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**Readability and Interest of Health Occupations Textbooks for
Special Population Learners**

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Abstract: The purpose of the study was to evaluate 17 representative health occupations textbooks in terms of reading difficulty, writing style, and interest level for special populations learners. The objective was to identify texts, using six different readability formulas, that were significantly more difficult, thus providing additional obstacles to special populations in their preparation for health occupations careers. Likewise, the relatively easier texts were identified for consideration in text evaluation and selection procedures. Additionally, representative text samples were analyzed with measures of writing style and human interest in order to consider a wider range of selection attributes. Results found that all readability formulas were highly correlated and were effective in discriminating between textbooks of relative ease or difficulty. Writing

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style and human interest were not strong discriminating factors in identifying accessible texts for special population students. The discussion of these factors includes recommended strategies for implementing textbook evacuation in terms of microcomputer analysis and individual student reading needs for students enrolled in health occupation programs.

Passage of the Carl D. Perkins Vocational and Technology Education Act of 1990 brought significant changes in monetary and programmatic issues related to vocational education programs. These changes have created a broader audience for vocational education both at the high school and technical school levels. This broader special populations audience includes both disadvantaged students as well as those defined as having a variety of disabilities.

As a result of the inclusion of more students identified as belonging to special populations, health occupations education personnel must take an active role in revising and updating their programs in ways that reflect their expanded knowledge of effective practices for teaching special populations students. The inclusion of special populations learners in health occupations preparation programs will afford, with proper training, a supply of health care professionals for the ever-growing service sector.

Health occupations programs can offer students multiple curricular exit points that prepare them for employment in high demand entry-level positions, such as nursing assistants, upon graduation (Flanagan, 1984 Goldwair, 1981; Nunley, 1981; Barrington, 1982). Programs that focus on entry-level skills for occupations that require two years

or less of minimum preparation can offer realistic goals for special populations students who wish to be employed in a health occupations-related job. It is vital that students be able to retain and transfer classroom material to the job setting. Special populations students frequently resist reading activities, therefore, required reading activities should be meaningful, relevant to health occupations job-related skills, and not overwhelming in length. The purpose of this study was to determine the reading and interest levels of representative textbooks used in secondary and postsecondary health occupation programs in order to give instructors a perspective on the appropriateness of specific texts for at-risk learners.

Review of Literature

Employability Reading Skills

Developing a well-prepared workforce in terms of job skills is highly dependent upon the basic skills students bring to the vocational education setting. Although many vocational education programs make extensive use of on-the-job training components, textbooks remain an important source of information. The transmittal of technical information through textbook readings presents a substantial obstacle to the accommodation of the special populations learner. Often this problem is specific to campus-based programs where reading demands in terms of tasks and difficulty are much higher than in the community-based work environment (Chang, 1983; Rader & Metha, 1980). Many occupational areas in vocational education have relatively low on-the-job reading demands with high frequency reading tasks involving work orders and safety and medical warnings with very rare usage of textbook catalogues, contracts

and letters (Rader & Metha, 1980). Many vocational students are required to “read to learn” from textbooks while employees are often required to “read to do” with a greater variety of reading materials (Chang, 1982, p. 118). Special populations learners are not nonreaders. They have some reading ability although, it may be significantly below the average of their peers. Learning style deficits in visual learning modalities penalize secondary special populations learners in classes with high textbook dependency. Many, if not most, of these students have the cognitive capacity to understand the vocational concepts being addressed, despite their inability to process the written word efficiently.

The selection of a textbook is a critical decision made by the vocational educator. Content coverage must logically be a primary consideration, followed by other factors such as cost, interest, and perceived reading difficulty (Gillen, 1973; Nelson, 1978). The employability of students with learning difficulties may be increased if health occupations educators utilize textbook selection for the enhancement of classroom instruction.

In promoting appropriate textbook usage for special populations learners in the vocational education setting several other factors must be analyzed. They include the relative difficulty of the text, the number and quality of graphics, the typeface format, the structure of the text including highlighting and margin summaries, and the availability of study aids including glossaries, outlines, summaries of key points, and study questions (New York State Education Department, 1982). Giordano (1985) also suggested examination of vocabulary, syntax, density of information, and format (headings, index, highlighting, etc.).

Readability refers to an index of the ease of comprehension of the reading material (Drew, Mikulecky, & Pershing, 1988). Readability analysis procedures have been around for more than forty years (Dale & Chall, 1948; Flesch, 1951). These procedures enable the professional educator to assess the text in terms of vocabulary, sentence length, writing style, and interest level. Readability analyses have been conducted several times in vocational education settings due to the simplicity of their use and the scientific approach for describing reading difficulty (Chang, 1983; Lenti, Perosino, & Tomasello, 1981; Nemko & Dutton, 1983; Thornton, 1983; Welch & McCracken, 1983; Zurbrick, 1985). However, considerable discussion has surrounded the viability of their use (Dunn, 1982).

Numerous readability procedures are available (Klare, 1974-'75) and each has its own advantages and disadvantages as well as task focus (Allen, 1985). Although criticism of readability formulas has focused on the restrictive variables used as the basis of calculations (Maddux & Candler, 1987) the predictive validity of such formulas in terms of reading comprehension has been substantiated (Guthrie, 1972).

Value of Readability

Despite the controversy surrounding readability versus learnability, readability remains a potentially useful tool in selecting the relatively simpler textbook in terms of ease of reading. Previous reviews have examined textbooks in the vocational education areas of plumbing, industrial arts, vocational agriculture and health occupations (Chang, 1983; Lenti et al., 1981; Nemko & Dutton, 1983; Thornton, 1983; Welch & McCracken, 1983; Zurbrick, 1985).

Nemko and Dutton (1983) provided a curriculum guide for health occupation educators working with disadvantaged students. Their work represents a comprehensive attempt to evaluate all **types** of resources in the areas of basic skills, **consumer** and career education, and health occupations. Fry readability scores are available for all materials **identified** as well as comments regarding material format, intended use, and features for the target population. Other curriculum guides have been developed for special populations learners in health occupations (Missouri University, 1988; **Simpson, 1981a, 1981b, 1981c, 1981d**). These provide for the development of entry level skills in areas such as **radiologic** technology and nurses' aides, but do not **specifically** deal with the **readability** of recommended materials.

The efforts to utilize readability analysis in vocational settings have attempted to match closely student reading **ability** with reading material based on a precise measure of reading **difficulty** provided by one, or less frequently, two or more readability measures. This accuracy of matching is not possible because the formulas vary in the **reading** components measured in contrast with differing factors from **reading** tests given to students. (**Dunn, 1982; Fuchs, Fuchs, & Deno, 1983**).

Often, teachers underestimate the reading **difficulty** of materials as indicated by readability formulas (**Welch & McCracken, 1983**). These same authors indicated that teachers in vocational agriculture never assessed a textbook as too elementary but up to 30% of teachers cited reading material as ranging from slightly to greatly too difficult. Certainly when technical concepts are adequately covered, easier to read text does not appear to impede the comprehension of a higher reading student, while it may make the

information more accessible to a special populations learner. However, the objective of text analysis for special populations vocational learners is not to provide a reliable match of reading level between text and student, but is to identify the lowest reading level available among texts otherwise suitable in content. This task can be accomplished if all text sources are measured with the same readability formula and if measures are seen as relative rather than specific indices of difficulty (Drew, et al., 1988; New York State Education Department, 1982).

A reliance on published readability ratings provided by commercial publishers is often a source of frustration since these scores are derived from single, often uncited, formulas without the provision of comparative information (Northwest Regional Educational Laboratory, 1989). Such information is probably useless and sometimes misleading due to the high amount of vocational content-specific vocabulary. For comparative purposes, a much broader analysis of available texts is needed to provide health occupation educators and their special education colleagues with reading ease information.

Purpose

The purpose of the recent study was to examine the readability, interest level, and writing style coverage of representative textbooks in health occupations education intended for use in the secondary and postsecondary schools. The first step in providing purposeful textbook selection and possible modification was to examine already existing texts in terms of reading ease. Previous reviews have utilized only readability formulas including the Dale-Chall Readability (1948), the Fry (1968) "rule of thumb" (Martin,

1981), FORCAST (Caylor, Sticht, Fox, & Ford, 1973), Cloze (Taylor, 1953), and the Flesch (1.951) formulas to determine reading difficulty. In order to attain relative rankings of vocational education textbooks, this study utilized a variety of commonly available formulas which provided comparisons for textbook evaluation. The formulas used were: Flesch grade level (Flesch, 1948), Flesch reading ease (Flesch, 1974), Kincaid-Flesch (Kincaid & McDaniel, 1974), Dale-Chall (Dale & Chall, 1948), Gunning-Fog (Gunning 1968), Raygor (Bennett & Raygor, 1965) and Fry (1968). The readability formulas were supplemented with the use of additional measures of human interest, that is, the emotional appeal and interest of a text, and formal writing style (the number of passive sentences) to expand the examination of elements of potential reading difficulty to students with special needs.

Methods and Results

Textbooks

Seventeen books were evaluated in this study. The most widely used books were identified by using the criterion of state adoption for high school use. The state education departments of twenty states (AK, AR, AZ, CA, CT, GA, HI, IL, KS, KY, MA, ME, MS, MT, ND, NM, NY, OH, SC, VA) from all regions of the United States were contacted by telephone to obtain information regarding state approved texts in vocational education. Of these twenty states, only six (AR, GA, KY, MS, SC, TX) had such lists available. Local adoption of texts was the practice in the remaining states

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A master list was made of all 25 texts listed and a prioritized compilation was made of those texts used by the highest number of states. Only two texts were listed by more than one state: Diversified Health Occupations (Simmers, 1988) by three states (AR, GA & SC) and Understanding Human Behavior (Milliken, 1987) by four states (AR, GA, KY & SC). A search was made for all texts on the master list to obtain the current edition. The search encompassed a large research university library and vocational curriculum laboratory, private collections of vocational education faculty and professional colleagues, high schools in five school districts in North Georgia, commercial publishers, and the bookstore and library of a postsecondary technical institute. Of the original list, 12 were obtained. Added to this list were five texts received from publishers having 1991 or 1992 publication dates that were too recent to have appeared on the text lists but whose subject matter is taught at the high school and/or postsecondary technical level. The books utilized for analysis in the study are marked by an asterisk in the references section.

Analysis Procedure

Two computerized programs were used to obtain readability scores on the textbooks. The first was School Utilities V. 2 Version 1.1 (Minnesota Educational Computing Consortium, 1982). This program provides analysis of reading passages with up to seven formulas including the Spache (1953), Fry (1968), Raygor (Bennett & Raygor, 1965), Gunning-Fog (Gunning, 1968), Flesch (1948), Dale-Chall (1948) and Flesch Ease (1974). The Spache formula was attempted on each sample but was not appropriate since it can assess passages only up to a fourth grade level. A second

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computer program, Microsoft Word 5.0, (Microsoft Corporation, 1991-1992a) was used to obtain a writing style analysis based on percentage of passive questions, a Flesch reading ease, Flesch, Kincaid-Flesch, and Gunning-Fog scores by means of a grammar checking program. Lastly a calculation of Flesch human interest index (Flesch, 1974) was made of all samples selected for readability analysis. Further clarification regarding the computation formulas is provided by Klare (1974-75). It is important to remember that the scores correspond to the acquired skill level of the reader not the present grade placement. In other words, a readability score of nine represents reading skills of an average person who has completed the ninth grade, rather than one who is only now placed in that grade.

Three passages of 100 words or more, ending with a complete sentence, were selected from the first chapter (around page 12), the final chapter (three pages from end), and the approximate middle page of the book (last text page divided by two) as recommended by Rush (1985). Only explanatory text was included in the sample. The same samples were re-entered in the second computer program for data analysis purposes.

All formulas used grade level equivalences, with the exception of the Flesch reading ease. In the Flesch reading ease formula, the higher scores indicate easier reading difficulty. Flesch and Fry grade levels are indices based on the average number of words per sentence and the average number of syllables per 100 words. Standard adult usage averages approximately 17 words per sentence and 147 syllables per 100 words (Microsoft Corporation, 1991-92b). The Flesch-Kincaid assigns a grade level

Anderson and Jones: Readability and Interest of Textbooks for Special Needs Learners based on the same factors. A Flesch-Kincaid score of 7-8 is similar to a Flesch ease score of 70-80, the range of "standard" writing (Microsoft Corporation, 1991-92b). The Gunning-Fog index is based on average sentence length (multiplied by a constant) as well as the number of multisyllabic words per sentence. In addition, the proportion of multisyllabic words is considered a relative index of reading difficulty. The Dale-Chall and Gunning-Fog formulas utilize comparative information. The Dale-Chall consists of a 3,000 word list and calculates difficulty based on the percentage of words not on this list as well as the average sentence length. The Gunning-Fog reports grade level by combining average sentence length with the percentage of words greater than three syllables.

Two other indices of potential reading difficulty were included in the analysis in addition the readability formulas. The Flesch human interest index was determined for each of these same passages by individual coding. This index attempts to measure the personal appeal of reading passages by assessing the number of personal words and sentences contained in the reading material (Flesch, 1974). Possible scores range from 0 to 100 divided into intervals of 10. The highest scores (70-90) indicate exciting, engaging reading matter exemplified by slick magazines and comics; lower scores (10-20) indicate dull material such as scientific and academic literature.

Writing style was evaluated by determining the number of passive sentences in the selected passages by the Microsoft Word 5.0 (Microsoft Corporation, 1991-92a) grammar checking program. This program provides the percentage of passive sentences, a writing style typical of technical and scientific writing (Bostian, 1983), and

an added dimension of reading difficulty when a reader is unfamiliar with the concepts presented or has low subject interest (Funkhouser, 1969).

Results

Reading Ease Analysis

Statistical analysis was provided by the computer statistical package STATSTAR (Academy Software, 1990). The reviewed books (see Table 1) exhibited readability levels ranging from a low estimate of 7.2 (Kincaid-Flesch formula) to several at the college junior level (Flesch, Dale-Chall, and Raygor). Overall, the Kincaid-Flesch formula provided the lowest overall means (9.9) and the Gunning produced the highest mean of 13 (college freshman) with standard deviations ranging from a low of 1.9 (Kincaid-Flesch) to a high of 2.571 (Fry).

Pearson product moment correlations found r values significant for all formulas at the $p = .05$ level. The most highly correlated formulas were the Kincaid-Flesch and Flesch ($r = .92$) with the Dale-Chall and Gunning ($r = .65$) having the lowest value. The text, Being a Nursing Assistant (Schneidman & Lambert, 1986), was identified by all formulas as having the lowest reading level (-1 standard deviation [SD] or more below the mean). Other texts identified as being greater than one standard deviation below the mean were Essentials for the Nursing Assistant in Long Term Care (Badasch & Chesebro, 1990), identified by six of seven formulas, followed by Being a Homemaker/Homehealth Aide (Zucker, 1991) with three of seven, and Text for Long Term Care Assistants (Hogan & Sorrentino, 1988), by one of seven. The most difficult (+1 SD or greater) texts were identified almost uniformly, by all formulas and included

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Table 1 Reading Levels and Means for Health Occupations Texts

AUTHOR	TITLE	FLESCH GRADE	KINCAID FLESCH	DALE CHALL	GUNNING	RAYGOR	FRY	\bar{X}	SD	FLESCH EASE	HUMAN INTEREST	PASSIVE %
Anderson & Burkard (1987)	<i>The Dental Assistant</i>	15.3*	14.3*	15*	18.4*	13	15	15	0	34.4*	.104	33**
Badasch & Chesebro (1988)	<i>The Health Care Worker: An Introduction to Health Occupations</i>	11.5	8.8	11.5	11.6	9	9	10.9	2.1	54.8	6.05	40**
Badasch & Chesebro (1990)	<i>Essentials for the Nursing Assistant in Long Term Care</i>	8.7*	7.3*	9.5*	10.5*	7*	8	8.4	.9	62.1*	18.69	24
Bledsoe, Porter and Shade (1991)	<i>Paramedic Emergency Care</i>	15*	11.8*	15*	14	15*	16	14.5	1.8	36.2	2.63	20
Ehrlich (1988)	<i>Medical Terminology for Health Professions</i>	13.7	11	14	13.8	10	13	12.9	1.4	44.9	0	18
Grant, Murray & Bergeron (1990)	<i>Emergency Care</i>	10.2	9A	11.5	12.1	9	9	10.0	1.1	59.3	9.8	33**
Hegner & Caldwell (1992)	<i>Nursing Assistant</i>	13.1	9.9	14	12.8	12	11	12	1.8	48.7	7.7	16
Hogan & Sorrentino (1988)	<i>Textbook for Long-Term Care Assistants</i>	10.4	7.8*	14	11.1		10	10.5	2.6	58.5	20.87	24
Keir, Wise & Krebs-Shannon (1989)	<i>Medical Assisting: Administrative and Clinical Competencies</i>	14.7*	11.9*	14	16.7*	13	15	14.8	2.3	38.1*	3.73	26

AUTHOR	TITLE	FLESCH GRADE	KINCAID FLESCH	DALE CHALL	GUNNING	RAYGOR	FRY	\bar{X}	SD	FLESCH EASE	HUMAN INTEREST	PASSIVE %
Marshall (1990)	<i>The Medical Laboratory Assistant</i>	11.8*	9.6	11.5	12.3	11	10	10. 7	1.1	53.8	18.58	20
Marshall & Harris (1990)	<i>Being A Medical Clerical Worker</i>	13.9	10.7	11.5	13.8	15*	13	12. 3	1.4	43.4	16.96	17
Milliken (1987)	<i>Understanding Human Behavior</i>	13	11.3	11.5	14.4	11	11	12	1	49.5	23.02	18
Schneidman & Lambert (1986)	<i>Being a Nursing Assistant</i>	7.8*	7.2*	9.5*	10*	8*	7	7.8	1.1	71*	16.48	10
Simmers (1988)	<i>Diversified Health Occupations</i>	10.9	8.8*	14	10.9	<i>10</i>	<i>10</i>	11	2	56.8	1.21	45**
Sorrentino (1982)	<i>Mosby's Textbook for Nursing Assistants</i>	14	10.6	14	13.2		14	14	0	42.7	11	36**
Will & Enghmy (1991)	<i>Being a Lang-Term Care Nursing Assistant</i>	13.1	10.7	14	13.9	12	12	12. 2	1.7	49	84.72*	11
Zucker (1991)	<i>Being a Homemaker/ Homehealth Aide</i>	8.9*	8.5	9.5*	11.7	8*	9	9	.5	60.5	26.19	36**

	\bar{X}	12	9.9	12.4	13	10.8	11.1			51.31	14	20
	SD	2.3	1.9	1.9	2.3	2.5	2.7			10.2	20.3	10.3

* = + or - 1SD

** PASSIVE STYLE IS >33 %

Dental Assisting (Anderson & Burkard, 1987), by six of seven, Medical Assisting (Keir, Wise, & Krebs-Shannon, 1989) and Paramedical Emergency Care (Grant, Murray, & Bergeron, 1990), by five of seven, and Being a Medical Clerical Worker (Marshall & Harris, 1990), by one of seven.

The average reading levels for the four easiest books were 7.8 for Being a Nursing Assistant (Schneidman & Lambert, 1986), 8.5 for Essentials for the Nursing Assistant in Long Term Care (Badasch & Chesebro, 1990), 9.00 for Being a Homemaker Homehealth Aide, (Zucker, 1991), and 10.9 for Health Care Worker: An Introduction (Badasch & Chesebro, 1988). The most difficult books had mean reading levels of 15 for Dental Assisting (Anderson & Burkard, 1987), 14.8 for Medical Assisting (Keir, Wiie, & Krebs-Shannon, 1989), and 14.5 for Paramedic Emergency Care (Bledsoe, Porter, & Shade, 1991).

Human Interest Scores

Human interest scores ranged from a low of 0 (dull) for Medical Terminology (Ehrlich, 1988) to a high of 84.72 (dramatic) for Being a Long Term Care Assistant, (Will & Enghmy, 1991). The mean score was 16 (SD = + or - 20.29) which indicated a rating of mildly interesting. Being a Long Term Care Assistant (Will & Enghmy, 1991) also rated as the only text significantly above the mean (+ 1 SD) in terms of human interest. In contrast to other studies (i.e., Swanson & Birklid, 1992), the correlation of human interest scores with Flesch reading ease scores was very low ($r = .18$). Certainly other factors can influence interest other than the personalized writing style, however, some writers have indicated that high human interest provides a positive mediating

factor when the book's content and vocabulary proved otherwise difficult (i.e., Bostian, 1983).

Writing Style

The percentage of passive sentences is often used as a measure of informal or formal writing style. A passive writing style is defined as a passage containing 30% or more of the sentences in the passive tense (Swanson & Birklid, 1992). Five of seventeen (29%) of the analyzed texts were identified as above this cutoff. Differences have been found among high school students in their comprehension of articles written in both passive and active styles (Bostian, 1983). It was noted that the active voice was especially advantageous to comprehension when the subject matter is unfamiliar to the reader or when motivation to read is low (Bostian, 1983). A moderately negative correlation was found ($r = -.42$) between the percentage of passive sentences and Flesch human interest scores and that lower interest material contained a higher percentage of passive sentences indicating a more formal writing style. A very weak correlation ($r = .18$) was found, however, between the passive scores and the Flesch reading ease scores.

Discussion

Results of this study must be interpreted within the limits of the study. The books analyzed may not be representative of the other ten books that are approved for use in several states and that were not analyzed in this study. There may not be widespread adoption of health occupations texts due to a variety of factors, including curricular demands. Other texts with greater or lesser degrees of reading difficulty may be in use

in individual districts unknown to the authors. The texts varied in the target occupations and different occupations may demand greater diversity and degree of vocabulary difficulty. Also, only textbooks and not other reading materials were evaluated in this study. Although consistent criteria for selection and length of text passages were used, a larger sample of text material would afford more reliable results.

Despite prior concerns about the validity and reliability of readability formulas, this study used a variety of formulas to ascertain the relative difficulty of textbooks in health occupations, with implications for their use with special populations students. The predictions of all the formulas were highly correlated ($r = .94$).

Although the formulas represented a variety of reading constructs, in practice they produced similar grade level rankings. Thus the use of multiple formulas would not appear to enhance the validity of an analysis of readability. A health occupations educator can select a single formula and be reasonably assured of valid results. Moderately high reliability in the identification of relatively easy to read texts could be further improved by the analysis of passages of greater length. These considerations should allow users to rely on the formulas available on microcomputers to evaluate relative reading ease of textbooks under consideration for classroom use.

Human interest scores remain an intriguing, but not very reliable, source of evaluation information in determining the appeal of certain textbooks to health occupations students. Since there was no correlation seen with the Flesch ease and only slight negative correlations with other formulas, this index appears specious as a method

of analyzing the relative reading ease of a given text. Other factors being equal, however, high human interest may motivate the special population learners.

Writing style also remains a weak variable for analysis. While passive voice and human interest appear negatively correlated ($r = -.42$) their effect on reading ease is not apparent. However, for special populations learners demonstrating low motivation and subject interest, these subjective factors should not be totally discounted. Certainly any gains, however small, in reading appeal should be considered as part of the total selection process.

Recommendations for Research and Practice

Suggestions for Instructional Personnel

Selecting texts with lower readability levels that maintain content integrity can enhance the vocational education of many students desiring entry-level jobs in health occupations by removing reading obstacles and enabling students to concentrate on the reading demands of the job. Additionally, use of lower readability texts reduces the likelihood that additional adaptation or rewriting of the text may be necessary.

The reconsideration of the primary role of the textbook as a source of vocabulary and conceptual content should occur within the framework of additional instructional resources and alternative teaching methods (Ostertag & Rambeau, 1982). Alternative instructional methods reduce the textbook reading demand and could allow a greater focus on the functional reading required in the vocational setting.

Even the easier texts may require additional modification to enhance their utility to the special populations learner. The need for and extent of modification can be

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determined by means of an informal reading inventory (Polloway & Patton, 1993). In this method, the student reads a passage and the instructor evaluates the percentage of correctly identified words. When student accuracy is over 95%, the reading material may be used independently by the student. Accuracy between 85% and 95% indicates reading material that may be used by the student with some instructional assistance. A score below 85% indicates reading material too frustrating for the student to use in learning new information. This reading matter would need to be modified for successful utilization. Certainly, informal reading evaluation can provide further information tin instructors in this choice of addressing reading obstacles by means of either text selection, text modification, or both.

The use of the microcomputer as an evaluation tool should also be noted. Many other grammatical computer programs exist, both as parts of word processing software and separate programs. The ease of evaluating passages with the built-in formulas can enhance the rapidity of text selection as well as modification.

Directions for Research

Several questions. remain to be addressed. Identifying with precision the extent and Uype of textbook modification that students need is a task that remains to be accomplished. The efficacy and methodology of modification efforts have yet to be fully assessed in terms of the vocational success of health occupations students. Further investigation into the utility of the microcomputer as a modification tool should provide practitioners with the opportunity to evaluate this method of curricular support for special populations learners. Health occupations teachers can utilize text selection, text

modification, and selective use of passages related to **specific** curricular exit points. As health occupations education programs expand to prepare workers for the 21st century entry-level jobs can and will be fried by people with lower literary capabilities.

Textbook evaluation remains a salient activity in the ongoing process of the curricular inclusion of at-risk and special populations learners into **health** occupations training programs at the secondary and **postsecondary** levels.

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