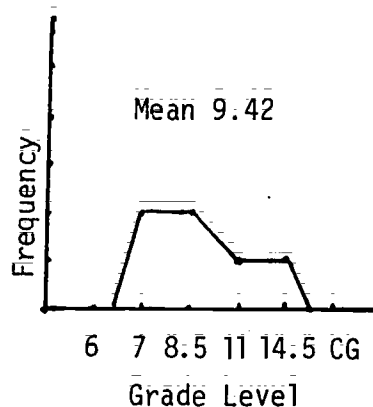
3 Samples

GRL	Freq.
7	2
11	1



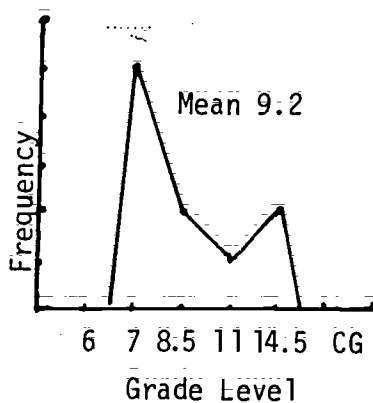
6 Samples

GRL	Freq.
7	2
8.5	2
11	1
14.5	1



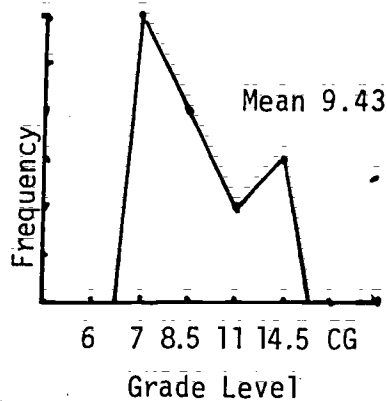
10 Samples

GRL	Freq.
7	5
8.5	2
11	1
14.5	2



15 Samples

GRL	Freq.
7	6
8.5	4
11	2
14.5	3



of the pages are selected by adding 20 to 6, 20 to 26, 20 to 46, etc. until all the samples are drawn.

Now we know the pages of the book we will use in the analysis. If any of those pages contains no text (some may be pictures or diagrams) move one page at a time forward or backward until text is found. It is also recommended that the sample 100 words be selected alternatively from the beginning (B) and end (E) of the page. Therefore, page 6 would be 6-B (for beginning), page 26-E (for end), page 46-B, etc.

Exercise 2

Compute a stratified random sample schedule for the following:

1. Textbook with 350 pages.
2. Textbook with 1000 pages.
3. Textbook with 525 pages.

If the literature you plan to analyze contains less than 200 pages, but more than 25, select 10 samples. For literature of less than 25 pages, but more than 5, select every other page. For literature less than 5 pages, take a sample of every page.

On the following page (See Figure 8) is a form to assist you in recording your findings. It is always a good idea to keep a file of literature analyzed.

Figure 8: Readability Record

Author(s):

Title of Literature:

Publisher:

Publication Data:

Total Number of pages:

Percent of pages sampled:

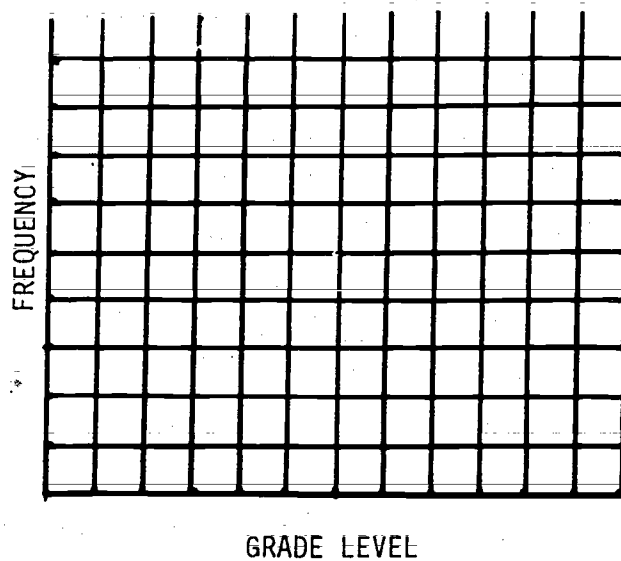
Procedure used:

Page numbers from which samples were taken:

Highest readability:

Lowest readability:

Graph for Plotting Results



SECTION 2
CLOZE PROCEDURE

STUDENT READING ABILITY

Diagnostic reading test scores are often available for students in vocational programs. These scores, normally on file at the home school (in the counselors office at the comprehensive high school), are useful indicators of a student's general reading ability. How well they relate to vocational reading requirements is subject to conjecture. There simply has not been a concerted effort to separate vocational reading skill from general literacy skill. Because of these unknowns it is strongly recommended that you not accept a GRL score as final. Standardized reading test scores are useful indicators, but they should be supplemented with teacher made vocational reading tests.

A useful and highly adaptable reading test is the cloze procedure.

The cloze procedure is an objective measure of language correspondence between reader and writer. It consists of a cloze (word) unit, a single occurrence of a successful attempt to reproduce accurately a part deleted from a message, by deciding from the context that remains what the missing part should be (Taylor, 1953).

The cloze procedure differs from vocabulary contextual texts. Rather than choosing omitted words because of definition and purpose, the cloze units are chosen mechanically; every fifth word, for example, occurring at any point in a continuous passage is omitted. The cloze design incorporates control against misrepresenting strength/weakness in content vocabulary as an indication of the test subject's ability/inability to read (Thornton, 1979).

Any piece of literature can be clozed. That includes textbooks, occupational literature, safety messages, codes, medical contraindications, literally anything. The procedure is described below:

1. Select a piece of literature.
2. Leave the first sentence intact.
3. Delete every fifth word.
4. Leave the last sentence intact.
5. Instruct the student to read the entire passage first, then begin filling in the blanks.
6. Instruct the student to be aware when guessing is the rationale for word selection, but to guess when other rationale fails.

Scoring the test is accomplished as follows:

0-39.9% Frustrational level (Student will not be able to read the literature)

40.0-69.9% Instructional level (Student will require intervention to be able to read the literature)

70.0-100.0% Independent level (Student is able to read the literature without intervention)

On the following pages five different cloze tests have been prepared using on-the-job literature. The correct words which have been deleted are listed following each example.

FIGURE 9: HAIR CONDITIONER
CLOZE TEST

THERE ARE SO MANY HAIR CONDITIONERS AVAILABLE THAT YOU MUST KNOW EXACTLY WHAT THOSE USED IN YOUR SCHOOL OR SALON CAN AND CANNOT DO. THERE ARE FIVE GENERAL _____ OF HAIR CONDITIONERS.

1. _____ CONDITIONERS USUALLY HAVE A _____ OIL (FOR EXAMPLE, BALSAM) _____, WHICH BENEFITS THE HAIR _____ RESTORING MOISTURE AND OILS. _____ TYPE OF CONDITIONER OFTEN _____ AN ACID PH. THE _____ CONDI- TIONER COATS THE HAIR _____ USUALLY DOES NOT PENETRATE _____ THE CORTEX TO REPLACE _____ IN THE HAIR SHAFT. _____ TYPE MAY MAKE FINE _____ TOO OILY AND LIMP _____, THUS, DIFFICULT TO COMB _____.

INSTANT CONDITIONERS ARE APPLIED _____ SHAMPOOED HAIR THAT HAS _____ TOWEL-DRIED. WHEN YOU USE _____ KIND OF CONDITIONER, LET _____ STAY ON THE HAIR _____ 1 OR 2 MINUTES; _____ RINSE THE EXCESS CONDITIONER _____ HAS NOT BEEN ABSORBED _____ THE HAIR.

FIGURE 9 (CONTINUED)

2. INSTANT _____ AND SETTING AIDS ARE _____ STRONG SETTING LOTIONS THAT _____ HAVE A LITTLE ANIMAL _____ VEGETABLE PROTEIN. THESE CONDITIONERS _____ MADE TO INCREASE THE _____ OF THE HAIR SHAFT. _____ OF THE SETTING AID _____ AN AFFINITY (ATTRACTION) FOR _____ CUTICLE OF THE HAIR _____. THEIR PH CAN BE _____ ACID OR ALKALINE. THIS _____ OF CONDITIONER OFTEN IS _____ BETWEEN COLD WAVES TO _____ THE HAIRSTYLE LAST LONGER. _____ HAS AN ANTIHUMECTANT, WHICH _____ AN ANTIHUMIDITY BARRIER BETWEEN _____ HAIR SHAFT AND THE _____ IN THE AIR TO _____ PRESERVE THE STYLE OF _____ HAIR. THIS TYPE OF _____ IS PARTICULARLY GOOD FOR _____ HAIR. MOST INSTANT CONDITIONING AND SETTING AIDS ARE MADE IN DIFFERENT STRENGTHS FOR FINE, NORMAL (NOT TINTED OR LIGHTENED), TINTED, AND BLEACHED HAIR.

DALTON, J. W. THE PROFESSIONAL COSMETOLOGIST, ST. PAUL, MINNESOTA: WEST PUBLISHING COMPANY, 1979, P. 80.

FIGURE 9 (CONTINUED)

TYPES	TO	HAVE
INSTANT	BEEN	THE
VEGETABLE	THIS	SHAFT
BASE	IT	EITHER
BY	FOR	TYPE
THIS	THEN	USED
HAS	THAT	MAKE
INSTANT	BY	IT
AND	CONDITIONING	MAKES
INTO	MAINLY	THE
KERATIN	ALSO	MOISTURE
THIS	OR	HELP
HAIR	ARE	THE
AND	DIAMETER	CONDITIONER
OUT	PARTS	FINE

FIGURE 10: SCALP TREATMENT
CLOZE TEST

SCALP MANIPULATIONS ARE VERY BENEFICIAL. THEY
STIMULATE _____ NERVES, MUSCLES, AND GLANDS
_____ THE SCALP. THEY ALSO _____ THE
CIRCULATION OF BLOOD; _____ NOURISHES THE SCALP
TISSUES;

ALTHOUGH _____ HAS NEVER BEEN SCIENTIFIC
_____ TO PROVE THAT SCALP _____ PROMOTE
HAIR GROWTH; YOU _____ OBSERVE THAT A CLIENT'S
_____ LOOKS HEALTHIER AFTER A _____ MANIP-
ULATION. IT IS TRUE _____ A HEALTHY SCALP IS
_____ LIKELY TO HAVE MORE _____ HAIR THAN AN
UNHEALTHY _____. THEREFORE ANYTHING, SUCH AS
_____ MANIPULATIONS, THAT CONTRIBUTES TO
_____ HEALTHY SCALP IS AN _____ SERVICE.
HOWEVER, YOU MUST _____ PROMISE HAIR GROWTH TO
_____ CLIENT;

SCALP MANIPULATIONS ARE _____ IMMEDIATELY
AFTER THE SHAMPOO _____. THEY SHOULD NOT BE
_____, HOWEVER, IF THE HAIR _____ TO BE
COLD WAVED; _____ COLORED; CHEMICALLY

FIGURE 10 (CONTINUED)

STRAIGHTENED, OR _____ DURING THE APPOINTMENT.

SUPPLIES

- _____ TOWEL
- SCALP CONDITIONER
- ELECTRIC _____ OR
- HEATING CAP
- PLASTIC _____

PROCEDURE

RATIONALE

1. ASK THE _____
WHAT SERVICES ARE
SCHEDULED.

1. _____, BRUSHING,
AND SCALP TREATMENTS
_____ ACCORDING
TO SERVICES THAT
_____.

_____ DETERMINE THE 2. BRUSH AND SHAMPOO
STEP-BY-STEP PROCEDURES
_____ HAIR BEFORE
_____ YOU SHOULD
SCALP TREATMENTS
FOLLOW; THOROUGHLY
_____ CHEMICAL
_____ YOUR HANDS
SERVICES (LIGHTENING,
WITH SOAP _____
HOT WATER. COLD _____,
PERMANENT COLORING, OR

FIGURE 10 (CONTINUED)

RATIONALE (CONTINUED)

CHEMICAL _____)

ARE TO FOLLOW: YOU
SHOULD NOT BRUSH, AND
YOU SHOULD NOT GIVE
MANIPULATIONS BEFORE
THESE CHEMICAL SERVICES.

DALTON, J.W. OP. CIT., 1979, P. 87.

FIGURE 10 (CONTINUED)

THE	SCALP	UNDER-CAP
IN	A	CLIENT
INCREASE	APPROPRIATE	2.
WHICH	NOT	THAT
THERE	THE	WASH
EVIDENCE	GIVEN	AND
MANIPULATIONS	SERVICE	SHAMPOOING
MAY	GIVEN	VARY
SCALP	IS	FOLLOW
SCALP	PERMANENTLY	THE
THAT	LIGHTENED	UNLESS
MORE	LAUNDERED	WAVING
HEALTHY	STEAMER	STRAIGHTENING
ONE		

FIGURE 11: SCULPTURED CURL

CLOZE TEST

WHEN MAKING A SCULPTURED CURL, YOU SHOULD BEGIN
SETTING FROM THE OPEN END AND LET THE CIRCLE END OF
THE CURL BEING MADE OVERLAP THE BASE OF THE PRECEDING
CURL (THE ONE BEFORE IT). NOTE HOW THE HAIR

_____ OF CURL 2 OVERLAP _____ BASE OF
CURL 1.

_____ IS TRUE FOR ALL _____ CURLS; THE
KIND OF _____ DESIGNED INTO THE HAIR _____

SET IN CURLS WILL _____ WHAT THE FINISHED

HAIRSTYLE _____ LIKE. ALL THE SEMICIRCULAR

_____ SHAPINGS MUST REMAIN PARALLEL _____

EACH OTHER; OTHERWISE, THE _____ DIRECTION OF

THE SHAPING _____ BE DISTURBED. THE HAIR

_____ TO PIVOT (TURN) FROM _____ POINT AT

THE BOTTOM _____ THE SHAPING TO RETAIN

_____ PARALLEL SHAPINGS FOR THE _____ (SEE

POINT A ON _____, 8.6).

SCULPTURE CURLS GET _____ NAME FROM THE

WAY _____ ARE COMBED INTO THE _____. A

DESIGN IS COMBED _____ THE HAIR, AND THE

FIGURE 11 (CONTINUED)

_____ THEN ARE SECURED CLOSE _____ THE
HEAD. THIS IS _____ TO THE WAY A _____
MAKES A STATUE. THE _____ WORKS THE GENERAL
PATTERN (_____ BLUEPRINT) OF HIS CREATION
_____ THE MARBLE AND THEN _____ IN THE
SPECIFIC DETAILS. _____ DESIGN COMBED INTO THE
_____ FOR SCULPTURE CURLS IS _____ A
SHAPING. (SCULPTURE CURLS _____ SOMETIMES
CALLED PIN CURLS, _____ THE OLD-FASHIONED PIN
CURL _____ NOT CARVED FROM A _____.)
SHAPINGS SHOULD BE COMBED _____ EITHER A
CLOCKWISE (C.W.) _____ COUNTERCLOCKWISE (C.C.W.)
DIRECTION. ONCE _____ COMB THE SHAPINGS
INTO _____ HAIR, YOU CAN PLACE _____ CURLS
INTO IT. HOWEVER, YOU MUST NOT DISTURB THE SHAPING
AFTER YOU HAVE SECURED THE CURL WITH A CLIP.

DALTON, J.W. OP. CIT. 1979, PP. 110-111.

FIGURE 11 (CONTINUED)

ENDS	OF	INTO
THE	THE	CHISELS
AS	CURLS	THE
SCULPTURE	FIGURE	HAIR
SHAPING	THEIR	CALLED
AND	THEY	ARE
DECIDE	HAIR	ALTHOUGH
LOOKS	INTO	WAS
BASE	CURLS	SHAPING
TO	TO	IN
BASE	SIMILAR	OR
WILL	SCULPTOR	YOU
HAS	SCULPTOR	THE
A	OR	SINGLE

DALTON, J.W. OP. CIT. 1979, PP. 110-111

FIGURE 12: THERMAL CURLING
CLOZE TEST

THERMAL CURLING OR WAVING WAS ORIGINALLY CALLED MARCELING OR MARCEL WAVING. IT WAS NAMED _____ MARCEL GRATEAU, A FRENCHMAN _____ PERFECTED THE TECHNIQUE IN _____. THE ORIGINAL THERMAL IRONS _____ WERE CALLED MARCEL IRONS; _____ IRONS HAD TO BE _____ OF VERY FINE-QUALITY STEEL _____ THAT THEY COULD BE _____ EVENLY. VARIOUS TECHNIQUES WERE _____ TO APPLY THE HEATED _____ EVENLY TO THE HAIR; _____ SMALL GAS BURNER WAS _____ SPECIFICALLY FOR HEATING A _____ IRON. SPECIAL MARCELING COMBS _____ OF HARD, NON-FLAMMABLE RUBBER _____ USED.

SINCE THAT TIME, _____ IMPLEMENTS AND TECHNIQUES HAVE _____ IMPROVED. THE PRESSING COMB _____ TODAY IS MADE OF _____ AND BRASS AND HAS _____ WOODEN HANDLE. THE COPPER _____ BRASS COMB HEATS AND _____ HEAT BETTER THAN COMBS _____ OF OTHER METALS. PRESSING _____ GENERALLY COME IN 3 _____.

FIGURE 12 (CONTINUED)

THE SMALLER, OR MIDGET, _____ IS USED TO STRAIGHTEN _____ HAIRS AROUND THE HAIRLINE; _____ LARGER COMBS (WITH WIDE _____ NARROW TEETH) ARE USED _____ STRAIGHTEN HAIR IN THE _____, TOP, AND UPPER SIDE _____. SOME SILKING (PRESSING) COMBS _____ SELF-CONTAINED HEATING UNITS AND _____, BUT MOST MODERN SILKING _____ ARE HEATED INSIDE AN _____ HEATER. GAS HEATERS WERE USED IN THE PAST, BUT THEY ARE RARELY USED ANYMORE.

DALTON, J.W. OP. CIT., 1979, PP. 278-279.

FIGURE 12 (CONTINUED)

AFTER	MARCEL	SIZES
WHO	MADE	COMB
1875	WERE	SHORTER
THEMSELVES	BOTH	THE
THESE	BEEN	OR
MADE	USED	TO
SO	COPPER	CROWN
HEATED	A	SECTIONS
USED	AND	HAVE
IRON	HOLDS	CORDS
A	MADE	COMBS
DESIGNED	COMBS	ELECTRIC

DALTON, J.W. OP. CIT., 1979, PP. 278-279.

FIGURE 13: WIGS AND HAIRPIECES

TYPES OF WIGS AND HAIRPIECES

THE TERMS HAIRPIECES AND HAIRGOODS ARE USED TO DESCRIBE ANY OF THE FOLLOWING: WIGS, TOUPEES, POSTICHES, WIGLETS, CASCADES, CHIGNONS, SWITCHES, FALLS (OR MINIFALLS), ETC.

WIGS USUALLY _____ HAIRPIECES THAT COVER 80 _____ 100 PERCENT OF THE _____. A TOUPEE IS ALSO _____ WIG, BUT IT IS _____ A SPECIAL KIND OF _____. IT ORDINARILY COVERS LESS _____ 80 PERCENT OF A _____ HEAD.

POSTICHES (POS-TEESH-EZ) ARE _____ HAIRPIECES MADE FROM ANGORA _____ YAK HAIR. THEY ARE _____ AT THE BASE. THEY _____ USED IN AN ORNAMENTAL _____, USUALLY IN COMPETITION HAIRSTYLING. _____ COLORS CAN BE APPLIED _____ THEM FOR "FANTASY" STYLING _____

WIGLETS VARY IN SIZE _____ LENGTH. THEY ARE PUT _____ DIFFERENT AREAS OF THE _____ TO COMPLEMENT OR ENHANCE _____ HAIRSTYLE. IT IS COMMON _____ USE MORE THAN ONE _____ IN THE HAIR FOR "_____ " OR "EVENING" STYLES.

FIGURE 13 (CONTINUED)

CASCADES _____ OVAL-SHAPED BASES. THEY
CAN _____ IN LENGTH FROM 4 _____ 8 INCHES,
AND THEY _____ WORN IN THE UPPER _____
LOWER CROWN SECTIONS. THEY _____ LARGER THAN
A WIGLET, _____ SMALLER THAN A FALL,
_____ (SHEEN-YAHNZ) AND SWITCHES, WHICH
_____ LONG TRESSES OF HAIR _____ AT ONE
END, ARE _____ TO BUILD HEIGHT OR _____ IN
HAIRSTYLES. THEY ARE ARRANGED IN KNOTS, BRAIDED, OR
WOVEN THROUGH THE HAIR.

DALTON, J.W. OP. CIT., 1979, PP. 354-355.

FIGURE 13 (CONTINUED)

ARE	WAY	VARY
TO	PASTEL	TO
HEAD	TO	ARE
A	EFFECTS	AND
CONSIDERED	AND	ARE
HAIRPIECE	ON	BUT
THAN	HEAD	CHIGNONS
CLIENT'S	THE	ARE
SMALL	TO	SECURED
AND	WIGLET	USED
ROUND	COCKTAIL	VOLUME
ARE	HAVE	

DALTON, J.W. OP. CIT., 1979, PP. 354-355.

Exercise 3

Cloze the following passage and write out the instructions to the students regarding how they should proceed.

DISINCRUSTATION

Disincrustation describes a process that softens and liquifies grease deposits which are accumulations of sebum in the follicles. This sebum is usually filled with dead cells, makeup and grease. In order to do the disincrustation treatment, an alkaline solution is used to penetrate the follicle and dissolve the debris. For example, if you have heavy grease on your hands, you would use a soap, which is alkaline, to dissolve the grease. Disincrustation works in much the same way to dissolve the grease deposits in the pores. The disincrustation solution acts as a liquid type of soap. Disincrustation solutions are carefully formulated and are available from beauty supply manufacturers who carry products for estheticians. If the solution is not available, a simple formula can be prepared by mixing one level tablespoon (15ML) sodium bicarbonate (household baking soda) with one pint (0.7 Liter) distilled water. (Gerson, J., 1979, p. 289)

Exercise 3: Answer Sheet

Instructions

Words List:

The cloze procedure can also be used as a teaching technique. A variety of cloze modifications are useful for vocational teachers.

The changes in the procedure reflect the purpose of the exercise. If, for example, a cosmetology instructor wishes to highlight the procedures for counseling a client with an acne skin condition and be certain that the student reading the literature understands what is being read, the passage can be "clozed," deleting those words which are critical to the counseling literature comprehension. The following passage with "instructional modification" words (to be deleted) underlined illustrates the technique:

SAMPLE: INSTRUCTIONAL MODIFICATION CLOZE

The client will usually have questions about the severity of an acne condition. He or she may ask how many treatments will be required to achieve results, and how much a series of treatments will cost. If the acne condition has persisted for months or even years, it will be more difficult to clear. Acne requires more frequent treatments than other skin conditions. It is desirable to have the client come to the salon for treatments once or twice a week if at all possible. (Gerson, J. Op. Cit., 1979, p. 326)

Another modified cloze teaching technique is the "lexical cloze." Lexical is defined as relating to words of a language. The lexical cloze involves deletion of words according to the kinds of words they are, such as nouns, verbs, adjectives, etc.

A later segment of this article develops case grammar modifications utilizing the lexical cloze, establishing applicability for occupational education reading intervention. The example which follows illustrates use of subject deletions in a physiognomy application. The words to be deleted have been underlined:

The first associations between appearance and character and personality were made by people many centuries ago. The ancient Greeks devised a canon (an established rule or judgment) as a means of determining ideal proportions of the human face and body. Physiognomy (fiz e-og no-me) is the study of the face and features as related to the character or disposition of an individual. The ancient Greeks used it as a guide for artists in creating harmonious proportions and to serve as a basis for comparison. Painting, drawings, sculpture and in more recent times, photography help us to study concepts of attractiveness or unattractiveness throughout the ages. (Gerson, J. Op. Cit., 1979, p. 352)

When used as a teaching technique, the cloze procedure is easily adapted to provide for increasing degree of difficulty. Often vocational students have experienced a history of failures in reading. The pattern is conducive to diminished motivation in an attempt to read. In order to break the pattern and increase the likelihood of a motivated reader, a pattern of reading successes is useful. Literature of any level of readability can be clozed. Thus, vocational literature at a low readability level can be used for those students who need a success stimulus. In addition, for teaching purposes, synonymous or words close to the correct word can be accepted. The number of clozed words can

be decreased, instead of following a schedule. The next example illustrates this point:

THE CHARACTERISTICS OF AGE AS SEEN IN THE FACE

All living things go through the process of aging from birth to death. Aging cannot be prevented but the signs of aging can be controlled to a certain degree. The signs of aging differ from person to person and some people retain a youthful appearance longer than others. This is mostly due to heredity, to the individual's state of health and to skin care. Men and women undergo similar aging processes. (Gerson, J. Op. Cit.; 1979, p. 355)

For the word "aging," the student would be correct inserting "getting older," for example. Note that only four deletions have been made and all are heavily clued.

CASE GRAMMAR AND THE CLOZE PROCEDURE

Gibson and Levin (1979) describe Fillmore's theory of case grammar. ". . . which imaginatively combines syntactic and semantic features." The study of meanings (semantics) and the orderly system of words (syntax) combine in Fillmore's Case Concepts (Brown, 1973). The theory of case grammar is easily adapted to teaching techniques using the cloze procedure. The following illustrations demonstrate the usage:

Agentive (A) - "The typically animate, perceived instigator of action."

In performing shop or salon services the artisan must keep in mind the ultimate effect of each treatment on the cells of the human body (Powitt, A.H.; 1977, p. 9)

Instrumental (I) - "The inanimate force or object causally involved in the state or action named by the verb."

Summer increases the rate of sweating and this enables the skin to be kept naturally moist and prevents drying and chafing (Powitt, A.H., 1977, p. 25).

Dative (D) - "The animate being affected by the state or action named by the verb."

The epidermis is like a plastic, flexible envelope covering and protecting the entire human body (Powitt, A.H., 1977, p. 21).

Factive (F) - "The object or being resulting from the state or action named by the verb."

The natural color of the hair is due to the pigment (nulanis) which is present mainly in the cortex (Powitt, A.H., 1977, p. 95).

Locative (L) - "The location or spatial orientation of the state or action named by the verb."

To form waves in the hair, these changes in growth rate must take place within many follicles in the same area and at the same rate and direction (Powitt, A.H., 1977, p. 178).

Objective (O) - "The semantically most neutral case: anything representable by a noun whose role in the state or action named by the verb depends on the meaning of the verb itself."

Collapse of foam, with curds floating on the surface indicates soap (Powitt, A.H., 1977, p. 172).

Benefactive (B) - "A noun deriving benefit of the action of the verb."

Some shampoos leave the hair saturated with water and, therefore, are slow to dry (Powitt, A.H., 1977, p. 172).

Comitative (C) - "In accompaniment."

Sodium Hydroxide, in solution with Glycerine Monosterate or Stearic and Oleic Acids, plus a number of additives, makes a very efficient hair straightener (Powitt, A.H., 1977, p. 233).

Temporal (T) - "When the verb is accomplished or occurs."

The actual time taken to grow one complete wave in the hair would be at least one month... (Powitt, A.H., 1977, p. 178).

Modified cloze techniques can be used as introductory exercises, included in self-instruction packets, adapted for games, or structured for remedial work. They provide an excellent method of coordinating in-class vocational work and English or remedial reading treatment.

Exercise 4

Underline each word in the following passage which could be clozed by Fillmore rules, entering above the word the letter which indicates the rule used.

DISADVANTAGES OF HYDROGEN PEROXIDE

Stability. Hydrogen peroxide must be stabilized for storage in order to insure its strength because it can break down prematurely, releasing the oxygen that it contains. However, no guarantee can be given that even stabilized hydrogen peroxide will keep its strength over a long period. Moreover, there is no satisfactory way for the practitioner to test the hydrogen peroxide solution for stability.

Therefore, supplies should be purchased fresh, properly stored (in the refrigerator during hot weather) and bottles of hydrogen peroxide should not be kept if there are any doubts about their potency.

Effect of Metals. Hydrogen peroxide solutions react vigorously in the presence of metals. Therefore, metal bowls or implements should be kept away from the solutions. It is preferable to use wood, glass or plastic containers or bowls.

Hydrogen peroxide will react with metal salts which may have been used to tint the hair. For example, hair colored with "hair restorers" will cause a violent chemical change if lightened with hydrogen peroxide. The hair can be seriously damaged in the lightening process, therefore, a strand test must be made if metallic dyes are suspected.

Inaccurate Formula. When activating a liquid bleach, the practitioner has a tendency to add excessive amounts of ammonia to hydrogen peroxide solutions, since consistency does not serve as a guide to strength as in the case of the cream type lighteners. (Powitt, A.H., 1977, p. 256)

SECTIONS 3 - 6
READING VOCATIONAL TEXTS

READING VOCATIONAL TEXTS

The following four sections each present a set of important content reading skills. Only those skills particularly relevant to vocational texts have been included. Moreover, each skill has been broken down into segments requiring no more than 5-10 minutes of class time every other day. All homework utilizes the text assignments you would normally require at that point in your course. Because students must pay careful attention to their text in order to complete the reading skill assignment, they should more thoroughly understand the content material than they ordinarily would.

Each section presents the given skill using a variety of vocational examples. Opportunities are then provided for you to apply the skills so that you can be assured of mastering each one.

Following the individual skill discussions is a section called "Textbook Application." It is here that you apply each skill to your own course textbook. This second application accomplishes three purposes: 1) It allows you to locate examples and sample exercises that you can use in your classroom, thereby greatly reducing extra preparation time reading instruction might entail; 2) It enables you to tailor the skills to your text; and 3) It gives you an additional practice opportunity, this time using the same materials your students will use.

At the end of each section are additional suggestions for teaching the new skills.

SECTION 3-6 TIME FRAME

<u>SECTION</u>		<u>TIMING</u>
3	Basic Vocabulary Skills Formal definitions Synonyms Illustrations Glossaries Textbook application Teaching students basic vocabulary skills	Weeks 1 and 2
4	Paragraph Comprehension Paragraph subject Paragraph main idea Textbook application Teaching students paragraph comprehension	Weeks 3, 4 and 5
5	SQYR The SQYR method of study Textbook application Teaching SQYR	Weeks 6 and 7
6	Recognizing and recording complex information Classification Comparison Cause and effect Textbook application Teaching students to recognize and record complex information	Weeks 8, 9 and 10

SECTION 3
BASIC VOCABULARY SKILLS

Section 3

Basic Vocabulary Skills

Central to cosmetology is its specialized technical vocabulary. Complete and rapid comprehension of this vocabulary is imperative for the student. Because it is essential for students to understand the technical terms in their field, most textbook authors have taken care to provide definitions and other comprehension aids. The simplest of these is the use of italics or boldfaced type to highlight important terms. Four other aids are discussed below: formal definitions, synonyms, illustrations, and glossaries. In addition, suggestions are made for teaching students how to make educated guesses when one of the other comprehension aids is not provided.

Formal Definitions

Often, an author will define an important technical term in the sentence that introduces it.

Parasites are plants or animals which live upon another living organism without giving anything in return.
(Gerson, 1980, 56)

term	definition
<u>Parasites</u>	<u>Plants or animals which live upon other living organism</u>

Clue words can warn the reader that a definition is included in the sentence. These include "is," "means," "is referred to," "is called," and "is defined as." Locate the technical term and its definition

in the following examples (remember that a technical term may include one word or several).

Exercise 5

The nail bed is the portion of the skin in which the nail body rests. (Cumaglia, 1960, 78)

term	definition
------	------------

_____	_____
_____	_____

Sub-fibers. These polypeptide chains are called Keratin. (Powitt, 1978, 57)

term	definition
------	------------

_____	_____
_____	_____

Although when you are a cosmetologist you will be concerned about recognizing communicable diseases, you also will need to recognize the differences between congenital, chronic, and acute diseases. A congenital disease is a disorder that has existed from birth. (A person born with a heart condition has a congenital disease.) A chronic (KRON-ik) disease, such as emphysema, is a long-term or recurring disorder. A short-term condition, such as the common cold, is called an acute disease. (Dalton, 1979, 62)

term	definition
------	------------

1	_____	_____
2	_____	_____
3	_____	_____

2

Synonyms

As an alternative to a formal definition, cosmetology literature may clarify a technical term by the use of a synonym. The synonym may be enclosed in commas or parentheses directly following the term or set off by the word "or."

In permanent waving, hard keratin (hair) must be softened and yet the soft keratin (epidermis of the scalp) must be unaffected by the chemical solutions used on the hair. (Powitt, 1978, 16)

<u>term</u>	<u>synonym</u>
<u>hard keratin</u>	<u>hair</u>
<u>term</u>	<u>definition</u>
<u>soft keratin</u>	<u>epidermis of the scalp</u>

Exercise 6

Yellow or sallow skin can indicate jaundice, hepatitis, or malaria.

Palled or very pale skin is typical of malnutrition. (Powitt, 1978, 17)

<u>term</u>	<u>synonym</u>
1 _____	_____
2 _____	_____

The skin contains many small structures with openings (pores) leading to the surface of the skin. They are known as sweat (sudoriferous) glands. (Powitt, 1978, 29)

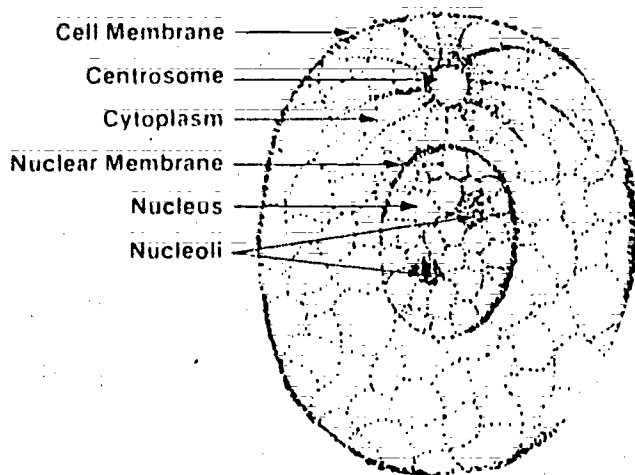
<u>term</u>	<u>synonym</u>
1 _____	_____
2 _____	_____

Illustrations

A frequent type of definition in a cosmetology text is an illustration. Unfortunately, students often skip over the illustrations when they are reading. The first task of an instructor is to impress on students the need to immediately study the designated figure whenever it is mentioned in the prose (Ex: "See Fig. 8-2"). In the following example those terms explained by an illustration are noted along with the page number of the prose and the diagram. Forcing students to physically note this information is a useful first step in teaching them to use diagrams as comprehension aids. Later they will apply the visual definition to the prose automatically:

STRUCTURE OF THE CELL

The protoplasm of the cell contains the following structures:



Nucleus (nu kle-us)---dense protoplasm found in the center, which plays an important part in the reproduction of the cell.

Cytoplasm (si to-plazm)---less dense protoplasm found outside of the nucleus and contains food materials necessary for the growth, reproduction and self-repair of the cell.

Centrosome (sen tro-som)---a small, round body in the cytoplasm, which also affects the reproduction of the cell.

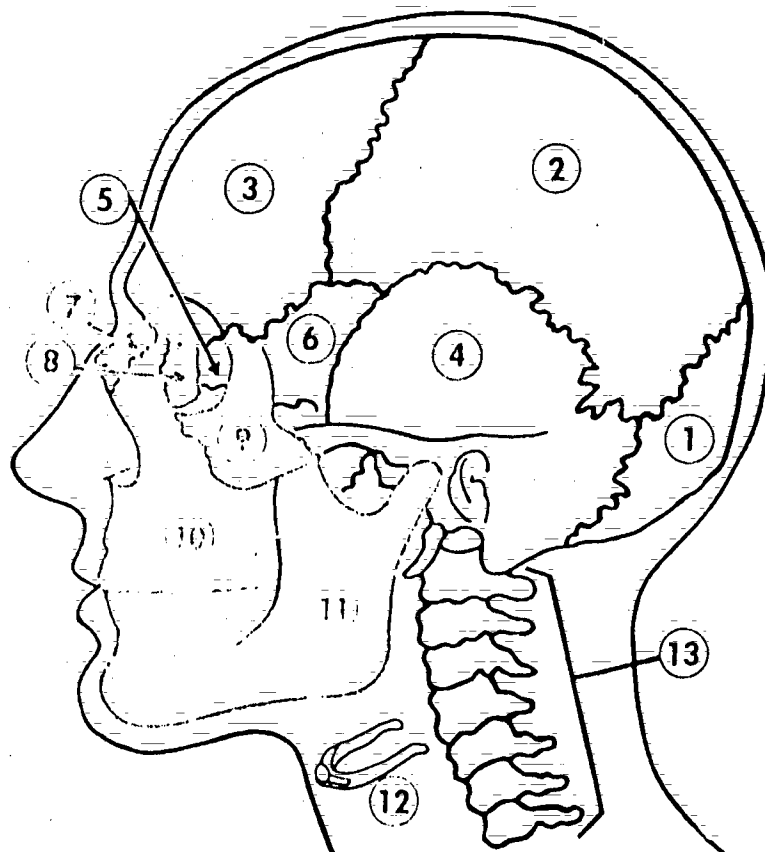
Cell membrane--encloses the protoplasm. It permits soluble substances to enter and leave the cell. (Gerson, 1980, 70)

Pg. # terms	Pg. # Ill.	Terms
70	70	Cell membrane, centrosome, cytoplasm, nuclear membrane, nucleus nucleoli

Exercise 7

The following bones are involved indirectly in connection with scalp and facial manipulations: (The bones are numbered to correspond with the bones shown on the illustration.)

1. Occipital (Ok-sip-i-tal) bone forms the lower back part of the cranium.
2. Two parietal (pah-ri-e-tal) bones form the sides and top (crown) of the cranium.



3. Frontal (frun'tal) bone forms the forehead.
4. Two temporal (tem'po-ral) bones form the sides of the head in the ear region (below the parietal bones). (The ethmoid and sphenoid bones are not affected by massage.)
5. Ethmoid (eth'moid) bones are light and spongy bones between the eyesockets and form part of the nasal cavities.
6. Sphenoid (sfe'noid) bone joins together all the bones of the cranium.
7. Nasal (na'sal) bones form the bridge of the nose.
8. Two lacrimal (lak'ri-mal) bones are small bones located at the front part of the inner wall of the eyesockets.
9. Two zygomatic (zi-go-mat'ik), or malar bones, form the prominence of the cheeks.

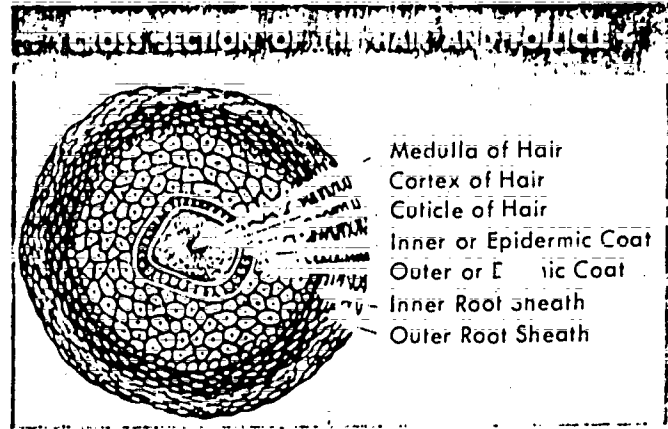
These unnumbered bones do not appear on illustration: Two turbinal (tur'bi-nal) bones are thin layers of spongy bone situated on either of the outer walls of the nasal depression. Vomer (vo'mer) is a single bone that forms part of the dividing wall of the nose. Two palatine (pal'ah-tin) bones form the floor and outer wall of the nose, roof of the mouth, and floor of the orbits.

10. Two maxillae (mak-sil'e) are the upper jawbones which join to form the whole upper jaw.
11. Mandible (man'di-bl) is the lower jawbone and is the largest and strongest bone of the face. It forms the lower jaw. (Barrett, 1979, 380-387).

Pg. # terms	Pg. # Ill.	Terms
386,387	386	

The structure of the hair is composed of cells arranged in three layers:

1. Cuticle (ku'ti-kl), the outside horny layer, is composed of transparent, overlapping, protective scale-like cells, pointing away from the scalp and towards the hair ends. Chemical solutions loosen these scales so that solutions can enter into the hair cortex.



2. Cortex (kor'teks), the middle or inner layer, which gives strength and elasticity to the hair, is made up of a fibrous substance formed by elongated cells. This layer contains the pigment which gives the hair its color.
3. Medulla (me-dul'ah), the innermost layer, is referred to as the pith or marrow of the hair shaft, and is composed of round cells. The medulla may be absent in fine and very fine hair. (Ibid, p. 372, 373)

Pg. # terms	Pg. # Ill.	Terms
372, 373	372	

Glossaries

Many current vocational texts include glossaries at the end of the chapter or book. The teacher's task is to make sure the students use this aid. In the initial weeks of a course students can be required to read the glossary the night before beginning a new chapter. Initially, as they read the chapter and encounter a new word defined in the glossary they can note it on a separate piece of paper. While the notation is not important in itself, the requirement of writing it will face them to actively use the glossary. This requirement and the assigned previewing can be relaxed later in the term.

Educated Guessing

Sometimes an author makes the meaning of the word clear, but doesn't actually define it. More frequently, a term is defined once early in the book, but will be used later without definition. Students may not remember the initial definition. Encourage them to skip a word they don't know, read the surrounding sentences and then make an educated guess as to its meaning. Students reading the following excerpt (Powitt, 1978, 103) might not understand the word "secretions." However, there are clues (underlined words and phrases) which suggest that a secretion is a liquid such as an oil.

Under the microscope each gland appears as a bunch of grapes. The cells inside the gland break open continuously, sending their contents (sebum) into a special canal or duct leading up the side of the hair follicle.

Because of this special canal alongside the hair, the secretions of sebum are able to be transferred continuously over the whole area of the skin. In addition, the oils are spread along to the tips of the hair.

Exercise 8

Look at the following three selections and then briefly discuss what clues in the paragraph would help someone guess the meaning or partial meaning of the term noted.

The function of the cuticle is to protect the more delicate cortex from injury. If the cuticle is damaged by excessive lightening, permanent wave solutions or harsh chemicals, the cortex is exposed to injury. (Powitt, 1978, 45)

Terms

Cuticle and cortex

Discussion

Second, maintaining quality from the time a product is formulated throughout normal consumer use is another function of the cosmetic scientist. A key role, for example, is the development of a preservation system which prevents contamination of the product even after it has been used. Cosmetic products have potent preservative systems to combat microbial contamination from the air as well as the user's hands or body.

A third responsibility of the cosmetic scientist is maintaining a constant interchange with the total scientific community to keep abreast of new developments as well as leading in the discovery of new scientific knowledge. (Cosmetic, Toiletry and Fragrance Assoc., 9)

Term

Discussion

Contamination

Test for Color and Effect

When making "The Preliminary Skin Test" (see Section 7) and using that same test mixture, make a preliminary test as follows:

1. Using the cotton-tipped applicator, saturate a small strand of the hair with that test mixture. Before an original application, apply to entire length of strand; leave on for 30 minutes; then shampoo and dry. Before a retouch application, apply only to new growth; leave on for 20 minutes, then apply to balance of strand and leave for additional 10 minutes; then shampoo and dry.
2. Examine the test strand carefully to be sure that you have selected the right color, and that the hair is in condition for the application without discoloration, damage or other unwanted result. (Roux)

Term

Discussion

Saturate

The rinses are first diluted in warm water and then poured on the hair; they are then rinsed out. (A.M.A., 1979, 3)

Term

Discussion

diluted

Exercise 9: Textbook Application

Select an introductory chapter from the vocational text you teach. Look for the vocabulary comprehension aids introduced above.

Formal Definitions

<u>Pg. #</u>	<u>Term</u>	<u>Clue Word</u>	<u>Definition</u>
1			
2			
3			
4			

Synonyms

Pg. #	Term	Definition
1		
2		
3		
4		

Illustrations

# Ill.	Terms defined by the illustration
1	
2	
3	
4	

Glossary

<u>Pg. #</u>	<u>Terms found in the glossary (use each term only once)</u>
1	
2	
3	
4	
5	
6	

Educated Guessing

<u>Pg. #</u>	<u>Term</u>	<u>Clues (words, types of words)</u>
1		
2		
3		

Teaching Students Vocabulary Skills

Vocabulary skills can be introduced in the first week or two of class. Every-other-day one skill can be explained and an example given. Three or four more examples can be given on a transparency, ditto, or the board while the class locates the term and definition in a discussion. Have students discuss the detective work that would need to be done and guess the meaning of words not more formally defined. As part of their regular homework assignment, have students practice these skills. Select five words that you know are explained by the skill taught that day (synonym, formal definition, etc.). Have students prepare a sheet similar to the one you completed in the preceding text application section (with the exception of "educated guessing").

The cloze technique can also be used to reinforce or check the basic vocabulary skills. Prepare a clozed selection from your text, omitting important technical terms that are explained by one of the techniques discussed. This can be used to determine whether students use these comprehension aids or know the vocabulary. It can also be used to demonstrate to them the usefulness of learning these skills.

SECTION 4
PARAGRAPH COMPREHENSION

SECTION 4

PARAGRAPH COMPREHENSION

A paragraph has three major components:

- 1) the subject (what is being talked about)
- 2) the main idea (the most important information about the subject)
- 3) the supportive information (facts or examples that make the information clearer)

Of these, the main idea is the most crucial, for the key points of a chapter or article are simply selected main ideas from component paragraphs.

Look at the following paragraph. What are the subject and the main idea?

The metabolic, reproductive and other living functions of the cell are regulated by the nucleus. The nuclear matter is protoplasm, differing somewhat chemically from that of the cytoplasm. The nucleus plays a major role in directing the functions of the cell. In addition, it is of vital importance in the process of cell division, the reproductive process wherein the genes pass along the exact characteristics of the parent cell. Since cells have a limited life and must be replaced continuously, this reproductive procedure is essential to the life and well-being of the body. (Powitt, 1978, 11)

All the sentences here relate to the nucleus, its definition and functions, therefore "nucleus" is the subject. In this instance the most important information in the paragraph has been condensed in the first sentence. That sentence supplies the main idea while the succeeding ones elaborate on each element of the idea, providing supportive information.

Paragraph Subject

The key to finding the subject of a paragraph is finding the one topic that everything else in the paragraph is related to. A paragraph usually discusses only one small aspect of a larger topic, therefore, the subject must not be too general. It must identify the specific topic being discussed. At the same time, it must not be too specific, substituting an example of the subject being discussed for the subject itself.

Read this next paragraph and look for its subject.

Shampooing is important in beauty shops because a good shampoo cleanses the scalp of oil, sweat, dirt, and scaliness; keeps the scalp in hygienic condition and the hair looking its best; prepares the hair for other treatments to follow; and builds both good will and good business. (Wall, 1975, 25)

- a) shampooing
- b) shampoo and hygiene
- c) importance of shampooing

Immediately choices "a" and "b" can be eliminated. The first is too general, many aspects of shampoo treatment are not covered-- steps in shampooing, different kinds of shampoo, etc. The second choice, on the other hand, is too specific, it is only one of many benefits cited. Choice "c", then, is correct.

Exercise 10

Find the subject in the following paragraphs.

In working on the back of the head, the main objective in styling is to make the patron's

- neck appear proportionate to her head and shoulders. Thus with a long thin neck the hair can be worn longer; soft curls should be brought over the ears, and the ridges should be kept horizontal; a chignon may be placed low. If the neck is short and broad, curls should be placed behind the ears and slightly lower on the neck; ridges of finger waving or pin curls should be swirled at an angle of 45° to make the head appear longer. (Wall, 1975, 52)

Subject _____

Another method of permanently coloring the hair is double-application hair coloring. Bleaching and toning are double-application methods of coloring because two different products are applied separately to the hair. First, the hair is bleached (decolorized), and then a toner is applied to achieve the desired color. Bleaching and toning will be discussed in chapter 16. (Dalton, 1979, 197)

Subject _____

Paragraph Main Idea

Often it is difficult to identify a paragraph's main idea. The following four guidelines can help in its location:

1. If the paragraph includes the definition of a term, that term might be part of the subject. The definition might be part of the main idea.
2. If there are examples, these may be illustrating all or part of the main idea.
3. If a key word or phrase is repeated, it might be part of the subject or main idea.
4. Highlighted words might be part of the subject or main idea.

Note that the work "might" is used in each instance. These guidelines can point toward possible main ideas they cannot automatically select the right one.

Exercise 11

Look at the following three paragraphs. First ask yourself what the paragraph is about (the subject). Then look for the main idea using the four guidelines. Note which guidelines (if any) are most helpful in each case.

Occupational disorders in cosmetology refer to abnormal conditions resulting from contact with chemicals or tints in the course of performing services in the beauty salon. Some individuals may develop allergies to ingredients in cosmetics, antiseptics, cold waving lotions and aniline derivative tints which may cause eruptive skin infections known as dermatitis venenata (ven-e-na'tah). It is important that cosmetologists employ protective measures, such as the use of rubber gloves or protective creams whenever possible. (Barrett, 1979, 366)

Guideline #	Subject	Main Idea

In summer, the position is reversed and there is often an abundance of warmth to be spread around the body. The blood vessels in the skin expand and more blood flows to the skin. The circulation of air over the skin picks up this extra heat that the body no longer requires and the body is cooled. We can assist this

process by wearing light clothing during hot weather. One has only to consider the uncomfortable feelings of heat in an over-crowded room, especially if the windows happen to be closed, to realize how much body heat is given off through the skin, by all of the people present. The skin shows this extra circulation of blood by appearing pink and flushed. (Powitt, 1978, 29)

Guideline #	Subject	Main Idea

A corrective hair treatment deals with the hair shaft, not the scalp. Dry and damaged hair can be greatly improved by reconditioning agents. Hair treatments are especially beneficial and extremely important when given approximately a week or ten days before, and a week or ten days after, a permanent wave, tint, lightener, toner or chemical hair straightener treatment. (Barrett, 1979, 56)

Guideline #	Subject	Main Idea

Paragraph Comprehension and Illustrations

Paragraph comprehension can be reinforced by the proper use of illustrations. Often illustrations in cosmetology literature demonstrate a process. Students should learn to "read" the process either by noting the arrows used in diagrams like the first one below, or by comparing sequential diagrams, as is demanded in the

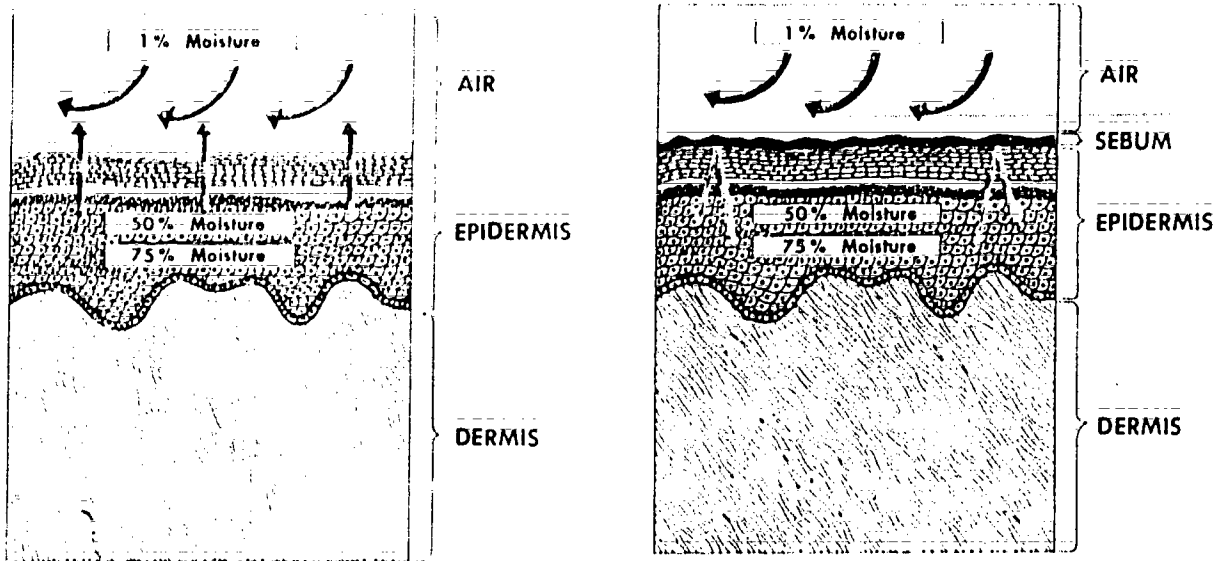
second illustration. In either case, the illustration and prose should be compared as the prose is being read. When students first practice "reading" illustrations some kind of active participation should be required. This could be noting the number of prose paragraphs related to the diagram or writing a one or two sentence summary of the diagram.

Exercise 12: Summarize The Example Below

Water Another problem to be considered is the effect of water on the skin. The skin, itself 50-75% moisture, is able to maintain this level only by the secretion of sebum which coats its surface. This layer of oil slows down the evaporation of the water in the skin and prevents excess moisture from penetrating into it. But if the natural oils are removed by any means whatsoever, especially from the hands, this protection is lost.

Let us examine the case where the hands are excessively exposed to cold, drying winds. As the oil barrier is lost, the skin cannot prevent its cells from becoming dry and scaly (chafed). If further exposed to drying winds, cracking and bleeding takes place. This is more frequently noticed in winter than in summer, because the cold usually restricts the flow of blood to the dermis and the evaporation of the skin moisture cannot be balanced by a greater flow of blood and lymph.

PROTECTIVE ACTION OF SEBUM



Summer increases the rate of sweating and this enables the skin to be kept naturally moist and prevents drying and chafing. On the other hand, if the skin is kept constantly in water, after the removal of oils, the skin soaks up some of the water and expands. This causes wrinkling and softening of the skin accompanied by discomfort. (Powitt, 1978, 24-25)

Summary Statement:

Exercise 13: Identify the Number of Paragraphs Related to the Illustration

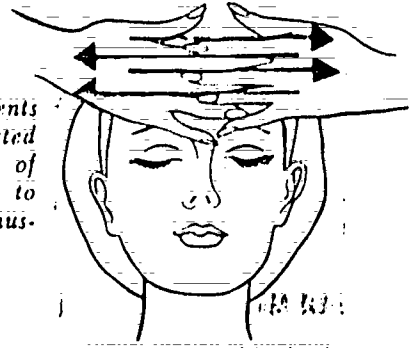
Effleurage (ef-loo-rahzh'). This is a light, continuous movement applied to the skin with the fingers and palms

in a slow and rhythmic manner. No pressure is employed. Over large surfaces, the palm is used, while over



Palmar stroking of face

Massage movements are usually directed toward the origin of muscles in order to avoid damage to muscular tissues.



Digital stroking of forehead

small surfaces, the cushions of the fingertips are employed. Effleurage is frequently applied to the forehead, face, scalp, back, shoulders, neck, chest, arms and hands for its soothing and relaxing effects. (Barrett, 1979, 302)

Number of paragraphs related to diagram:

Exercise 14: Textbook Application

Pick four paragraphs from your fifth week's reading assignment.

Identify the subject and main idea in each.

Page #	Col. #	Para. #	Subject	Main Idea

Pick a segment at least four paragraphs in length from your sixth week's reading assignment and note the subject and main idea of each important paragraph.

Page #	Col. #	Para. #	Subject	Main Idea

Pick two illustrations that clarify the meaning of a paragraph from the fifth, sixth, or seventh week's assignment. Note the page number of the diagram and write a brief summary statement about it.

Pg. #	Diagram	Summary Statement

Teaching Students to Understand the Paragraph

Understanding the paragraph is the most difficult reading skill the cosmetology instructor must teach. It is important to introduce the material slowly and incrementally as was done here. The fourth week of class can be devoted to the paragraph subject. Monday 5-10 minutes can be spent in a general introduction and discussion/practice locating subjects in simple sample paragraphs. Wednesday the three criteria can be applied to more sample paragraphs and students can look for the subject in specified paragraphs from the homework reading. Friday a few of the homework paragraphs can be discussed and one or two more complex samples given. Friday's homework can include 1-3 more paragraph assignments.

During week six, a similar procedure can be utilized to teach locating the main idea. Each day one of the three clues can be introduced and applied along with the more general directions of "what is the most important thing the author is saying in this paragraph." The paragraphs you identified in the text application can be assigned to the students with directions to find the subject and main idea. In the sixth week the class can be assigned the multiparagraph sections you identified, recording the subject and main idea just as you did. They can also practice integrating the reading of illustrations and prose.

SECTION 5
EFFECTIVE READING TECHNIQUE

Section 5

EFFECTIVE READING TECHNIQUE

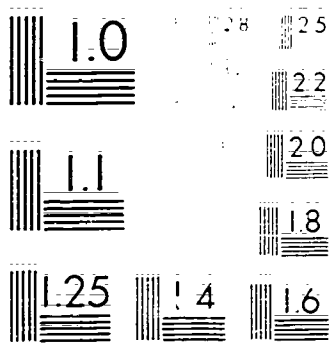
In all subjects, the time comes when we ask our students to study by themselves. In many instances, these students do not know how to study. This section contains a brief overview of a study technique originally devised by Francis Robinson (1970).

The SQ4R Method of Study

Many elementary, secondary, and college students have not learned how to study a textbook assignment. A typical procedure is for the student to do nothing more than open his book and read the assignment. The more conscientious may follow this initial reading by a second or even a third reading of the same fruitless type. Research has found a good method of helping the student read a given selection with better understanding and better recall. It is called the SQ4R method. It involves five basic steps: (1) Survey, (2) Question, (3) Read, (4) Recite, (5) Review. Some of the things to be done in each of the five steps are discussed under appropriate headings below.

Survey:

Look through the whole assignment. Read the readings if there are any; read the summary if there is one. Try to get the general idea of the content of the whole lesson. Later you can piece the details into the framework which you have in mind, and the entire lesson will mean more.



Resolution Test Chart

Question:

Think of the questions which are likely to be answered in the lesson. Often the headings can very easily be turned into questions. Use them! If any heading does not tell you plainly what question is to be answered in that section use this question: "What does the author expect me to learn about from studying this section?" If there are no paragraph headings, skim the section quickly for the main ideas.

Read:

Study the lesson to find the answers to the questions. Do not stop to read every word carefully, concentrate on finding the main point. You cannot remember all the facts you find, so you want to look for the important ones, of which there will be only one or two for each section. Don't pick up too many. Do not try to memorize the facts at this point; just sort out the ones you need as you go along.

Make study guides. Fold or cut a large sized notebook paper lengthwise down the middle. On the left list the topics discussed in the book. If there are paragraph headings in boldface type, use them; if not, list the main ideas found in the previous section. Leave space between topics. When you have finished reading a section and picking out the one or two facts to remember, list on the right the key words and the facts or facts you have decided are most important for each one. Do not do this until after you have read a section and thought about it. This is most important.

Recite:

Go back over the lesson immediately. Cover the right hand side of the paper and check the headings on the left. Ask yourself, "Do I remember what this section was about?" or "Can I answer this question?" If you find that you cannot you know that you must look up the key words, or even go back to the book if necessary, in order to restudy the particular part which you did not understand or have forgotten. Step 4 is very important. Giving yourself an immediate quiz on what you have just studied is the best possible way to prevent forgetting.

Practice until you can recite on the entire study guide without referring to the key words. Then practice some more. This extra practice is what really pays off.

Review:

Some time later, and always before an exam, go back to your headings and questions and quiz yourself. Reread only those parts which you have forgotten. If you have taken steps 1, 2, 3, and 4 faithfully, you will find that you do not have too much to restudy.

If students learn to change the headings within a chapter into questions and then read to answer those questions, much more will be obtained, than if they merely read and then answered questions at the end of the chapter. Indeed, what often takes place when we assign questions from the chapter ending is students read the questions and then copy only that information which answers the question without ever having read the chapter or designated pages. The process of formulating questions is a thinking exercise which turns students into the assignment. Reading, studying, in this way is a life-long skill that really should be taught. As a skill it may be more important than the content and concepts of the subject.

Occupational Literature Application

The occupational literature in data processing consists heavily of computer-generated user's guides. These generally include a detailed table of contents and a number of short, titled, topics per page. Seldom do users read the entire guide at one time. Rather, they use only those sections needed to solve

a particular problem. Efficient use of surveying techniques (1: surveying the table of contents; and 2: skimming subtitles) can facilitate this process.

Exercise 15: Textbook Application

Select a portion of the chapter you assign in the seventh or eighth week of class and practice the SQ4R method.

Teacher SQ4R

Students have already learned how to locate the subject and main idea of a paragraph and how to distinguish these from information that is merely supportive. In the final "paragraph" assignments they practiced recording information in much the same manner as they will for SQ4R. This should facilitate SQ4R instruction. On Monday explain surveying and have the students practice in class on the chapter currently assigned. Wednesday have them prepare questions from some of the headings, either individually or as a group. They can continue this exercise for homework. Friday the read and record steps can be presented and compared with the subject/main idea work they have already done. Reading and recording can be practiced on the homework assignment and discussed the following Monday.

Teacher-made notes on the reading can be shown on a transparency, on the board, or a ditto to allow students to check their own notes. Wednesday the recite and review steps are introduced with students pairing-up to quiz each other from the left-hand subject

column. Beginning Wednesday night, they should be expected to utilize the SQ4R method on their assignments. The next two Fridays, and sporadically thereafter, students can quiz each other on their notes while the instructor walks around the room noting whether each student has followed the correct procedure. At the beginning of the next chapter, students should again be required to perform the survey step in class and suggest some guide questions derived from the chapter headings. Review of the other steps should take place as needed.

SECTION 6
RECOGNIZING AND RECORDING COMPLEX INFORMATION

Section 6

Recognizing and Recording Complex Information

Cosmetology literature often highlights three important logical relationships: classification, comparison, and causality. Classification, in its simplest form is simply listing. Comparison and causality discussion are also generally straightforward. The relationships may be compared or the causes of split-ends present. These three relationships are easiest to see and remember if the notes taken about them have a visual impact. Each of these comparison techniques is given below.

Classification

The use of classification can be signaled by a colon, a number or letters, or words such as "these include." At other times classification is simply introduced by a statement: "here are a number of blow-drying techniques." Since outlining is the easiest way to record classification, information may be originally presented in this form. If not, students can construct their own outline.

Tissues are composed of groups of cells of the same kind. Each tissue has a specific function and can be recognized by its characteristic appearance. Body tissues are classified as follows:

1. Connective tissue serves to support, protect and bind together other tissues of the body. Bone, cartilage, ligament, tendon, and fat tissues are examples of connective tissue.
2. Muscular tissue contracts and moves in various parts of the body.

3. Nerve tissue carries messages to and from the brain and controls and coordinates all body functions.
4. Epithelial (ep-i-the-le-a!l) tissue is a protective covering on body surfaces, such as the skin, mucous membranes, linings of the heart, digestive and respiratory organs and glands.
5. Lique tissue carries food, waste products and hormones by means of the blood and lymph. (Gerson, 1980, 77)

An outline could easily be constructed from the five points listed above. The new excerpt is outlined for you.

The Body Defenses

The body is constantly defending itself against invasion by disease. Its defenses are called first-, second-, and third-line defenses.

First-Line Defenses

Bacteria can enter the body through any orifice, such as the mouth, nose, etc. Bacteria are taken into the body in food and liquids, and can enter by way of injuries that break, cut or puncture the skin.

A healthy skin is one of the body's most important defenses against disease. It acts as a barrier by resisting the penetration of harmful bacteria.

The nose has mucus and fine hairs that serve as protection against bacteria. When a person sneezes or coughs the body is reacting to protect itself against bacteria. Other barriers are created by the mucus membranes within the mouth, the gastric juices in the stomach, and the organisms within the intestines and other areas of the body.

Tears in the eyes also serve to flush out harmful bacteria and foreign objects.

Second-Line Defenses

The body also defends itself from harmful bacteria by producing inflammation. Redness and swelling reveal an increase in temperature and metabolic activity. The inflamed area will be sensitive to the touch. The white corpuscles go into action to destroy harmful microorganisms in the bloodstream and tissues so that healing can take place.

Third-Line Defenses

The body can produce substances which can inhibit or destroy harmful bacteria. These protective substances are the antibodies. (Gerson, 1980, 57)

The Body Defenses

- I. First-line Defenses
 - A. Healthy skin
 - B. Nose, mouth, and stomach
 1. nose: mucus, hair
 2. mouth: mucus
 3. stomach: gastric juices, intestinal organisms
 - C. Tears
- II. Second-Line Defenses - Inflammation, white corpuscles destroy harmful microorganisms
- III. Third-line Defenses - Antibodies

Exercise 16

On a separate piece of paper, construct an outline from this selection from The Professional Cosmetologist by John Dalton (1979, 61-62).

Shampoos can be classified according to their special uses. These categories include: nonstripping, medicated, all-purpose, conditioning, herbal, acid-balanced, power-dry, and liquid-dry shampoos.

Nonstripping shampoos are made to cleanse without removing permanent hair coloring or toning colors used on prelightened hair.

Medicated shampoos contain ingredients for treating scalp and hair problems or disorders. Some are available from your beauty supply dealer; others are obtained only by prescription from the client's doctor.

All-purpose shampoos are available from most shampoo manufacturers. They do not strip color, and they have a lower alkaline content than some specialty products. Some even include anti-fungus and antidandruff agents, besides ingredients that are very mild for hands. If this type of product meets the needs of the client, it can save both clients and salons many dollars in avoiding product duplication.

Conditioning shampoos have small amounts of animal, vegetable, or mineral additives that improve the tensile strength and porosity of hair. Some of these additives are proteins, which may go into the cortex or attach themselves to the cuticle of the hair shaft. Proteins in the better conditioning shampoos usually remain in the hair for more than two or three salon visits.

Herbal shampoos contain natural ingredients. Their appeal is based on the "back-to-nature" trend. Although these natural ingredients may be helpful, the products often are expensive. Their value should be judged carefully and compared with less expensive products.

Acid-balanced shampoos, as already mentioned, have about the same pH (4.5-5.5) as hair, so they do not change the hair's natural pH.

Power-dry shampoos are designed for clients who cannot wet their hair. They are particularly helpful to bedridden persons. They are granules that absorb soil and oil as they are brushed through the scalp and hair.

Liquid-dry shampoos also are used on clients who cannot wet their hair in a regular shampooing service. The solution is applied on cotton to small strands of hair. It loosens soil and residue that can be removed by towel-blotting immediately after the shampoo has been applied. The remaining solution evaporates. Liquid-dry shampoos are used mainly on hand-tied hairpieces such as wigs and wiglets, because ordinary shampoos deteriorate the wetting (base material to which the hair is sewn) of hairpieces.

Comparison

While classification is commonly used cosmetology literature, it is seldom used alone. Once the elements of a topic have been classified into sub-topics, these sub-topics are usually compared.

ANTISEPTICS USED IN SALONS.

<i>Name</i>	<i>Form</i>	<i>Strength</i>	<i>Uses</i>
Boric Acid	White crystals	2.5% solution	Cleanse the eyes.
Tincture of Iodine	Liquid	2% solution	Cleanse cuts and wounds.
Hydrogen Peroxide	Liquid	3% solution	Cleanse skin and minor cuts.
Ethyl or Grain Alcohol	Liquid	60% solution	Cleanse hands, skin and minute cuts. Not to be used if irritation is present.
Formalin	Liquid	5% solution	Cleanse hands, cabinet, etc.
Chloramine-T (Chloramine Chloro-zel)	White crystals	1% solution	Cleanse skin and hands and for general use.
Sodium Hypochlorite (Jazelle Water Zonite)	White crystals	1% solution	Rinse the hands.

(Gerson: 1980: 64)

Charts with the topics to be compared along one axis and the features of comparison along the other are often provided. Again, if they are not provided, students may construct their own. When constructing a chart, the complete comparison section should be read before beginning.

Temporary Methods of Hair Removal

Shaving is usually recommended when the annoying hairs cover a large area, such as in the armpits and on the arms and legs. A shaving cream is applied before shaving off the hair.

An electric razor may also be used. The application of a pre-shaving lotion will help to reduce irritation.

Tweezing is commonly used for shaping the eyebrows and for removing undesirable hairs around the nose and chin. (The procedure for tweezing the eyebrows will be found in the chapter on Facial Treatments.)

To lessen the visibility of superfluous hair, you can lighten it by applying an oil bleach mixed with two parts of peroxide . . .

Depilatories also belong to the group of temporary methods for the removal of superfluous hair. There are physical (wax) and chemical types of depilatories.

The wax type of depilatory may be applied over such parts of the body as the cheeks, chin, upper lip, nape area, arms and legs . . .

The chemical depilatories, available as a cream, paste, or powder mixed with water into a paste, are generally used to remove hair from legs . . . (Barrett, 1979, 346-347)

Temporary Methods of Hair Removal

Method	Area Used On
Shaving	Large area (legs, armpits, arms)
Tweezing	Face (eyebrows, mouth, chin)
Bleach	Anywhere
Wax depilatories	Cheeks, chin, upper lip, nape, arms, legs
Chemical depilatories	Legs

Exercise 17

On a separate piece of paper, construct a comparison chart from the following selection.

Floral

This term applies to one flower such as a rose, a lilac, lily-of-the-valley, jasmine or magnolia.

Floral Bouquet

This fragrance may be light or heavy and is a medley of fragrances so that no one flower stands out.

Oriental

These fragrances are often blends of spices and give an impression of intense. This does not mean that Oriental fragrances are overpowering, but they should be tried on in order to get the full benefit of their unique blends.

Modern Blends

This fragrance combines substances that enhance one another so that the fragrance may not be identified as any one substance.

Spicy Blends

Cinnamon, cloves, vanilla, ginger and other spices are used to create a spicy bouquet of fragrance.

Forest Or Woodsy Blends

Sandlewood, rosewood and cedar are some herbs and plants that are used to create distinctive fragrances. Like all other fragrances they must be tried on to be fully appreciated.

Fruity Blend

These fragrances are based on the fresh smell of fruit such as peaches, limes, and lemons. Some of the popular fragrances for men combine the scent of herbs, spices and citrus.

Both men and women have different emotional responses to fragrances and it is helpful to try on a fragrance before purchasing it. Perfume departments encourage sampling of fragrances and salespersons are usually trained to help the customer select a fragrance that will be pleasing.

Fragrance should be tried on the skin and the alcohol allowed to evaporate before you determine the appeal of the fragrance. (Gerson, 1980, 373)

Cause and Effect

Cosmetology literature often seeks to teach students to diagnose and correct common beauty problems. Such discussions are generally written in a cause and effect format. Again, a chart facilitates note-taking. In this case, causes are listed in one column opposite possible effects. The order of the columns is unimportant and columns may include subjects other than "cause" and "effect" (ex: "problem, symptoms, treatment, effect").

Skin Health

Habits That May Be Harmful to The Skin

Studies have shown that excessive use of tobacco, alcohol, or drugs can contribute to premature aging of the skin. Nicotine in tobacco affects the blood vessels and slows circulation. Alcohol dilates the blood vessels,

but light intake of alcoholic beverages, especially wine, may not be harmful to the skin. It is the heavy, regular intake of alcohol that may cause blood vessels to dilate until tiny vessels burst in the white of the eye-ball and beneath the skin. Excessive alcohol intake can cause the eyes to become puffy and can contribute to dehydrated, sagging skin.

Medication That May Affect The Skin

Allergies may be caused by substances other than food. Some people have a reaction to cosmetics, grooming products (such as hair spray, mouthwash), and various medications.

Anxiety, stress, emotional problems, hypertension and nervousness are often the underlying causes of some types of skin reactions. Drugs given to alleviate these conditions may have side effects. Reddish eruptions may appear on the skin when a person has taken enough of a particular medication to become sensitized. Hives and rashes may be produced in some persons by the following medications: aspirin, penicillin, birth control pills, codeine, diet pills, barbituates and laxatives.

There are many other drugs and preparations that may cause skin reactions. (Gerson, 1980, 179)

Skin Health

Cause of Problem	Physical Response	Effect
Tobacco	nicotine slows circulation	premature aging
Alcohol (heavy use)	dilates blood vessels may cause tiny vessels in skin to burst	premature aging puffy eyes; dehydrated sagging skin
Cosmetics	allergies for some people	various reactions
Emotional, nervous problems	various reactions	various reactions
Drugs (aspirin, penicillin, birth control, codeine, diet, laxatives, barbituates)	allergic response for some people	(hives) hives and rashes

Exercise 18

Construct a cause and effect chart based on the following excerpt from The Professional Cosmetologist (Dalton, 1979, 336-337)

Irregularities and Diseases of the Nail

Onychophagy (on-ee-KOF-aj-ee) is the technical term for nail biting. The condition involves slightly deformed nail shapes, with no inflammation (redness) or other abnormal signs.

Cause It is a nervous habit of many individuals.

Prognosis The condition will subside if the person stops biting the nails. If the habit is continued, the individual risks getting a disease from bacteria found on the nails or infection of the cuticle from mouth bacteria.

Treatment Having regular manicures helps stop biting because nail polish is unpleasant to taste. Other distasteful chemicals may be applied to discourage it, but willpower is the only effective solution to the problem.

Onchatrophia (on-i-kat-ROH-fi-ah), atrophy of the nails, is characterized by the eating away of the nail plate. The nail loses sheen; the plate becomes smaller and may separate from the nail bed.

Cause Injury to the nail matrix or internal disease can result in onchatrophia. Also called onychia.

Prognosis Nail regeneration depends on the extent of the injury to the matrix or the illness of the client.

Treatment Use only a fine emery board. Do not use a metal pusher or a file during the manicure service. Advise the client to avoid highly alkaline soap or detergents.

Hangnails involve small skin tears or nail splits. The skin can bleed and be painfully raw. Also called agnails.

Cause The skin tears in the cuticle area result from dryness or from injury, sometimes caused by improper manicuring techniques.

Prognosis If only a very small area is affected, the skin rebuilds quickly. Larger areas require more treatment and time for correction.

Treatment Soaking in an antiseptic solution and application of antiseptics are in order for small areas. A large area of skin should be treated only by a doctor since surgery may be required. If caution is not exercised, bacterial infection may result.

Leukonychia (loo-koh-NIK-i-ah) is characterized by white spots on the nail plates on fingers or toes.

Cause Heredity or minor injury may cause leukonychia. One theory suggests that the white spots are tiny air bubbles caused by incompletely keratinized cells.

Prognosis Spots may disappear when the nail grows out.

Treatment None.

Onychorrhexis (on-ee-koh-REX-iss) is a split, brittle nail condition. It includes longitudinal splits parallel to each other on one or more fingernails. No inflammation is present around or under the nail.

Cause The condition may result from heredity and, in some cases, from use of permanent-type polishes or strong solvents for removing nail polishes. Injury to the nail may also cause splitting.

Prognosis A 3-month treatment will usually improve the condition of the nails.

Treatment Advise the client to see a doctor to make sure that disease is not present. Drinking an envelope of gelatin mixed with fruit juice each day may help improve the nails. Hot oil manicures may also help.

Onychauxis (on-ee-KAWK-siss), hypertrophy, is a thickening of the nail plate. It is an overgrowth in the thickness or the depth of the nail.

Cause It may result from injury and internal disorders, or from minor nail injury.

Prognosis The client should be advised to see a doctor for prognosis.

Treatment Advise the client to see a doctor. If infection is not present, a manicurist may buff nails with pumice powder.

Exercise 19: Textbook Application

Select 3 paragraphs or sections from the text assignments for weeks nine, ten or eleven that include each of the logical relationships discussed above and complete a note chart on them.

<u>Classification:</u>	<u>Pg. #</u>	<u>Topic</u>
	1.	
	2.	
	3.	
<u>Contrast:</u>		
	1.	
	2.	
	3.	
<u>Cause and Effect:</u>		
	1.	
	2.	
	3.	

Teaching Students to Recognize and Record Complex Information

Chart notetaking as demonstrated here can be introduced anytime after week six, whenever it is appropriate for your text. The three types of charts need not be presented at the same time. For convenience sake, it is assumed here that all will be introduced during weeks nine, ten, or eleven. Each form should be presented on a separate day. If your text already includes charts or outlines of these types, the appropriate one should be presented first each day followed by one or two sample paragraphs or sections from which the students can construct charts as a class. Related homework assignments should be given as soon as the appropriate text selections are covered.

REFERENCE NOTES

1. Thornton, L.J. and Lee, T. Developing and Delivering Reading Intervention Strategies for Pennsylvania Vocational Teachers of Special Needs Students. Final Report. (In progress). Six curriculum guides for specific occupational specialties are in varying stages of completion.
2. Ibid. Support research demonstrates deceptive nature of mean as measure of central tendency in occupational curricular literature readability research.
3. Thornton, L.J. Overcoming Disadvantage By Reading Deficiency: The Cloze Teaching Technique. Journal of Studies in Technical Careers (Publication Pending). The material included herein was adapted from the above article and includes substantial direct quotation per copyright agreement provisions with the publisher.

REFERENCES

- Frederick, D. The Van Dean Manual. Bronx, New York: Milady Publishing Corporation, 1979.
- Horn, R. A First Language: The Early Years. Cambridge, Massachusetts: The Harvard University Press, 1973. In Gibson and Levin, The Psychology of Reading. Cambridge, Mass.: The MIT Press, 1979.
- Cimaglia, A. The Art and Science of Manicuring. Bronx, New York: Milady Publishing Corporation, 1960.
- Cosmetic, Toiletry, and Fragrance Association. Introducing: . . . The Cosmetic, Toiletry and Fragrance Association, Washington, D.C. (No Date).
- Dalton, J.W. The Professional Cosmetologist (Second Edition). St. Paul, Minnesota: West Publishing Co., 1979.
- Flesh, Rudolph. The Art of Readable Writing. New York: Harper and Brothers, 1949.
- Fry, Edgar S. "A Readability Formula That Saves Time." Journal of Reading, 11 (April, 1968), pp. 513-16, 675-78.
- Gerson, J. Standard Textbook For Professional Estheticians. Bronx, New York: Milady Publishing Corporation, 1979.
- Gibson, Eleanor J. and Levin, Harry. The Psychology of Reading. Cambridge, Massachusetts: The MIT Press, 1979.
- Muncrief, M.C. and Bennett, J.S. (eds.) Instructional Materials For Occupational Education. Ithaca: Cornell Institute For Research and Development in Occupational Education, 1975.
- Powitt, A.H. Hair Structure and Chemistry Simplified. Bronx, New York: Milady Publishing Corporation, 1977.
- Product Information Insert. Wella Corporation, Englewood, New Jersey, 1975.
- Robinson, F. Effective Study 4th ed. New York: Harper and Row, 1970.
- Roux Laboratories. Roux-'tween time. Jacksonville, Florida, 1972.

- Smith, A.D.W. Generic Skills for Occupational Training. Prince Albert, Saskatchewan: Training and Research Development Station, 1973.
- Smith, A.D.W. Reading Skills - What Reading Skills? New Horizons in Reading. Newark, Delaware: International Reading Association, 1974.
- Taylor, W.L. "Cloze Procedure: A New Tool for Measuring Readability." Journalism Quarterly, 30, Fall, 1953.
- Thornton, L.J. Review and Synthesis of Reading in Post-Secondary Occupational Education (Monograph). University Park: Division of Occupational and Vocational Studies, The Pennsylvania State University, 1980.
- Thornton, L.J. Carpentry Literature: Readability vs Reading Ability. Utica, NY: State University of New York College of Technology, 1977.
- Thornton, L.J. "Relationship of Readability of Carpentry Literature to the Reading Abilities of Secondary Carpentry Students." Occupational Education Forum (1979): 35-50.
- Thornton, L.J.; Waters, L.B.; and Lee, T. Vocational Reading Series: Carpentry, Cosmetology, Data Processing, Medical Assisting, Radio & T.V. University Park: Division of Occupational and Vocational Studies, The Pennsylvania State University, 1980.
- Wall, F. Aid To State Board Examinations in Beauty Culture. New York: Keystone, 1975.
- Wircenski, J.L.; McPherson, M.; and Feng, D. Employability Skills Curriculum Guide for Special Needs Learners. University Park: Division of Occupational and Vocational Studies, The Pennsylvania State University, 1980.