

AN ABSTRACT OF THE THESIS OF

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The purpose of this study was to investigate the effectiveness of a course of study developed at the University of Washington to provide a career education class at the beginning of the high school experience for special education students who are mildly handicapped in Tacoma Public Schools. The problem was to determine the change in career and vocational interests in students resulting from interaction between the student and a curriculum implemented in the career education class.

The treatment for the study was a career education program involving eighteen weeks of instruction. This program was designed to teach mildly handicapped students, grades 10-12 to use personal effectiveness techniques and activities to improve their self-esteem and behavioral control. Vocational assessment can assist in learning vocation strength/weaknesses and better understand job tasks common to occupational clusters. Through training in job seeking and retention, students should gain confidence in approaching employers requesting work for which they are qualified given their performance during work sampling. The Career Assessment Inventory was used to determine the subjects' interest relative to the Administrative Indices and General Theme scores provided by the test.

The design for the study utilized a multivariate repeated measures design. The treatment was a career education program. T-Tests on four administrative subscales and General Theme scales will be taken as clusters for two multivariate repeated measures analysis to calculate differences in the pretest-posttest. Based on the results of the data using a multivariate repeated measures analysis, there appeared to be little evidence that the treatment had a significant effect on student's mean scores for the four (4) Administrative Indices or the six (6) General Theme scales. It can be concluded that the interaction of the students with the treatment does not influence a significant change in students' measured interests.

INFLUENCES OF A CAREER CURRICULUM
ON CHANGES IN VOCATIONAL INTERESTS
OF MILDLY HANDICAPPED HIGH SCHOOL STUDENTS

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INFLUENCES OF A CAREER CURRICULUM
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I. INTRODUCTION

Career education has sparked new interest in the scope and content of education's efforts to prepare individuals for their adult roles and responsibilities (Kokaska & Brolin 1985). The concept of career education has survived for a full decade--three times as long as the typical educational reform movement (Hoyt, K. B. 1980). Legally, education is responsible for handicapped students until they are twenty-one years of age. If these statements are true, why then does the majority of curriculums deal with needs of special education students in grades K-12, and conveniently ignore the preparation needed for students who graduate or drop out of school?

Raising a handicapped child can be likened to striking out on a long unplanned journey with only the sketchiest of maps in hand (Razeghi, J. A.). This experience means finding the right doctors, the nearest clinic, the best schools, getting the most appropriate class placement, working closely with teachers, and sometimes simply getting through the

day. There is so much time and energy expended on immediate problems that the future is given little consideration. It is extremely important for parents and educators to consider the following two questions:

1. Where will the child/student be and what will he/she be capable of doing upon completion of school?>
2. Is school preparing my child to enter the world of work at a level commensurate with his or her abilities?

This paper is designed to evaluate a new course of study in Tacoma Public Schools. In conjunction with the District No. 10, the University of Washington developed a career education curriculum for mildly handicapped special education students at the beginning of their high school years. Placement decisions concerning electives or work programs are often made by special education teachers with little or no information about the students' interests or abilities. Especially affected is the mildly handicapped student.

Lack of funding makes it impossible for school districts (Tacoma) to use outside resources, such as the Regional Vocational Assessment Center (RVAC). These RVAC evaluations are reserved for the more severely handicapped.

The goals of the Tacoma Public School District are to increase the life skills of mildly handicapped students and to obtain data related to

their skills and interests. Given accurate information about their abilities and interests, students can be better prepared to make post-high school decisions. Job retention, building self-confidence, and career awareness are areas that reinforce the course of study. The program is intended to provide high school seniors with the skills necessary for an independent livelihood, and data for the District to enhance the probability of goal attainment.

STATEMENT OF THE PROBLEM

The purpose of this study is to investigate the effectiveness of a course of study developed at the University of Washington to provide a career education class at the beginning of the high school experience for special education students who are mildly handicapped in Tacoma Public Schools. The problem was to determine the change in career and vocational interests in students resulting from interaction between the student and a curriculum implemented in the career education class. The Career Assessment Inventory (CAI) was given as a pretest and posttest to measure possible change of interests that occur.

OBJECTIVES

Major objectives for the research include:

1. Provide teachers with a better understanding of handicapping conditions.

2. Test effectiveness of a career education course for the mildly handicapped special education student in secondary schools.
3. Implement treatment by exposing the experimental group to a career education course.
4. Determine career interests of subjects and statistically analyze data associated with pretests and posttests.
5. Project implications for career education instruction for mildly handicapped students in secondary schools.

NEED FOR STUDY

Laws now exist to prevent discrimination by race, sex, age, national origin, marital status, religion, and handicap. The existence of these laws demonstrates that Americans are beginning to take very seriously the rights of each individual. These rights demonstrate a need for career education in public schools. Chances are you may never have experienced career education in any of your classes, but it is an important part of the curriculum in assisting handicapped students in reaching their full potential in society (Razeghi, Ginyard 1980).

One of the greatest barriers to equality, particularly in the area of employment, is the stereotyping which persists against the handicapped. Stereotyping of employment capabilities is so strong that the person being stereotyped often isn't aware of it. Ignoring handicapped students in curriculum concerning occupations, reinforces career stereotyping by limiting possible choices of employment.

By the time a handicapped student reaches high school age, it is almost too late to convince that student that career options are possible. Parents and students alike have been directed into thinking about a limited number (if any) of career goals. Career education programs aimed at opening employment doors must be developed. Congress was aware of the need to emphasize vocational training for handicapped persons as early as 1968. The Vocational Education Amendments of 1968 (P.L. 90-576, sec. 122(a)(4)(B)) required ten percent in grants to states be set aside for preparing handicapped persons who could not otherwise succeed without special assistance in regular vocational education programs. Current vocational education legislation and the Carl Perkins Vocational Education Act of 1984 have an even greater percent and dollar commitment to handicapped vocational youth. Public Law 94-142, the Education for All Handicapped Children Act of 1975, also included language that expressed Congress's intent that handicapped students received appropriate vocational education through the public schools. The 1983 amendments to P.L. 94-142 expanded on the federal commitment:

P.L. 98-199 provides funds to establish additional secondary education and transition services for handicapped youth.

Recent employment statistics concerning handicapped persons indicate the need for such programming. Forty percent of the adult handicapped population is employed compared to 74% of the nonhandicapped population (Leviton & Taggart, 1976). In addition, of employed handicapped individuals, 85% earn less than \$2,000 per year (U.S. Census Bureau, 1976). The cost of dependence among unemployed disabled individuals currently exceeds \$115 billion per year (Razeghi, 1979).

Post graduating handicapped students only had entry level skills for acquiring a job. As Hoyt (1975) stated:

"We have for far too long, seemed to act as though a handicapped person should be both pleased with and grateful for any kind of work society provides. Unlike other persons, we seem to assume that, if a person is handicapped, boredom on a job is impossible... If any job in the world of paid employment can be found for the handicapped person, we seem far too often to be personally relieved and surprised when the handicapped person is anything less than eternally grateful" (Hoyt, K. B. 1975 P. 6-7).

The Department of Labor estimates that four out of five jobs currently do not require college degrees (Evans & Herr, 1978). Madeleine Will, Assistant Secretary for Special Education and Rehabilitative Services, U.S. Department of Education, has spoken often about the need to prepare handicapped youth for sustained employment, which she states is an important outcome of education (Will, 1984). She reiterates the need for school programs--special and vocational education--to work together to make a successful transition to adult living.

Significant findings in 1984 survey of former special education students in Pierce County, Washington (Tacoma Public Schools) indicated that 50 percent of handicapped learners were unemployed upon secondary school termination. This is double the rate of unemployment for nonhandicapped 18-24 years old (22.7%) and more than four times the overall unemployment rate (11%-12%). Over 80% of the students surveyed have no involvement with post secondary schooling.

This discrepancy between legislative intent and actual practice could result in a number of cases in litigation. Former Director of the Office of Civil Rights and Washington D.C. attorney Martin Gerry predicts that educators may soon be faced with a wave of lawsuits demanding that schools prepare students for community living and employments. Gerry told special education directors that preparation for life after schooling is of paramount importance. Secretary Madeleine Will emphasized this when she commented that state and federal

legislation in the last decade has resulted in an "unprecedented number of students with disabilities (who) are nearing the age for leaving school" (Will, 1984 p.5).

In 1980, Washington mandated that individual education plans for handicapped students who are 14 years of age or older must include "career development and vocational education" (W.A.C. 392-171-315). The present study was designed to examine a course of study in career education and determine its effectiveness for influencing vocational interests of mildly handicapped secondary students.

Interest usually is defined as a positive attraction toward an object or activity (Tyler, 1978). Strong (1943) defined vocational interest as "the sum total of many interests that bear in any way upon an occupational career" (Strong, 1943, p.21). For further consideration, the directions a person's life takes often depend upon efforts to avoid certain situations and failure to consider or ignoring feasible alternatives.

Researchers agree that interest patterns remain constant once individuals grow into adulthood (Crites, 1969; Tyler, 1974). Tyler and Crites agree that if changes occur, these changes will occur during adolescence, and with a striking degree in some individuals.

Considering the ideas and research already completed, the adolescent years are the critical time in the developmental period to introduce experimental-based intervention programs designed to help

individuals differentiate and choose occupational interests (Dunkleberger and Tyler, 1961). A career education class would expand vocational interests, and also serve to implement the "exclusion process" that Tyler described as the rejection of certain vocational fields. Ability to identify what one does not want to do is as important as knowing what one wants to do.

The need for career exploratory programs was expressed in the following quote:

"Adolescence is a period of exploration and re-evaluation, and the boy or girl who uses it to try out various possibilities, activities, and lifestyles may be better adjusted and better satisfied after he attains his mature identity than the one who clings to familiar patterns" (Tyler, 1974, p. 156).

DEFINITION OF TERMS

The terms or phrases following are defined as they relate to the present study; other terms or phrases are considered self-explanatory.

1. Career Education - The totality of experiences through which one learns about and prepares to engage in work as part of his or her way of living (Hoyt, 1975; U.S. Office of Career Education). As the systematic coordination of all school,

family, and community activities that can be used to actualize each person's potential (Kokaska and Brolin, 1985).

2. Vocational Education - The law defines vocational education as organized educational programs which are directly related to the preparation of individuals for paid or unpaid employment or for additional preparation for a career requiring other than a baccalaureate or advanced degree. (P.L. 94-142) In the broadest sense, vocational education is that part of education which makes an individual more employable in one group of occupations than in another.
3. Special Vocational Education - Handicapped students which are taught by a qualified vocational educator.
4. Interests - The focus of effortless, active attention which becomes progressively differentiated (Hoppock, 1976). A motivational force that usually connotes a liking for an object or activity but also is influenced by a disliking of objects or activities (Tyler, 1974).
5. Vocational Interests - The sum total of many interests that bear in any respect upon an occupational career (Strong, 1943).
6. Handicapping Conditions - as pertains to the following:
 - a. HEARING IMPAIRED - Students with a permanent or varying hearing problem who are not included under definition of deaf (Collins, Thompson, 1980).

- b. EDUCABLE MENTALLY RETARDED - Students who have a slower rate of academic achievement than peer age group (Collins, Thompson, 1980).
- c. ORTHOPEDICALLY IMPAIRED - A severe orthopedic impairment which adversely affects a child's educational performance (Collins, Thompson, 1980).
- d. SERIOUSLY EMOTIONALLY DISTURBED STUDENTS - Students with an emotional condition occurring over a long period of time and to such a degree that students do poorly in school (Collins, Thompson, 1980).
- e. SPECIFIC LEARNING DISABILITY - Students with a physical and/or psychological learning disorder that causes the students to have problems understanding spoken or written language (Collins, Thompson, 1980).
- f. SPEECH IMPAIRED - Students with a speech or vocabulary problem that causes them to do poorly in school. Included in this category are stuttering and voice or language impairments (Collins, Thompson, 1980).
- g. VISUALLY IMPAIRED - Students who have no vision or who have visual impairments which even with correction result in educational handicaps requiring special provisions (Collins, Thompson, 1980).

- h. NEUROLOGICALLY IMPAIRED - Students who are physically impaired exclusively.
- i. MULTIHANDICAPPED - Students with two or more handicapping conditions.

II - REVIEW OF LITERATURE

HANDICAPPING CONDITIONS

There is no universal definition of handicap or disability. Often, public and voluntary organizations create their own definitions. In reality, however, many factors determine whether these individuals become differentiated from the non-handicapped. A general distinction is made between the terms disability and handicap. If a disabled person is perceived as being unable to resume normal activities, he is described as being handicapped (Kokaska and Brolin 1985).

The Office of Information and Resources for the Handicapped, established by the Department of Education defines a handicapped individual as follows:

A handicapped individual is one who has a physical or mental impairment or condition that places him at a disadvantage in a major life activity such as ambulation, communication, self-care, socialization, vocational training, employment, transportation, or adapting to housing. The physical or mental impairment or condition must be static, of long duration, or slowly progressive.

Basically, all definitions seem to agree that handicapped deviate from the average in mental, physical, or social characteristics to the extent that they require special education or rehabilitation services in order to develop to their maximum level of potential (Kokaska and Brolin 1985).

A significant portion of the population in America is handicapped in some way. It is difficult to ascertain exactly how prevalent these conditions are in that figures derived from different studies are dependent on definitions and survey methods are used. The results from these studies vary, therefore these results can only be used as estimates. Gearheart (1980) proposed that it would be best to project a range of prevalence for each category based on composite estimates from the federal government, professional organizations, and advocacy groups. Halloran (1978) presents the estimated incidence in the table contained in appendix B.

Possibly, the best estimate (Gluedman & Roth, 1980) reveals that ten million children and 30 million adults are handicapped and that they comprise the largest and possibly least understood minority groups in this country.

One of the major problems facing people with disabilities is the too frequent perception by others that they are

incompetent. Some common perceptions noted by Wolfensberger are that such people are:

1. subhuman organisms
2. menaces to society
3. unspeakable objects of dread
4. objects of pity
5. diseased organisms
6. objects of ridicule

To alleviate these perceptions, a normalization policy has gained considerable momentum throughout the United States and many other countries during the seventies. Normalization can be defined as:

"...utilization of means which are as culturally normative as possible, in order to establish and/or maintain personal behaviors and characteristics which are as culturally normative as possible (Wolfensberger, 1972, p. 28).

This policy can best be implemented by designing programs to fit the needs of handicapped individuals rather than their having to meet the requirements of the program. Olshansky (1972) stated the importance of this concept when he stated:

"What a person is capable of doing or becoming depends less on what he was or what his history may disclose, or what level IQ he may have, or how he has been labeled. His potential for normal behavior will depend more on the kind and quality of opportunity he may be offered (Olshansky 1972, p.160)."

One final thought was clearly stated by Bethell (1979) concerning handicapping conditions. Everyone needs to remember that handicapped people are members of a minority group that inspires not only sympathy, but fear, terror, and superstition. It's the one minority group you or I could join at a moment's notice.

HISTORY OF CAREER EDUCATION

In 1971 career education was proclaimed as a major educational reform when U.S. Commissioner of Education, Sidney P. Marland, Jr., introduced the concept to a group of secondary school principals at a national educational convention in Houston, Texas. Marland and his associates believed that the dropout rate in American schools was partly caused by the educational system failing to provide students with knowledge that would be relevant to their future goals and potentials. When educators voiced more practical and meaningful approaches to education, career education was born.

In most states career education progressed rapidly during the decade of the 1970's and into the 1980's. In 1976, Dr. Marland returned to Houston to keynote the first National Commissioner's Conference on Career Education. He stated that probably never in our educational history has there been such enormous movement toward a central concept of reform over such a brief span of time. Hoyt (1980), at the Helen Keller Centennial Conference, noted that the career education concept has survived for a full decade, three times as long as the typical educational reform movement. Students who have been through a career education program are able to use their educational experience to cope with the demands of adult life.

Some of the major historical events having direct implications for handicapped individuals have been the following: (Brolin, D.E. 1985)

- o In 1972 the federal special education agency (then the Bureau of Education for the Handicapped) endorsed career education. The Bureau's director, Edwin Martin, declared career education a top priority and made funds available for a large number of curriculum and materials development projects, in-service and pre-service training, and research studies.
- o In 1973 a National Topical Conference on Career Education for Exceptional Children and Youth was held. This important conference, cosponsored by the Council for Exceptional Children

(CEC) and the American Vocational Association (AVA), launched the concept of multidisciplinary career education, which received endorsement from professional teacher associations. The conference brought together legislators, lawyers, advocates, business and industry leaders, and an array of educators from various disciplines who presented service-delivery models, methods, and materials for providing career education.

- o In 1974 a U.S. Office of Career Education was officially established within the Office of Education. Kenneth B. Hoyt was appointed the director of the U.S. Office of Career Education and established leadership for career education within the federal bureaucracy. The office wrote and disseminated important position papers and monographs, sponsored workshops and mini-conference with significant individuals and organizations, funded special projects, and promoted legislative and programmatic developments.
- o In 1975 the Bureau of Education for the Handicapped (BEH) sponsored a conference for nationally recognized leaders on "Research Needs Related to Career Education for the Handicapped." After several days of intensive group interactions and problem solving, members of the conference established priorities that set BEH funding patterns. In St. Louis later that year, a small band of concerned educators organized a committee to establish a new division within the CEC that would focus on and promote implementation of career

education. The new division was entitled the Division on Career Development (DCD). A similar group formed within the AVA become known as the National Association of Vocational Education Special Needs Personnel (NAVESNP).

- o In 1976 the Division on Career Development (DCD) was provisionally approved as the 12th division of the Council for Exceptional Children by an overwhelming vote of its Board of Governors. The division elected its officers and became a significant branch of CEC. Two other important events that occurred during this year were the first National Commissioner's Conference on Career Education and the passage of the Vocational Education Amendments. The Commissioner's Conference drew over 8,000 enthusiastic participants who exchanged ideas about providing career education to all age groups. The Vocational Amendments required that 10% of federal funds be allocated for handicapped students as outlined in P.L. 94-142.
- o In 1977 the Career Education Implementation Incentive Act (P.L. 95-207) helped states infuse career education into school curricula so that it became part of ongoing local instruction, and was not just considered vocational education. Congress declared: "A major purpose of education is to prepare every individual for a career suitable to that individual's preference...career education should

be an integral part of the Nation's education process which serves as preparation for work" (including students with handicaps).

- o In 1978 the Council for Exceptional Children issued a position paper supporting career education. Career education was described as the "totality of experiences through which one learns to live a meaningful, satisfying work life...provides the opportunity for children to learn, in the least restrictive environment possible, the academic, daily living, personal-social and occupational knowledges and specific vocational skills necessary for attaining their highest levels of economic, personal, and social fulfillment. The individual can obtain this fulfillment through work (both paid or unpaid) and in a variety of other social roles and personal life styles....student, citizen, volunteer, family member, and participant in meaningful leisure time activities."
- o In 1979 Special Institutes and the National Topical Conference on Career Education for Exceptional Individuals were held in conjunction with one another. This conference, sponsored by the CEC, and the Institutes brought together a wide variety of professional works who demonstrated that career education could be infused and implemented into a variety of settings by numerous methods. Approximately 1,000 people weathered the blizzard of 1979 in St. Louis and expressed enthusiasm for continuing the conference on a more frequent basis.

- o In 1980 the Division on Career Development started to form state DCD units. The division's membership became the fastest growing in CEC and states began to organize at the grass roots level. As of 1984, 25 DCD state units had been approved by the national organization.
- o In 1981 the DCD conducted an International Conference on Career Development for Handicapped Individuals. Despite severe nationwide financial constraints, the conference was highly successful and set into motion the planning of a similar conference that was held two years later. In addition, several states started organizing and conducting conference at the state and local levels.
- o In 1982 the Career Education Incentive Act was repealed on October 1, and the Office of Career Education began the process of phasing out. The Career Education Incentive Act was never intended to be renewed; instead it was designed to provide federal incentive funds so that state and local districts could initiate career education and make it part of their educational effort. The Omnibus Budget Reconciliation Act of 1981 moved career education into the block grant program with the hope that most state departments of education and local school districts would make career education a priority and appropriate even more funds. Thus, the block grant approach could be a significant boon to the future of career education.

- o In 1983 two important career education national conferences were held. The Second National Conference on Career Education was held June 13--16 in Louisville, Kentucky. Kenneth Hoyt, on leave from the federal government to serve as Distinguished Visiting Scholar at Embry-Riddle Aeronautical University, spearheaded its development. In polling career education proponents across the country, Hoyt found an overwhelming positive response to having such a conference. The other important conference was sponsored by the CEC's Division on Career Development (DCD) in cooperation with NAVESNP and the Special Needs Division of the American Vocational Association. It was held October 20-22 in Chicago. Both of these conferences demonstrated that interest and enthusiasm for career education was not waning but progressively growing (Brolin, 1983, 4-6).

DEVELOPMENTAL TASKS AND STAGES IN CAREER DEVELOPMENT

One of the most complex and worrisome tasks of adolescents in America is selecting and preparing for an occupation (Havighurst, 1972). He further stated that occupational choice and preparation is a main contributor for adolescents facing Erikson's theory of "identity crisis." Pressure created by adolescents attempting to make occupational choices is tremendous.

In 1951, Ginzberg, Ginsburg, Axelrad, and Herma suggested a career development theory including three periods of development; fantasy (1-10 years), tentative (11-18 years), and realistic (19 years and older). As an individual moves into the second stage, the individual considers himself/herself as an entity which is both stable and changing. Realistic elements such as ability become a focus of vocational considerations. In the Ginzberg schema interest recognition would have been realized by age 11 or 12.

Super and his associates have done a great deal of research based on developmental stages and expression of self-concept. The research has provided a basis for career education concepts. The beginnings of his work stemmed from the developmental stages outlined by Charlotte Buehler which are growth (0-14) years, exploratory (15-24) years, establishment (25-44) years, maintenance (45-64) years, and decline (65 years and over) (Super, 1972). Early adolescence is most closely associated with the tentative stage. At this time, the individual tentatively questions the concept of vocational concerns and the importance of decisions begins to be recognized.

Holland also conceptualized a career development theory relevant to this study. He categorized occupations according to six environments: 1) realistic, 2) investigative, 3) social, 4) conventional, 5) enterprising, and 6) artistic. Holland believed individuals had a developmental hierarchy which impels him/her towards one of these

environments, and an individual's personality, a function of genetic and environmental factors, would be expressed within one of the six environments (Holland, 1972). This theory provides the basis for several career interest inventories including the Career Assessment Inventory used in this study.

These various theories imply that a critical stage of career development is during adolescence and reinforces the need for a career education curriculum.

ROLE OF INTEREST IN CAREER DEVELOPMENT

Roe's definition of interests quoted by Hoppock (1976) as the focus of effortless active attention, which becomes progressively differentiated. Interests develop out of needs which become unconscious motivators depending upon the degree by which needs are satisfied. Attitudes and interest were equated by Strong (1943) as "felt," stabilized dispositions resulting from experience and determining resulting behavior. Education can modify interests since interests are learned as a result of reactions to specific things.

The role of the interests in career development is summed up by Osipow (1973):

"Interests play an intimate role in career development theory, but the particular role is not typically stated in

an explicit fashion in the theories of career development. Some theorists, such as the Ginzberg group, assign interests a significant role at a particular age period. Others such as Super and Roe tie interests more directly to occupational behavior. Super's theory views interests as an aspect of the self-concept, whereas Roe believes it to be derived from psychic Energy and lead to one's fundamental orientation toward or away from people. Interests are seen as growing out of individual need hierarchies by the needs theorists; interests are another aspect of the person-occupation questions, something to be assessed but not necessarily analyzed. The social systems and value approaches are likely to view interests as reflections of the forces of society and family."

(p.230-231)

STAGES OF DEVELOPMENT

There is general agreement that career education consists of four stages of development: career awareness, career exploration, career preparation, and career placement, follow-up and continuing education. Depending on students' needs and skills these stages begin and end at different times for all students.

Career Awareness: During the elementary years, students should be learning daily living skills that will allow them to assume responsibility for roles necessary in day-to-day living. At this time students will discover and attempt to fulfill new interests.

Personal-social skills will help students develop a sense of confidence and self-worth as well as help them become more aware of their feelings, values, and potentials (Kokaska and Brolin 1985).

Attitude, information, and self-understanding are the three main elements of career awareness. These concepts produce a self-understanding that enhances the development of students' careers by making them more aware of their relationship to the world and by helping them identify their eventual adult roles (Kolstoe, 1976).

Career Exploration: This stage begins at the elementary level, but a greater emphasis should occur during the junior high school years. The elements learned during the awareness stage should continue and be reinforced. At this time students begin a more careful self-examination of their unique abilities and needs in relationship to the world of work, avocational interests, leisure time, and other roles related to career development.

Career exploration is the link between career awareness and career preparation. Young students begin to think seriously about their particular set of aptitudes, interests, and needs and how these traits can be directed toward meaningful and successful adult roles.

Career Preparation: This stage is not solely confined to one period of schooling. Although it begins in the early grades and continues through life, it is a critical time for those individuals in high school who do not go on to post secondary training or education. Students will be forming tentative career choices, so the curriculum strives to meet these needs.

This stage may be counterproductive if students are forced into making a premature career decision. Situations of this type often occur when curriculum is limited and/or labels and stereotyping confines a student to a pre-determined choice.

Career Placement, Follow-up, and Continuing Education: Career placement is the stage that pulls all previous stages together (Kokaska and Brolin 1985). Yet this stage is the time where we ignore most of our handicapped students. Career placement, follow-up, and continuing education is the most realistic stage of the career education program. It should extend intermittently over several years for many students. Success for the handicapped student has a direct relationship to this stage. Handicapped people, as well as the non-handicapped person, have life-long learning needs that justify follow-up and support services (Kokaska and Brolin 1985).

III - RESEARCH METHOD AND DESIGN

The major concern of this study was to investigate changes in career interests resulting from exposure to a career education class lasting eighteen weeks. The research methodology used was a multivariate repeated measures design using multiple scores from the pretest and posttest. Research procedures are reviewed in the sections that follow:

THE DEPENDENT VARIABLE

The dependent variable for the study were student's adjusted scores on the Career Assessment Inventory. The Administrative Indices and General Themes were utilized as primary score for analysis.

THE CAREER ASSESSMENT INVENTORY (CAI)

An instrument was sought that would indicate change in student interests. In addition, ease of administering and readability level were necessary criteria. Each of these criteria were met by CAI.

Description: CAI is a 305-Item Interest Inventory that is standardized at the sixth grade reading level, which was necessary for compatibility with subjects to be tested. The CAI can be used with groups or individuals and generally can be completed in thirty to

forty-five minutes. There is, however, no time limit. The inventory is appropriate for those who seek immediate career entry information on careers that require limited post secondary education at the community college, business, vocational-technical or four-year university.

Holland's six occupational themes provides the basis from which the CAI is organized.

Norming: A general normative sample of 1,500 adults (750 males, 750 females) was tested on six themes to provide a reference point for the various scales. The resulting means and standard deviations were used to convert raw scores to standard scores. The mean of the combined sample of males and females was set at 50 with a standard deviation of 10 for each of the six scales selected converting raw scores to T-scores.

Validity and Reliability: Content validity, construct validity, and concurrent validity were deemed acceptable when investigated for the six Theme scales.

Correlating the CAI with the Strong Campbell Interest Inventory and the Vocational Preference Inventory produced r values ranging from .70's and .80's, providing high positive construct validity for the Theme scales.

An important consideration was to ascertain if the six scales evinced concurrent validity among various occupational groups. Operating properly, the scales should produce mean scores for various occupational samples that are distributed over a wide range of scores and appear in

a meaningful, logical order. A review of data demonstrated this; thus, the General Theme scales exhibit concurrent validity (Johansson, C. B. 1984).

When investigating the test-retest reliability of the General Theme scales, five samples were used. Employed adults comprised a majority of the samples, the test-retest intervals varied from one week to seven years. The median values over the five intervals for the General Theme scales are all extremely high—in the .90's for intervals up to thirty days and .80's for intervals as long as six to seven years. The validity and reliability coefficients were acceptable for using the CAI for this study.

Administration and Scoring: Administering the CAI may be completed by groups or by individuals. Depending on subjects being tested, it can be helpful to read printed instructions aloud. Completion time is approximately thirty to forty-five minutes, however, there is no time limit. A five-point Likert scale ranging from "Like Very Much" to "Dislike Very Much" are the response alternatives for each of the 305 items. Scoring is done by machine.

THE INSTRUMENT

One instrument was utilized in this study. The Career Assessment Inventory (see Appendix A) which was used to determine the subjects' interest relative to the Administrative Indices and General Themes scores provided by the test.

The Administrative Indices are divided into four subgroups: Fine Arts - Mechanical; Occupational Extroversion - Introversion Scale; Educational Orientation Scale; Variability of Interests Scale.

Fine Arts - Mechanical: The development of this scale provides an index that identifies individuals strongly oriented towards one end of the continuum.

Occupational Extroversion - Introversion Scale: This scale helps identify individuals who favor occupations involving working alone (ex. electrician, truck driver, mechanic) or occupations that deal with people (ex. teacher, counselor, child care.)

Education Orientation Scale: Measures an individual's interest and preference toward the educational environment. The higher the score the greater the preference for academics; the lower score represents dislike.

Variability of Interest Scale: High scores on the scale indicate a diverse pattern of likes; low scores indicate a narrow focus of interests.

The General Theme Scales were developed in 1975 for the Career Assessment Inventory to tie into the research work of John Holland (1973). The six General Theme scales for the Inventory have proven effective in giving an overall broad view of an individual's interests in:

R-Theme (Realistic): mechanical/skilled trades interests

I-Theme (Investigative): scientific/analytical interests

A-Theme (Artistic): creative/self-expressive interests

S-Theme (Social): social service/helping interests

E-Theme (Enterprising): business/selling interests

C-Theme (Conventional): business detail/record-keeping interests

(Johansson, 1984, p.29)

TREATMENT

The treatment for the study was a tri-level career education program involving eighteen (18) weeks of instruction. The design of the program was developed through the Office of Superintendent of Public Instruction, funded 1984-85 Technical Assistance Project, University of Washington with cooperation of the Tacoma School District, Tacoma, Washington.

This trifurcated program was developed and designed to teach mildly handicapped students, grades 10-12 to use personal effectiveness techniques and activities to improve their self-esteem, behavioral control, values clarification, and goal setting skills. Vocational assessment can assist in learning vocation strengths/weaknesses and better understand job tasks common to occupational clusters. Through training in job seeking and retention, students should gain confidence in approaching employers requesting work for which they are qualified given their performance during work sampling.

It was assumed graduates are prepared for the transition to post secondary, because they will have been exposed to sound life management

skills, and be aware of their assets as well as their areas of weakness.

This study was designed to investigate changes in career interests with increased information concerning personal effectiveness, retention skills, and career choices.

The treatment was field-tested with selected high school students from the Tacoma Public Schools and the results were used in this study.

THE DESIGN

The design for the study utilized a multivariate repeated measures design. The treatment was a career education program. T-Tests on four administrative subscales and General Theme scales will be taken as clusters for two multivariate repeated measures analysis to calculate differences in the pretest - posttest. A pretest, posttest approach allows testing for a significant difference when looking at the four Administrative Indices and six (6) General Themes.

I anticipate that there will be a change.

THE POPULATION AND SAMPLE

The population consisted of mildly handicapped high school students in Tacoma Public Schools in Tacoma, Washington. The students represented learning disabled, behavioral disabled, and mild mentally retarded special education students.

There are approximately 627 learning disabled, behavioral disabled, and mildly mentally retarded special education students in Tacoma's high schools.

The study's population consisted of students enrolled in the Tri-Level Career Education program at the four Tacoma high schools. Ninety-three students were scheduled into this curriculum spring semester, 1986. The entire population was pretested. After fourteen weeks sixty of the students were given the posttest. The other thirty-three students were no longer enrolled in the classes.

According to Dr. Tom Dinero, Associate Professor of Education Statistics and Measurement, Kent State University, two subjects per variable is acceptable for a multivariate repeated measures design. This study used a multivariate repeated measures design involving ten variables and provided a six-to-one subject per variable ratio. This ratio was considered to be more than adequate in terms of providing valid inferential information.

IV - ANALYSIS OF THE DATA

The purpose of this study was to investigate the effectiveness of a course of study developed at the University of Washington, Seattle, Washington, to provide a career education class for high school special education students who are mildly handicapped. The study's population consisted of the entire group of students enrolled in the Tri-Level Career Education program offered in four Tacoma high schools. The purpose was to determine the change in career and vocational interests resulting from interaction between students and a planned curriculum. The Career Assessment Inventory (CAI) was given, pretest/posttest to measure change of interests. Ninety-three students were scheduled in this curriculum, spring semester, 1986. The entire population was pretested. After fourteen weeks sixty of the students were given the posttest. Of those sixty students, fifty-six students were used in the data analysis. The other thirty-three were no longer enrolled in the classes.

The two clusters of dependent variables were four Administrative Indices and six (6) General Themes of the CAI. The four Administrative Indices were: Fine Arts-Mechanical Index, Occupational Extroversion-

Introversion Index, Educational Orientation Index and Variability of Interest Index. The six (6) General Theme scales were: Realistic, Investigative, Artistic, Social, Enterprising and Conventional.

The design of the study utilized a multivariate repeated measures design. The four administrative subscales and six (6) General Theme scales were taken as clusters for two multivariate repeated measures analysis to determine differences between the pretest and posttest. In this case, the treatment was a career education program. Using the pretest/posttest approach allows testing for a significant difference when looking at the four Administrative Indices and the six (6) General Themes. T-tests and univariate F-tests were also used as follow-up tests on each dependent variable which allowed for differences among the individual variables. The specific means and standard deviation of the pretests and posttests are shown in Table III. The .05 alpha level was used as the criterion for retaining or rejecting the null hypotheses.

The hypotheses tested in the study were as follows:

H_1 : There is no significant difference in the pretest-posttest scores of the four Administrative Indices.

H_2 : There is no significant difference in the pretest-posttest scores for the six (6) General Themes.

FINDINGS RELATIVE TO THE HYPOTHESIS UNDER INVESTIGATION

H₁: There is no significant difference in the pretest-posttest scores of the four Administrative Indices. (F=2.2 df=4, 52, n.s.)

Overall the null hypothesis cannot be rejected when using the multivariate test. However, on the Fine Arts-Mechanical Index which provided an overall measure of how the students responded to aesthetic and mechanical items, the mean score differences were found to be significant (F=5.3, df=1, 55, p<.05). The opposite result was found on the Occupation Extroversion-Introversion Index (F=3.5, df=1, 55, n.s.) (overall view of a persons preference to work alone or with others) and the Education Orientation Index. More important, the Variability of Interest Index (F=5.6, df=1, 55, p<.05) which indicates the diversity of a person's interest preferences, was found to be statistically significant at the .05-level. Therefore, the null hypothesis may be rejected for this particular scale. The specific results are presented in Table 1.

H₂ There is no significant difference in the pretest-posttest scores for the six (6) General Themes. (F=1.1, df=6, 50, n.s.)

Upon comparing the scores for the six (6) General Theme sub scales (Realistic, Investigative, Artistic, Social, Enterprising and Conventional), no significant differences were found. Therefore, the null hypothesis was retained. Specific results are presented in Table 2.

For purposes of this study, H_1 was considered to be the principal hypothesis. Using a multivariate repeated measures analysis on the four Administrative Indices, there was no significant difference between the pretest and posttest scores. However, the univariate tests determined a significant difference concerning the Variability of Interest and Fine Arts-Mechanical subscales of the Administrative Indices.

Table 1
Administrative Indices
 Univariate Repeated Measures Analysis
 of
 Variance Results

Variable	SS_H	SS_E	MS_H	MS_E	F	P
Fine Arts-Mechanical	132.9	1374.1	132.9	25.0	5.3	.05
Occupation Extroversion- Introversion	185.1	2921.9	185.1	53.1	3.5	NS
Education Orientation	98.4	2966.1	98.4	53.9	1.8	NS
Variability of Interest	357.1	3534.9	357.1	64.3	5.6	.05

Table II
General Themes
 Univariate Repeated Measures Analysis
 of
 Variance Results

Variable	SS_H	SS_E	MS_H	MS_E	F	P
Realistic	2.6	1873.9	2.6	34.1	.1	NS
Investigative	67.6	2248.9	67.6	40.9	1.7	NS
Artistic	26.0	1280.0	26.0	23.3	1.1	NS
Social	8.0	1709.0	8.0	31.1	.3	NS
Enterprising	43.8	1888.3	43.8	34.3	1.3	NS
Conventional	3.9	1422.6	3.9	25.9	.2	NS

Table III

Variables

Variables		Pretest	Protest
Fine Arts-Mechanical	(mean) (Std. Dev.)	54.3 12.1	56.5 11.3
Occupation Extroversion- Introversion	(mean) (Std. Dev.)	57.4 14.3	60.0 14.4
Education Orientation	(mean) (Std. Dev.)	20.1 14.9	18.3 15.8
Variability of Interest	(mean) (Std. Dev.)	47.4 16.5	43.8 14.9
Realistic	(mean) (Std. Dev.)	46.6 10.9	46.9 10.8
Investigative	(mean) (Std. Dev.)	41.9 11.6	40.3 13.0
Artistic	(mean) (Std. Dev.)	44.6 9.2	43.6 10.0
Social	(mean) (Std. Dev.)	45.4 10.3	44.8 10.3
Enterprising	(mean) (Std. Dev.)	47.6 11.9	46.3 11.6
Conventional	(mean) (Std. Dev.)	47.3 11.8	47.6 10.4

V - CONCLUSIONS AND IMPLICATIONS

An increasing number of handicapped students graduate from high schools every year. Many of these students enter the work force due to economic need. The education received by these students should encourage them to seek occupations that were formerly considered beyond a handicapped person's potential. One of the greatest barriers to equality in the area of employment, is the stereotyping which persists against the handicapped. The present study examines the effect of a career education class provided at the beginning of the high school experience for mildly handicapped special education students.

RESTATEMENT OF THE PROBLEM

The purpose of this study was to investigate the effectiveness of a course of study to provide a career education class at the beginning of the high school experience for mildly handicapped special education students, in Tacoma Public Schools.

Changes in career and vocational interests resulting from interaction between students and a planned curriculum in the career education class was developed. The Career Assessment Inventory (CAI) was given as a pretest/posttest to measure change of interests.

THE DEPENDENT VARIABLE

The dependent variable for this study was the student's adjusted scores on the Career Assessment Inventory. The Administrative Indices and General Themes were utilized as the primary score for analysis.

TREATMENT

The treatment for the study was a tri-level career education program composed of eighteen (18) weeks of instruction. The design was developed through the Office of Superintendent of Public Instruction funded 1984-85 Technical Assistance Project, University of Washington with the cooperation of the Tacoma School District.

This trifurcated program was developed to teach mildly handicapped students, grades 10-12 to use personal effectiveness techniques, activities to improve their self-esteem, behavioral control, values clarification, and goal setting skills. Vocational assessment can assist students in becoming aware of their vocation strengths and weaknesses and better understand types of tasks common to various occupational clusters. Through training in job seeking and retention, students gain confidence in approaching employers about a position for which they are qualified given their performance during work sampling.

CONCLUSIONS

Based on the results of the data using a multivariate repeated measures analysis, there appeared to be little evidence that the treatment had a significant effect on student's mean scores for the four (4) Administrative Indices or the six (6) General Theme scales.

T-tests and univariate F-tests were used as follow-up tests on each dependent variable to check for differences among the individual variables.

Two exceptions were discerned when analyzing data from the follow-up tests. First, the Fine Arts-Mechanical Index, which measures how students responded to aesthetic and mechanical items, showed significant mean score differences ($F=5.3$, $df=1$, 55 , $P<.05$). Secondly, and more important, the variability of Interest Index ($F=5.6$, $df=1$, 55 , $P<.05$) which indicates the diversity of a person's interest preferences, was found to be significantly different at the .05 - level.

Overall, the null hypothesis cannot be rejected when using the multivariate test. Based on the results of this research, it can be concluded that the interaction of the students with the treatment did not result in a significant change in students' measured interests. The conclusions and results for this study are similar with the findings of Tyler (1974) and Crites (1969), who agree that, usually, measured interests do not change significantly in most individuals once they reach adolescence.

Interpretation of the Administrative Indices mean scores (Ch. 4 - Table III) support research cited in this study concerning attitudes and interests of mildly handicapped students. For example the mean scores for the pretest and posttest of the Education Orientation Index were 20.1 and 18.3. According to Charles B. Johansson (1984), individuals who have scores of thirty (30) and lower share similar interests with adults who have not pursued any postsecondary education. As cited in Chapter One of this paper, in a 1984 survey of former special education students in Pierce County, Washington (Tacoma Public Schools), over 80% of the students surveyed have no involvement with post secondary schooling. Individuals who have scores in this range typically have a pervasive dislike or indifference to school course work and to the finer cultural interests and scientific activities.

THE IMPLICATIONS

Implications can be drawn from the review of past research and conclusions from this study even though significant changes did not occur when testing the two dependent variables. The following implications demonstrate a need for career education program for handicapped students.

1. This study and past research supports the premis that interests do not change significantly in most adolescents. However, interests can be affected by a re-education process as

suggested by Strong (1943). A career education course could assist handicapped students in looking toward their future and help clarify their educational needs.

2. According to (Ginzberg, 1951; Crites, 1969), most interest formation occurs prior to adolescence. Therefore, the earlier the career education program is begun, the more likely the program will be effective in influencing interests.
3. In the opinion of Kokaska and Brolin (1985), career education for the handicapped is everyone's responsibility, and it must be infused into school, home, and community settings. However, Kokaska and Brolin (1985) concur with the researcher of this paper that it is probably much easier to develop a separate course than adopt the infusion process.
4. Although research concerning career education aiding or hindering mainstreaming efforts is limited, it would appear that career education enhances the assimilation and achievement of handicapped students in that they learn best when instruction is related to the real world, hands-on experiences. The researcher agrees with the opinion of Kokaska and Brolin (1985) that career education is one vehicle by which successful mainstreaming can take place.

5. Career education curriculum needs school personnel to look at what is being done, ways that courses can be modified, materials added or eliminated, and teaching methods used. It requires a wholesale abandonment of present practices (Kokaska and Brolin 1985).
6. Although significant changes in measured interests did not occur during the treatment period, the impact on the future from the treatment experiences is unknown. Career choice is a process that is closely related to many complex factors.
7. Handicapped students may now have a wider spectrum from which they view their career possibilities of the future.

SUGGESTIONS FOR FURTHER STUDY

The following studies are suggested to provide further insight into the developmental processes mildly handicapped students use when making career choices.

1. A study to compare differences in career purposes of students having and functioning under different handicapping conditions. An aspect of this study could focus on the limitations the students set for themselves due to past educational experience.

2. A longitudinal study to determine the effects of a career education program related to increasing the number of handicapped students entering postsecondary programs.
3. A study to determine occupations that are most compatible with the interests of mildly handicapped students.
4. A study designed to measure attitudinal changes toward handicapped individuals in today's work force. An aspect of this study could focus on society's habit of stereotyping handicapped individuals.
5. A study to determine the differences between mildly handicapped students mainstreamed into a career education class and a career education class made up entirely of mildly handicapped students.

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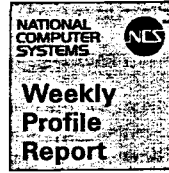
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APPENDICES

APPENDIX A
The Instrument



Career Assessment Inventory™

By Charles B. Johansson, Ph.D.

GRID DIRECTIONS: Print your name in the boxes; last name first — skip a box, then as much of your first name as possible. Then blacken the circle below each box which corresponds to the letter in the box. Blacken the blank circles below empty boxes. In a similar manner, fill in the grids for ID Number (optional), Sex and Age. Either Name or ID Number grid must be completed.

DIRECTIONS:

1. Use a soft, black lead pencil only and make a heavy, dark mark when filling in the circles.
 2. If you make a mistake or change your mind, please erase the mark fully and then fill in the correct circle.
 3. Fill in the grids according to the directions above.
 4. There is no time limit for completing the inventory, but it is best to work as rapidly as is comfortable for you.
 5. This is an inventory to measure your vocational interests and not a test of your abilities. By comparing your answers with satisfied workers in various occupations, it is possible to determine whether you would like certain occupations or not.
- The following pages list various activities, school subjects, and occupations, and you are asked to show your preferences for each. Your answers will be used to help find work and career areas that will be satisfying to you.

DO NOT WRITE IN THIS SPACE

046100

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

ID NUMBER	SEX	AGE
0	MALE	0
1		1
2	FEMALE	2
3		3
4		4
5		5
6		6
7		7
8		8
9		9

Part I — ACTIVITIES

Many activities are listed below. For each of them show your interest.

Blacken in the circle labeled "L" if you like the activity very much

Blacken in the circle labeled "I" if you like it a little or you like it somewhat

Blacken in the circle labeled "D" if you are indifferent or undecided or neutral

Blacken in the circle labeled "d" if you dislike it somewhat

Blacken in the circle labeled "D" if you dislike it very much

Show your interest for each type of activity. Just think about whether you would like it or dislike it, even though you may not have the training. Work fast. Make a heavy black mark for each item.

- 1 (L) (I) (T) (d) (D) Work with small hand tools
- 2 (L) (I) (T) (d) (D) Repair electrical wiring
- 3 (L) (I) (T) (d) (D) Work long hours
- 4 (L) (I) (T) (d) (D) Drive on long journeys
- 5 (L) (I) (T) (d) (D) Fix things around the house
- 6 (L) (I) (T) (d) (D) Work in the kitchen
- 7 (L) (I) (T) (d) (D) Do office work such as typing or filing
- 8 (L) (I) (T) (d) (D) Work in a hospital setting
- 9 (L) (I) (T) (d) (D) Operate a drill press
- 10 (L) (I) (T) (d) (D) Sell adding machines
- 11 (L) (I) (T) (d) (D) Write a novel
- 12 (L) (I) (T) (d) (D) Repair broken furniture
- 13 (L) (I) (T) (d) (D) Set type for a publication
- 14 (L) (I) (T) (d) (D) Plan meals
- 15 (L) (I) (T) (d) (D) Discuss politics
- 16 (L) (I) (T) (d) (D) Try new cooking recipes
- 17 (L) (I) (T) (d) (D) Sell clothes in a department store
- 18 (L) (I) (T) (d) (D) Type letters
- 19 (L) (I) (T) (d) (D) Change oil in an automobile
- 20 (L) (I) (T) (d) (D) Add numbers to get a total
- 21 (L) (I) (T) (d) (D) Repair electrical appliances
- 22 (L) (I) (T) (d) (D) Bake a cake
- 23 (L) (I) (T) (d) (D) Operate a printing press
- 24 (L) (I) (T) (d) (D) Go to a symphony/music concert
- 25 (L) (I) (T) (d) (D) Study first aid
- 26 (L) (I) (T) (d) (D) Fix a broken radio
- 27 (L) (I) (T) (d) (D) Take care of a pet
- 28 (L) (I) (T) (d) (D) Work in a hardware store
- 29 (L) (I) (T) (d) (D) Sell life insurance
- 30 (L) (I) (T) (d) (D) Adjust a carburetor
- 31 (L) (I) (T) (d) (D) Take pictures with a camera
- 32 (L) (I) (T) (d) (D) Teach children to read
- 33 (L) (I) (T) (d) (D) Plant your own garden
- 34 (L) (I) (T) (d) (D) Draw graphs and charts
- 35 (L) (I) (T) (d) (D) Interview people for a job
- 36 (L) (I) (T) (d) (D) Help campaign for a politician
- 37 (L) (I) (T) (d) (D) Repair adding machines
- 38 (L) (I) (T) (d) (D) Sell merchandise by traveling from place to place
- 39 (L) (I) (T) (d) (D) Wait on tables in a restaurant
- 40 (L) (I) (T) (d) (D) Make things out of wood
- 41 (L) (I) (T) (d) (D) Direct a children's play
- 42 (L) (I) (T) (d) (D) Wash and wax floors
- 43 (L) (I) (T) (d) (D) Sort mail in a post office
- 44 (L) (I) (T) (d) (D) Drill in a military company
- 45 (L) (I) (T) (d) (D) Read science fiction stories
- 46 (L) (I) (T) (d) (D) Take photographs of wildlife
- 47 (L) (I) (T) (d) (D) Go canoeing
- 48 (L) (I) (T) (d) (D) Operate office machines (typewriters, adding machines)
- 49 (L) (I) (T) (d) (D) Play chess
- 50 (L) (I) (T) (d) (D) Repair antiques
- 51 (L) (I) (T) (d) (D) Keep a budget
- 52 (L) (I) (T) (d) (D) Do cross-word puzzles
- 53 (L) (I) (T) (d) (D) Take care of children
- 54 (L) (I) (T) (d) (D) Make new friends
- 55 (L) (I) (T) (d) (D) Fix a clogged sink
- 56 (L) (I) (T) (d) (D) Plan a social affair for a religious group
- 57 (L) (I) (T) (d) (D) Entertain people in your home
- 58 (L) (I) (T) (d) (D) Work a cash register
- 59 (L) (I) (T) (d) (D) Tell stories to children
- 60 (L) (I) (T) (d) (D) Work at a desk
- 61 (L) (I) (T) (d) (D) Read popular mechanics magazines
- 62 (L) (I) (T) (d) (D) Travel to new places
- 63 (L) (I) (T) (d) (D) Grow flowers
- 64 (L) (I) (T) (d) (D) Give directions to a visitor who is lost
- 65 (L) (I) (T) (d) (D) Prepare dinner for guests
- 66 (L) (I) (T) (d) (D) Visit art galleries
- 67 (L) (I) (T) (d) (D) Play a musical instrument
- 68 (L) (I) (T) (d) (D) Plan the repainting of a room
- 69 (L) (I) (T) (d) (D) Work with a group on a project
- 70 (L) (I) (T) (d) (D) Prepare advertisements for a social event
- 71 (L) (I) (T) (d) (D) Do babysitting
- 72 (L) (I) (T) (d) (D) Be a guide for visitors
- 73 (L) (I) (T) (d) (D) Fix broken toys
- 74 (L) (I) (T) (d) (D) Work in an office
- 75 (L) (I) (T) (d) (D) Work out-of-doors
- 76 (L) (I) (T) (d) (D) Improve the health of others
- 77 (L) (I) (T) (d) (D) Attend a fashion show
- 78 (L) (I) (T) (d) (D) Pay attention to the latest hair styling

Part III — OCCUPATIONS

For each occupation listed below, show whether or not you would like that kind of work. Do not think about the salary, or whether you would be good at the job, but whether you would like or dislike that type of work.

- 195 (L) (I) (D) (D) Be an Actor/Actress
- 196 (L) (I) (D) (D) Be an Airline Steward/Stewardess
- 197 (L) (I) (I) (D) Be an Apartment Manager
- 198 (L) (I) (I) (D) Be an Architect
- 199 (L) (I) (I) (D) Be an Art Dealer
- 200 (L) (I) (I) (D) Be an Auto Racer
- 201 (L) (I) (I) (D) Be a Bank Cashier
- 202 (L) (I) (I) (D) Be a Bartender
- 203 (L) (I) (I) (D) Be a Barber
- 204 (L) (I) (I) (D) Be a Bill Collector
- 205 (L) (I) (I) (D) Be a Biologist
- 206 (L) (I) (I) (D) Be a Bookkeeper
- 207 (L) (I) (I) (D) Be a Bricklayer
- 208 (L) (I) (I) (D) Be a Bus Driver
- 209 (L) (I) (I) (D) Be a Butcher
- 210 (L) (I) (I) (D) Be a Cabinet Maker
- 211 (L) (I) (I) (D) Be a Camp Counselor
- 212 (L) (I) (I) (D) Be a Carpenter
- 213 (L) (I) (I) (D) Be a Cartoonist
- 214 (L) (I) (I) (D) Be a Cattle Rancher
- 215 (L) (I) (I) (D) Be a Cement Mason (smooths fresh concrete)
- 216 (L) (I) (I) (D) Be a Check-out Clerk in a Store
- 217 (L) (I) (I) (D) Be a Director of Religious Choir
- 218 (L) (I) (I) (D) Be a Circus Performer
- 219 (L) (I) (I) (D) Be a Comedian
- 220 (L) (I) (I) (D) Be a Computer Operator
- 221 (L) (I) (I) (D) Be a Construction Worker
- 222 (L) (I) (I) (D) Be a Cook in a Restaurant
- 223 (L) (I) (I) (D) Be a Courtroom Reporter
- 224 (L) (I) (I) (D) Be a Delivery Truck Driver
- 225 (L) (I) (I) (D) Be a Dog Trainer
- 226 (L) (I) (I) (D) Be a Driving Instructor
- 227 (L) (I) (I) (D) Be an Electrician
- 228 (L) (I) (I) (D) Be an Elementary School Teacher
- 229 (L) (I) (I) (D) Be a Farmer
- 230 (L) (I) (I) (D) Be a Fashion Designer
- 231 (L) (I) (I) (D) Be a Fashion Model
- 232 (L) (I) (I) (D) Be a Filing Clerk

- 233 (L) (I) (I) (D) Be a Firefighter
- 234 (L) (I) (I) (D) Be a Fish and Game Warden
- 235 (L) (I) (I) (D) Be a Florist
- 236 (L) (I) (I) (D) Be a Wildlife Manager
- 237 (L) (I) (I) (D) Be a Forest Ranger
- 238 (L) (I) (I) (D) Be a Funeral Director
- 239 (L) (I) (I) (D) Be a Gas Station Attendant
- 240 (L) (I) (I) (D) Be a Hair Stylist
- 241 (L) (I) (I) (D) Be a Heavy Equipment Operator (bulldozer, crane, earth mover)
- 242 (L) (I) (I) (D) Be a High School Counselor
- 243 (L) (I) (I) (D) Be a High School Teacher
- 244 (L) (I) (I) (D) Be a Hospital Orderly
- 245 (L) (I) (I) (D) Be a Hospital Records Clerk
- 246 (L) (I) (I) (D) Be a Hotel Manager
- 247 (L) (I) (I) (D) Be a House Painter
- 248 (L) (I) (I) (D) Be a Telephone Operator
- 249 (L) (I) (I) (D) Be an Interior Decorator
- 250 (L) (I) (I) (D) Be a Janitor/Janitress
- 251 (L) (I) (I) (D) Be a Jeweler
- 252 (L) (I) (I) (D) Be a Labor Union Leader
- 253 (L) (I) (I) (D) Be a Legal Secretary
- 254 (L) (I) (I) (D) Be a Library Clerk
- 255 (L) (I) (I) (D) Be a Life Insurance Salesperson
- 256 (L) (I) (I) (D) Be a Logger (lumberjack)
- 257 (L) (I) (I) (D) Be a Magician
- 258 (L) (I) (I) (D) Be a Mail Carrier
- 259 (L) (I) (I) (D) Be a Manager of a Pet Shop
- 260 (L) (I) (I) (D) Be a Marriage Counselor
- 261 (L) (I) (I) (D) Be a Mechanic
- 262 (L) (I) (I) (D) Be a Medical Technician
- 263 (L) (I) (I) (D) Be a Military Officer
- 264 (L) (I) (I) (D) Be a Minister, Priest, or Religious Leader
- 265 (L) (I) (I) (D) Be a Missionary/Religious Ambassador
- 266 (L) (I) (I) (D) Be a Movie Projector Operator
- 267 (L) (I) (I) (D) Be a Musician
- 268 (L) (I) (I) (D) Be a Newspaper Reporter
- 269 (L) (I) (I) (D) Be a Nurse
- 270 (L) (I) (I) (D) Be a Nursery School Helper
- 271 (L) (I) (I) (D) Be a Nurse's Aide
- 272 (L) (I) (I) (D) Be a Photographer
- 273 (L) (I) (I) (D) Be a Playground Director
- 274 (L) (I) (I) (D) Be a Plumber
- 275 (L) (I) (I) (D) Be a Police Officer
- 276 (L) (I) (I) (D) Be a Post Office Clerk
- 277 (L) (I) (I) (D) Be a Printer

- 278 (L) (I) (I) (D) Be a Private Detective
- 279 (L) (I) (I) (D) Be a Private Secretary
- 280 (L) (I) (I) (D) Be a Radio/TV Announcer
- 281 (L) (I) (I) (D) Be a Railroad Engineer
- 282 (L) (I) (I) (D) Be a Real Estate Salesperson
- 283 (L) (I) (I) (D) Be a Receptionist in an Office
- 284 (L) (I) (I) (D) Be a Recreation Leader
- 285 (L) (I) (I) (D) Be a Security Guard
- 286 (L) (I) (I) (D) Be a Scout Troop Leader
- 287 (L) (I) (I) (D) Be a Sculptor
- 288 (L) (I) (I) (D) Be a Security Guard
- 289 (L) (I) (I) (D) Be a Sheet Metal Worker
- 290 (L) (I) (I) (D) Be a Short Order Cook
- 291 (L) (I) (I) (D) Be a Social Worker
- 292 (L) (I) (I) (D) Be a Stage Manager
- 293 (L) (I) (I) (D) Be a Stenographer (takes shorthand)
- 294 (L) (I) (I) (D) Be a Stock Room Clerk
- 295 (L) (I) (I) (D) Be a Supervisor
- 296 (L) (I) (I) (D) Be a Taxi-cab Driver
- 297 (L) (I) (I) (D) Be a Teacher's Aide
- 298 (L) (I) (I) (D) Be a Ticket Agent
- 299 (L) (I) (I) (D) Be a Tour Guide
- 300 (L) (I) (I) (D) Be a Travel Bureau Agent
- 301 (L) (I) (I) (D) Be a Truck Driver
- 302 (L) (I) (I) (D) Be a Waiter/Waitress
- 303 (L) (I) (I) (D) Be a Welder
- 304 (L) (I) (I) (D) Be a Veterinarian Assistant
- 305 (L) (I) (I) (D) Be a Zoo Attendant

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APPENDIX B

Tables of Handicapping Conditions

Characteristics of Major Disabilities Table 2.3

Disability	Classifications	Prevalence (% General Population)	Some Major Causes	Vocational Potential
Mental retardation	Mild, moderate, severe, profound	3%; the mildly retarded (89%) is the predominant group	Primarily cultural-familial, cultural-familial or organic, primarily organic, organic	Ranges from good for the mildly retarded to poor for severe/profound.
Mental/emotional/behavioral disorders	Neurosis, psychosis, including depressive, manic-depressive, schizophrenic	2-3% have serious mental disabilities.	Heredity, chemical imbalance, trauma, environmental stress	Depends on multitude of factors including family, employer, and mental health support.
Spinal cord injury/paralysis	Monoplegia, hemiplegia, triplegia, quadriplegia, paraplegia	About .5% (one million, or one of every 200 persons)	Diseases, accidents, birth injuries, strokes, tumor pressure, etc.	Ranges from good to poor, depending on psychological adjustment.
Cerebral palsy	Spasticity, athetosis, ataxia, rigidity	Somewhat less than .5%	Brain injury (main cause), or from anoxia, RH factor, prematurity, or infection	Depends on the extent of the disability and on opportunities.
Epilepsy	Grand mal, Jacksonian, petit mal, psychomotor	About .5%	Heredity, congenital defect, tumors, infections, etc.	Depends on frequency, medications, and other factors.
Visual impairment	Legally blind (can see with corrections), totally blind	About .25% (one-half million)	Glaucoma, diabetes, cataracts, accidents, prenatal conditions	Generally good; depends on factors such as intelligence, education, mobility, personality, and opportunity.
Hearing impairment	Conductive, sensory-neural, central impairment	8½ million have significant loss; up to ½ million are deaf.	Prenatal rubella, RH factor, prematurity, heredity, accidents	Good; depends on same factors as visually impaired, and good communication skills.
Learning disability	Depends on specific deficit, e.g., perceptual-motor; disorders of attention; disorders of memory and thinking; academic	2-3%	Brain damage, genetic variations, chemical imbalance, poor nutrition, unknown etiology	Depends on severity of the disability and remedial efforts—ranges from good to poor.

TABLE 1.1
Incidence level of various types of handicaps.

Handicapping Condition	Incidence (percentage of school-age population)
Speech impaired	3.5
Mentally retarded	2.3
Learning disabled	3.0
Emotionally disturbed	2.0
Orthopedically impaired	0.5
Deaf	0.075
Hard of hearing	0.5
Visually handicapped	0.1
Other health impaired	0.06
Total	12.035

Source: Halloran, W. E. Handicapped persons: Who are they? *American Vocational Journal*, 1978, 53(1), 30-31.

APPENDIX C
Legal Definitions
of
Handicapping Conditions

(1) The student does not have a handicapping condition(s); or

(2) The student does have a handicapping condition(s) and is in need of special education and related services.

The school district superintendent or his or her designee shall duly record in writing the decision as to the handicapping condition(s) of a student brought to the school's attention. Whatever decision is made, the information from the procedures for making the determination shall be filed in school district records. Within ten calendar days of the decision that the student does not have a handicapping condition, the parents or legal guardian of the student shall be informed in writing of the assessment findings in compliance with notice requirements of WAC 392-171-521. If the decision is that the student has a handicapping condition(s), the school district shall request the parent(s) to participate in the IEP conference (individualized education program) pursuant to WAC 392-171-456. Upon the request of the parent (or the adult student) the school district shall provide the parent (or the adult student) a copy of the summary analysis prior to the IEP meeting: *Provided*, That the parent (or the adult student) may request a meeting with the school district to explain the summary analysis. [Statutory Authority: RCW 28A.13.070(7), 80-11-054 (Order 80-31), § 392-171-376, filed 8/19/80.]

ELIGIBILITY CRITERIA FOR HANDICAPPED STUDENTS

WAC 392-171-381 Definition and eligibility criteria for developmentally handicapped. Definition and eligibility criteria for developmentally handicapped are as follows:

(1) As used in this chapter, the term "developmentally handicapped" shall mean children under the age of eligibility to the first grade who meet the definition and eligibility criteria for one of the following:

- (a) WAC 392-171-382, Developmentally delayed;
- (b) WAC 392-171-396, Orthopedically impaired;
- (c) WAC 392-171-401, Health impaired;
- (d) WAC 392-171-436, Deaf;
- (e) WAC 392-171-441, Hard of hearing;
- (f) WAC 392-171-446, Visually handicapped; and
- (g) WAC 392-171-451, Deaf-blind;

(2) The term "developmentally handicapped" does not include children under the age of eligibility for entry to the first grade who qualify solely for communications disorder services under WAC 392-171-391. [Statutory Authority: RCW 28A.13.070(7), 84-14-036 (Order 84-19), § 392-171-381, filed 6/28/84; 80-11-054 (Order 80-31), § 392-171-381, filed 8/19/80.]

WAC 392-171-382 Definition and eligibility criteria for developmentally delayed. Definition and eligibility criteria for developmentally delayed are as follows:

(1) Developmentally delayed, birth to three years. As used in this chapter, the term "developmentally delayed,

birth to three years" shall mean those children under three years of age who demonstrate a 1.5 standard deviation or twenty-five percent delay in the developmental delay area of cognitive (WAC 392-171-383(1)), communication (WAC 392-171-383(2)), fine motor (WAC 392-171-383(3)), gross motor (WAC 392-171-383(4)), or motor which for the purpose of this section shall be a combined delay area of fine motor (WAC 392-171-383(3)) and gross motor (WAC 392-171-383(4)). Such children in order to continue to be eligible for special education and related services after reaching three years of age shall meet the entry eligibility criteria for developmentally delayed, three to six years or one of the other eligibility criteria specified in WAC 392-171-381;

(2) Developmentally delayed, three to six years. As used in this chapter, the term "developmentally delayed, three to six years" shall mean those children between three years and the age of eligibility for entry to the first grade who receive a score on a standardized norm referenced test, with a test-retest or split-half reliability of .80 that is at least:

(a) Two standard deviations below the mean in one or more of the five developmental delay areas defined in WAC 392-171-383; or

(b) One and one-half standard deviations below the mean in two or more of the five developmental delay areas defined in WAC 392-171-383. [Statutory Authority: RCW 28A.13.070(7), 84-14-036 (Order 84-19), § 392-171-382, filed 6/28/84.]

WAC 392-171-383 Areas of developmental delay—Definitions. The five developmental delay areas for the purpose of applying eligibility criteria to developmentally delayed children are:

(1) Cognitive: Comprehending, remembering, and making sense out of one's experience. Cognitive ability is the ability to think and is often thought of in terms of intelligence;

(2) Communication: The ability to effectively use or understand, age-appropriate language, including vocabulary, grammar, and speech sounds;

(3) Fine motor: Motor skills requiring precise, coordinated use of the small muscles;

(4) Gross motor: Motor skills used for body control such as standing, walking, balance and climbing; and

(5) Social/emotional: The ability to develop and maintain functional interpersonal relationships and to exhibit age appropriate social and emotional behaviors. [Statutory Authority: RCW 28A.13.070(7), 84-14-036 (Order 84-19), § 392-171-383, filed 6/28/84.]

WAC 392-171-384 Distinction between developmentally handicapped and communication disorder—Reassessment of developmentally delayed upon entry to first grade. (1) Except for children who qualify solely for communications disorder services under WAC 392-171-391, children under the age of eligibility for entry to first grade, in order to be eligible for special education and related services, shall meet the eligibility criteria for one of the handicapping conditions specified in WAC 392-171-381.

(2) Children under the age of eligibility to first grade, who qualify for special education as developmentally delayed under WAC 392-171-382 shall not qualify for special education and related services upon entry to first grade until a reassessment is conducted and a determination is made that the student qualifies under the provisions of one of the other handicapping conditions in this chapter. [Statutory Authority: RCW 28A.13.070(7). 84-14-036 (Order 84-19), § 392-171-384, filed 6/28/84.]

WAC 392-171-386 Definition and eligibility criteria for seriously behaviorally disabled. (1) Seriously behaviorally disabled students are those who exhibit one or more of the following characteristics over a long period of time and to a marked degree, which adversely affects their own educational performance:

- (a) An inability to learn which cannot be explained by intellectual, sensory, or health factors;
- (b) An inability to build or maintain satisfactory interpersonal relationships with peers and teachers;
- (c) Inappropriate types of behavior or feelings under normal circumstances;
- (d) A general pervasive mood of unhappiness or depression; or
- (e) A tendency to develop physical symptoms or fears associated with personal or school problems.

(2) The term includes students who are schizophrenic. The term does not include students who are socially maladjusted, unless it is determined that they are also seriously behaviorally disabled. Students whose primary disability is identified in another handicapping category do not qualify as seriously behaviorally disabled.

(3) All students considered for initial placement in special education as seriously behaviorally disabled shall be assessed by a multidisciplinary team including at least one school psychologist or school social worker and determined as eligible for special education and related services according to the following:

(a) A current school district evaluation which concludes that the student has a serious behavioral disability and which considers and describes the student's social and emotional behaviors and provides any implications for educational planning.

(b) For the purposes of establishing that the student has a behavioral disability, the evaluation shall describe behaviors which distinguish between common disciplinary problem behaviors and serious behavioral disabilities. Common disciplinary problem behaviors (e.g., truancy, smoking, breaking school conduct rules) may exist in conjunction with serious behavioral disabilities, but cannot be used as the sole criteria for recommending special education and related services.

The evaluation shall include:

(i) Dated and signed documented anecdotal records of behavioral observations made by two or more persons at separate times and places, each of which cite and corroborate specific behaviors which, in the aggregate, provide foundation for probable concern for serious behavioral disability. Multiple settings are required (e.g.,

in addition to the classroom setting consider playground, cafeteria, school bus, hallway, etc.); and

(ii) Dated and signed documented evidence of at least two intervention techniques that have been tried and the effect of each. These interventions may include, but are not limited to, changes in student's regular class schedule, curriculum, and/or teacher, school counseling, community agency therapy, or counseling; and

(iii) A social or developmental history compiled directly from the parent(s) and/or records, when parents are not available.

(c) Current assessment of level of academic or cognitive achievement as measured by standardized tests appropriate to age level and administered individually.

(d) A current vision and hearing screening report.

(e) In the event that the required academic assessment and vision and hearing screening are completed and there are documented and dated anecdotal records of behavioral observations showing that the student's disability is evident in the school environment, the following evaluation reports may be substituted for the school district's evaluation:

(i) A current psychiatric evaluation which considers and describes the student's social and emotional behaviors, which concludes and describes a serious behavioral disability and where implications for educational planning are provided. The multidisciplinary team shall consider these implications in planning and implementing the student's educational program; or

(ii) A current psychological evaluation by a nonpublic school mental health professional who holds a graduate degree in a recognized mental health specialty that considers and describes the student's social and emotional behaviors, which concludes that the student has a serious behavioral disability, the consequences of which entail the necessity for active, on-going therapy and/or counseling, and where implications for educational planning are provided. The multidisciplinary team shall consider these implications in planning and implementing the student's educational program. [Statutory Authority: RCW 28A.13.070(7). 84-14-036 (Order 84-19), § 392-171-386, filed 6/28/84; 83-08-029 (Order 83-1), § 392-171-386, filed 3/30/83; 80-11-054 (Order 80-31), § 392-171-386, filed 8/19/80.]

WAC 392-171-391 Definition and eligibility criteria for communication disordered. A student shall be considered to have a communication disorder if there is present a documented communication disorder such as stuttering, voice disorder, language impairment, and/or impaired articulation which adversely affects a student's educational performance. The assessment procedures and eligibility standards outlined in this section apply to those students whose only handicapping condition is a communication disorder.

All students considered for initial placement in special education as communication disordered shall be assessed and determined eligible for special education and related services according to the following:

- (1) A current hearing screening report;

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(2) A current description of the level of educational or cognitive development as provided by the classroom teacher, or where available, by standardized tests in those areas affected by the speech and/or communication problem(s) including discussion of the existing or potential impact of the problem(s) on educational performance; and

(3) A current assessment of the level of speech and/or language development as measured by standardized tests or professionally recognized procedures, scales, or checklists appropriate to the student's age level and mode of communication, individually administered, and which considers the student's sex, dialect norms, social-cultural environment, and behaviors: *Provided*, That for children under the age of eligibility for entry to the first grade the assessment shall include development acquisition of speech and language. Such measures shall result in one or more of the following findings that the student:

(a) Achieves a rating of moderate or severe on a standardized articulation test that yields a severity rating and/or misarticulates in comparison to developmental norms five or more unrelated phonemes each in two or more positions (initial, medial, or final) for children under the age of eligibility for entry to the first grade, three or more unrelated phonemes for students age six through age seven, or one or more for students over age seven, with consideration given to the student's speech intelligibility, physical ability, and/or therapy history.

(b) Has a delay in receptive and/or expressive language such that functioning is one year or more below chronological age for students up through age eight or functioning is two-thirds of chronological age or below for students over age eight.

(c) Has interruptions or dysfluencies in more than one speaking situation such as repetitions, prolongations, blockage in flow of speech, struggle, or avoidance behaviors which interfere with communication or are inconsistent with age or development.

(d) Has a deviation in voice quality, pitch, or loudness characterized by abusive vocal habits, or interference with communication, or is inconsistent with age or development, or demonstrates chronic hoarseness of duration of three weeks or more.

Whenever appropriate, referral for medical and/or psychological and/or other evaluations shall be made and the results considered in the assessment of the student's suspected handicapping condition. [Statutory Authority: RCW 28A.13.070(7). 84-14-036 (Order 84-19), § 392-171-391, filed 6/28/84; 80-11-054 (Order 80-31), § 392-171-391, filed 8/19/80.]

WAC 392-171-396 Definition and eligibility criteria for orthopedically impaired. Orthopedically impaired students are those who lack normal function of muscles, joints or bones due to congenital anomaly, disease or permanent injury, and such condition adversely affects their educational performance.

All students considered for initial placement in special education as orthopedically impaired shall be assessed and determined eligible for special education and related services according to the following:

(1) A current medical evaluation by a qualified medical practitioner which describes and confirms the student's health circumstances and which provides any medical implications for educational planning;

(2) Current assessment of level of academic achievement as measured by standardized tests appropriate to age level and administered individually;

(3) A current evaluation which considers and describes the student's social and emotional behaviors and which provides any implications for educational planning, including an evaluation of adaptive behavior as measured by standardized instrument(s) or professionally recognized scales where there are no known standardized measures, which addresses the student's self-help and interpersonal communication skills in relation to chronological age/grade peers;

(4) A current physical therapy and/or occupational therapy evaluation which considers and describes implications for therapy as a part of educational planning; and

(5) A current vision and hearing screening report. [Statutory Authority: RCW 28A.13.070(7). 80-11-054 (Order 80-31), § 392-171-396, filed 8/19/80.]

WAC 392-171-401 Definition and eligibility criteria for health impaired. Health impaired students are those who have chronic or acute health problems—such as students with serious congenital heart defect, other congenital syndrome(s), other disorders of the cardiorespiratory systems, disorders of the central nervous system including epilepsy or neurological impairment, autism or other profound health circumstances or degenerative condition(s)—which adversely affect or with a high degree of professional certainty will affect their educational performance.

All students considered for initial placement in special education as health impaired shall be assessed and determined eligible for special education and related services according to the following:

(1) A current medical evaluation by a qualified medical practitioner which describes and confirms the student's health circumstances and which provides any medical implications for educational planning;

(2) Current assessment of level of academic achievement as measured by standardized tests appropriate to age level and administered individually;

(3) A current evaluation which considers and describes the student's social and emotional behaviors and which provides any implications for educational planning which may include an evaluation of adaptive behaviors as measured by standardized instrument(s) or professionally recognized scales addressing the student's self-help and interpersonal communication skills in relation to chronological age/grade peers; and

(4) A current vision and hearing screening report. [Statutory Authority: RCW 28A.13.070(7). 84-14-036 (Order 84-19), § 392-171-401, filed 6/28/84; 83-08-029 (Order 83-1), § 392-171-401, filed 3/30/83; 80-11-054 (Order 80-31), § 392-171-401, filed 8/19/80.]

WAC 392-171-406 Specific learning disability—

Definition. Specific learning disability is a disorder in one or more of the basic psychological processes involved in understanding or using spoken or written language. Such disorder may include problems in visual and auditory perception and integration and may manifest itself in an impaired ability to think, speak or communicate clearly, read with comprehension, write legibly and with meaning, and to accurately perform mathematical calculations, including those involving reading. Spelling shall not stand alone as a qualifying academic achievement area. The presence of a specific learning disability is indicated by intellectual functioning above that specified in this chapter for eligibility as mentally retarded and by a severe discrepancy between the student's intellectual ability and academic achievement in one or more of the following areas:

- (1) Oral expression;
- (2) Listening comprehension;
- (3) Written expression;
- (4) Basic reading skill;
- (5) Reading comprehension;
- (6) Mathematics calculations; and
- (7) Mathematics reasoning;

Provided, That such a performance deficit cannot be explained by visual or hearing problems, motor handicaps, mental retardation, behavioral disability, or environmental, cultural, or economic factors.

A specific learning disability includes conditions described as perceptual handicap, minimal brain dysfunction, dyslexia, and developmental aphasia: *Provided,* That the student meets the eligibility criteria set forth in WAC 392-171-411, including documentation of severe discrepancy as required by WAC 392-171-413 and 392-171-418. [Statutory Authority: RCW 28A.13.070(7), 84-14-036 (Order 84-19), § 392-171-406, filed 6/28/84; 80-11-054 (Order 80-31), § 392-171-406, filed 8/19/80. Formerly WAC 392-171-350. Statutory Authority: RCW 28A.13.010 and 28A.13.070(7), 79-12-008 (Order 12-79), § 392-171-350, filed 11/9/79, effective 1/1/80; 78-11-074 (Order 11-78), § 392-171-350, filed 10/31/78.]

WAC 392-171-411 Specific learning disability—
Assessment procedures and eligibility criteria. Assessment procedures and eligibility standards: All students considered for initial placement in special education as specific learning disabled shall be assessed and determined eligible for special education and related services according to the following:

- (1) A current assessment of sufficient scope to rule out eligibility for any other handicapping condition and to rule out environmental, cultural, or economic factors as an explanation for the specific academic problem;
- (2) A current vision and hearing screening report shall be obtained and shall be of sufficient scope to rule out vision or hearing acuity as an explanation for the specific academic problem;
- (3) A written record of observation of the student's learning behaviors in the regular education program and

the relationships of these behaviors to the specific academic problem shall be completed by a member of the assessment team other than the student's regular education teacher; and

(4) Written documentation that the student has an academic achievement problem in the regular education program shall be available. Such documentation shall include, if applicable, previous intervention attempts and the results obtained. Examples of data used for documentation may include:

- (a) Student performance on daily classroom work and/or criterion-referenced tests;
- (b) Summary of past student performance;
- (c) Group test results;
- (d) Teacher observation and judgments; and
- (e) Performance on student learning objectives.

(5) Documentation of the existence of a severe discrepancy between the student's intellectual ability and academic achievement in one or more of the seven areas specified in WAC 392-171-406 shall be recorded. Such documentation shall conform to the requirements of WAC 392-171-413 or 392-171-418, whichever is applicable.

(6) Tests used to assess the student's intellectual ability and academic achievement shall be:

- (a) Current;
- (b) Reliable as demonstrated by a reliability coefficient of .85 or above;
- (c) Normed on representative national samples;
- (d) Selected and administered in accordance with the general requirements of WAC 392-171-351; and
- (e) Individually administered and interpreted by a qualified person (defined in WAC 392-171-351) in accordance with the standardized procedures described in the test manuals. [Statutory Authority: RCW 28A.13.070(7), 84-14-036 (Order 84-19), § 392-171-411, filed 6/28/84; 80-11-054 (Order 80-31), § 392-171-411, filed 8/19/80. Formerly WAC 392-171-355. Statutory Authority: RCW 28A.13.010 and 28A.13.070(7), 79-12-008 (Order 12-79), § 392-171-355, filed 11/9/79, effective 1/1/80; 78-11-074 (Order 11-78), § 392-171-355, filed 10/31/78.]

WAC 392-171-412 Discrepancy tables for determining severe discrepancy under WAC 392-171-413. The superintendent of public instruction shall develop and publish discrepancy tables for the purpose of determining a severe discrepancy between intellectual ability and academic achievement pursuant to WAC 392-171-413. Such tables shall be developed on the basis of a regressed standard score discrepancy method which shall consider the following variables:

- (1) The reliability coefficient of the intellectual ability test;
- (2) The reliability coefficient of the academic achievement test; and
- (3) An appropriate correlation between the intellectual ability and the academic achievement tests.

The regressed standard score discrepancy method shall be applied at a criterion level of 1.55. [Statutory

Authority: RCW 28A.13.070(7). 84-14-036 (Order 84-19), § 392-171-412, filed 6/28/84.]

WAC 392-171-413 Method for documenting severe discrepancy--Grades one and above. (1) For students in grades one and above, a severe discrepancy shall be determined and documented from tables developed pursuant to WAC 392-171-412.

(2) For the purposes of applying the severe discrepancy tables, the following scores shall be used:

(a) A total or full scale intellectual ability score; and

(b) An academic achievement test score which can be converted into a standard score with a mean of one hundred and a standard deviation of fifteen.

(c) A severe discrepancy between the student's intellectual ability and academic achievement in one or more of the seven areas provided for in WAC 392-171-406 shall be determined by applying the regressed standard score discrepancy method to the obtained intellectual ability and achievement test scores using the tables referenced above: *Provided*, That where the assessment results do not appear to accurately represent the student's intellectual ability and where the discrepancy between the student's intellectual ability and academic achievement does not initially appear to be severe upon application of the discrepancy tables, WAC 392-171-412, the multidisciplinary team shall apply professional judgment in order to determine the presence of a severe discrepancy. In this event, the multidisciplinary team shall document in writing a narrative explanation as to why the student has a severe discrepancy. The multidisciplinary team must provide supportive evidence, including the procedures used to determine that a severe discrepancy exists between the student's intellectual ability and academic achievement: *Provided further*, That if the prohibition against the use of specific tests or test results as provided in WAC 392-171-351(4) shall preclude the use of any of the tests referenced above, the multidisciplinary team shall document in a written narrative the basis upon which the members decided that there exists a severe discrepancy between intellectual ability and achievement. [Statutory Authority: RCW 28A.13.070(7). 84-14-036 (Order 84-19), § 392-171-413, filed 6/28/84.]

WAC 392-171-418 Additional method for documenting severe discrepancy--Grades seven and above. For a student in grades seven and above not found eligible under WAC 392-171-413 as a specific learning disabled student, the existence of a severe discrepancy between that student's intellectual ability and academic achievement shall be determined and documented as follows:

(1) An intellectual ability test shall be administered.

(2) An academic achievement test in one or more of the seven areas described in WAC 392-171-406 shall be administered.

(3) The student's chronological age/grade (CAG) performance in one or more of the academic achievement areas provided for in the definition shall be adjusted for expectations due to variance in intellectual

functioning. The expected performance adjusted for intellectual functioning shall then be compared to the results of the actual achievement measures, the results of which must yield:

(a) A functioning level of two-thirds or below of expected performance; and

(b) A functioning level below chronological age/grade.

(4) If the results of the above comparison for a particular student indicate a functioning level of two-thirds or below of expected performance and a functioning level below chronological age/grade level in one or more of the seven areas described in WAC 392-171-406, a severe discrepancy has been documented. [Statutory Authority: RCW 28A.13.070(7). 84-14-036 (Order 84-19), § 392-171-418, filed 6/28/84.]

WAC 392-171-421 Definition and eligibility criteria for mental retardation. Mentally retarded students are those who demonstrate significantly subaverage general intellectual functioning existing concurrently with deficits in adaptive behavior and manifested during the developmental period, which adversely affects their educational performance.

(1) Assessment procedures. All students considered for initial placement in special education as mentally retarded shall be assessed and determined eligible for special education and related services according to the following:

(a) A current assessment of intellectual functioning obtained from a standardized individual test designed to measure intellectual functioning, individually administered by a qualified psychologist and interpreted and attested to as to validity by a qualified psychologist; and

(b) A current evaluation which considers and describes adaptive behavior as measured by standardized instrument(s), or professionally recognized scales where there are no known standardized measures, which discusses any implications for educational planning; and

(c) Current assessment of level of academic achievement as measured by standardized tests appropriate to age level and administered individually; and

(d) A developmental history compiled directly from the parent(s), or records, when parents are not available; and

(e) A current vision and hearing screening report.

(2) Eligibility standards. The measured level of functioning is to be classified as follows:

(a) Mild mental retardation. Intellectual functioning (IQ) range from approximately 51 through 75 and the following conditions:

(i) Academic functioning equal to three-fourths or less of chronological age/grade; and

(ii) Adaptive behavior equal to three-fourths or less chronological age/grade.

(b) Moderate mental retardation. Intellectual functioning (IQ) range from 30 to 50 and the following conditions:

(i) Academic functioning equal to one-half or less of chronological age/grade; and

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(ii) Adaptive behavior equal to one-half or less of chronological age/grade.

(c) Severe/profound mental retardation. Intellectual functioning (IQ) range under 30 and the following:

(i) Academic functioning equal to one-third or less of chronological age/grade; and

(ii) Adaptive behavior equal to one-third or less of chronological age/grade. [Statutory Authority: RCW 28A.13.070(7). 80-11-054 (Order 80-31), § 392-171-421, filed 8/19/80.]

WAC 392-171-431 Definition and eligibility criteria for multihandicapped. A student shall be considered multihandicapped when there are present and documented two or more handicapping conditions, each of which is so severe as to warrant a special program were that handicapping condition to appear in isolation, and the combination of which causes such severe educational problems that the student requires intensive programming cannot be accommodated in special education programs solely for one of the impairments. Students who are deaf-blind are not included as multihandicapped. (See WAC 392-171-451.) Students who are classified as specific learning disability in combination with another handicapping condition shall not be eligible to be counted for state funding purposes as multihandicapped.

Assessment procedures and eligibility standards: All students considered for initial placement in special education as multihandicapped shall be assessed and determined eligible for special education and related services according to the following:

(1) Assessment procedures for each handicapping condition have been followed, the results of which document eligibility for inclusion in special education were each handicap to appear in isolation; and

(2) Summary statements in the assessment analysis report document that the effect of the multiplicity of handicaps is so severe that the student cannot be accommodated in special education programs solely for one of the impairments. [Statutory Authority: RCW 28A.13.070(7). 84-14-036 (Order 84-19), § 392-171-431, filed 6/28/84; 80-11-054 (Order 80-31), § 392-171-431, filed 8/19/80. Formerly WAC 392-171-380. Statutory Authority: RCW 28A.13.010 and 28A.13.070(7). 78-11-074 (Order 11-78), § 392-171-380, filed 10/31/78.]

WAC 392-171-436 Definition and eligibility criteria for deaf. Deaf student are those students who have a documented hearing impairment which is so severe that the student is impaired in processing linguistic information through hearing, with or without amplification, which adversely affects educational performance.

All students considered for initial placement in special education as deaf shall be assessed and determined eligible for special education and related services according to the following:

(1) A current evaluation by a qualified audiologist which describes and confirms that the hearing impairment is so severe that student is impaired in processing linguistic information through hearing, with or without

amplification and which prevents the auditory channel from being the primary mode of learning speech and language and adversely affects educational performance;

(2) Current assessment of level of academic achievement as measured by standardized tests appropriate to age level and administered individually;

(3) A current evaluation which considers and describes the student's social and emotional behaviors and which provides any implications for educational planning;

(4) A current assessment of language development as measured by standardized tests or professionally recognized scales appropriate to age level and administered individually; and

(5) A current vision screening report. [Statutory Authority: RCW 28A.13.070(7). 80-11-054 (Order 80-31), § 392-171-436, filed 8/19/80.]

WAC 392-171-441 Definition and eligibility criteria for hard of hearing. Hard of hearing students are those students who have a hearing impairment, whether permanent or fluctuating, which adversely affects the student's educational performance.

All students considered for initial placement in special education as hard of hearing shall be assessed and determined eligible for special education and related services according to the following:

(1) A current evaluation by a qualified audiologist which describes and confirms that the student:

(a) Has an organic hearing loss in excess of 20 dB better ear average in the speech range (500, 1,000, 2,000 Hz), unaided; or

(b) Has a history of fluctuating hearing loss which has interrupted the normal acquisition of speech and language and continues to be a part of educational planning.

(2) A current assessment of level of academic achievement as measured by standardized tests appropriate to age level and administered individually.

(3) A current evaluation which describes and confirms the student's social and emotional behaviors and which provides any implications for educational planning.

(4) A current assessment of language development as measured by standardized tests or professionally recognized scales appropriate to age level and administered individually.

(5) A current vision screening report.

Each school district shall ensure that the hearing aids worn by deaf and hearing impaired students in school are functioning properly. [Statutory Authority: RCW 28A.13.070(7). 80-11-054 (Order 80-31), § 392-171-441, filed 8/19/80.]

WAC 392-171-446 Definition and eligibility criteria for visually handicapped. Visually handicapped students are those students who have a visual impairment which, even with correction, adversely affects the student's educational performance. The term includes both partially sighted and blind students.

All students considered for initial placement in special education as visually handicapped shall be assessed and

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determined eligible for special education and related services according to the following:

(1) A current evaluation by a qualified vision specialist or physician which describes and confirms that the student:

(a) Has visual acuity of 20/70 or less in the better eye with correction; or

(b) Has a field of vision which at its widest diameter subtends an angle of no greater than twenty degrees in the better eye with correction.

(2) Current assessment of level of academic achievement as measured by standardized tests appropriate to age level and administered individually.

(3) A current evaluation which considers and describes the student's social and emotional behaviors and which provides any implications for educational planning. [Statutory Authority: RCW 28A.13.070(7). 80-11-054 (Order 80-31), § 392-171-446, filed 8/19/80.]

WAC 392-171-451 Definition and eligibility criteria for deaf-blind. Deaf-blind students are those whose hearing and vision impairments, in combination, cause such severe communication and other developmental and educational problems that they cannot be accommodated in special education programs solely for deaf or blind students.

All students considered for initial placement in special education as deaf-blind shall be assessed and determined eligible for special education and related services according to the following:

(1) A current evaluation by a qualified audiologist and vision specialist or physician which describes and confirms that the vision and hearing impairments, in combination, cause such severe communication and other developmental and educational problems that the students cannot be accommodated in special education programs solely for deaf or blind students.

(2) Current assessment of level of academic achievement as measured by standardized tests appropriate to age level and administered individually.

(3) A current evaluation which considers and describes the student's social and emotional behaviors and which provides any implications for educational planning; and

(4) A current assessment of language development as measured by standardized tests or professionally recognized scales appropriate to age level and administered individually. [Statutory Authority: RCW 28A.13.070(7). 80-11-054 (Order 80-31), § 392-171-451, filed 8/19/80.]

INDIVIDUALIZED EDUCATION PROGRAMS

WAC 392-171-456 Meetings. (1) A meeting shall be held within thirty calendar days after the date upon which a student's assessment is completed for the purpose of developing the student's individualized education

program. The school district shall initiate and conduct the meeting and shall include the following participants:

(a) A representative of the school district other than the student's teacher who is qualified to provide or supervise the provision of special education and related services;

(b) The student's regular classroom teacher or special education teacher or therapist: *Provided*, That either the representative of the school district or the teacher or therapist is qualified in the area of the student's suspected disability;

(c) One or both of the parents (in the case of a non-adult student), subject to subsections (2) through (5) of this section;

(d) The student if he or she is an adult student (and in the case of nonadult students, the student, if appropriate);

(e) A member of the student's assessment team; and

(f) Other individuals at the discretion of the district or the parent or the adult student.

(2) Each school district shall take steps to assure (in the case of nonadult students) that one or both parents of the handicapped student are present at each meeting or are afforded the opportunity to participate, including:

(a) Notifying the parent(s) of the meeting early enough to assure his or her participation; and

(b) Scheduling the meeting at a mutually agreed upon place and time.

(3) The notice to the parent(s) shall include the purpose, time, location of the meeting and who will be in attendance.

(4) If a parent cannot attend, the district shall use other methods to assure participation, including individual or conference telephone calls.

(5) A meeting may be conducted (in the case of a nonadult student) without a parent in attendance if the school district is unable to convince the parents they should attend. In such a case the school district shall make a record of its attempts to arrange a mutually agreed upon time and place. The record shall contain such information as:

(a) Detailed records of telephone calls made or attempted and the results of those calls;

(b) Copies of correspondence sent to the parents and any responses received; and

(c) Detailed records of visits made to the parent's home or place of employment and the results of those visits.

(6) The school district shall take whatever action is necessary to assure that the parent (or adult student) understands the proceedings at a meeting, including arranging for an interpreter for parents (or adult students) who are deaf or whose native language is other than English.

(7) The district shall document the parent(s)' and other IEP participants' presence at the IEP meeting.

(8) Meetings consistent with this section shall be conducted by the school district at least once a year for the purpose of reviewing and revising as necessary each student's individualized education program. Meetings may be held more frequently.

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(9) In the case of students admitted to state residential schools, an assessment and individualized education program must be completed as provided in this chapter within fifty school days of enrollment. [Statutory Authority: RCW 28A.13.070(7). 80-11-054 (Order 80-31), § 392-171-456, filed 8/19/80. Formerly WAC 392-171-440. Statutory Authority: RCW 28A.13.010 and 28A.13.070(7). 78-11-074 (Order 11-78), § 392-171-440, filed 10/31/78.]

WAC 392-171-461 Individualized education program. (1) Each handicapped student's individualized education program shall be developed on the basis of assessment analysis and parent input, where it is provided, and shall include:

(a) For each orthopedically impaired and health impaired student under the age of eligibility to first grade, current medical evaluation by a qualified medical practitioner which describes and confirms the student's health circumstance and which provides any medical implications for educational planning;

(b) A statement of the student's present levels of educational performance;

(c) A statement of specific annual goals including short-term instructional objectives which are stated in terms that provide for measurement of progress, expected levels of performance, and the schedules for their accomplishments;

(d) A statement of the specific special education and related services needed by the student, and the extent to which the student will be able to participate in the regular educational program, including physical education. If the student is unable to participate in the regular physical education program, a description of the specially designed physical education to be provided to the student shall be included;

(e) The IEP developed for a handicapped student whose chronological age is fourteen or above shall also include career development and/or vocational education goals and short-term instructional objectives, where appropriate: *Provided*, That if the career development and/or vocational education is specially designed instruction, goals and short-term instructional objectives shall be included;

(f) The projected dates for the initiation of services and the anticipated duration of the services, including the number of school days, the number of hours per day, and the length of the school year over which such services shall be provided: *Provided*, That in the event the individualized educational program is the first in the district for such student and the multidisciplinary team has not made a determination as to the need for an extended school year for such child, the individualized educational program team shall make its recommendation on the length of the school year over which such services shall be provided prior to the conclusion of the regular one hundred eighty school days; and

(g) Appropriate objective criteria and evaluation procedures and schedules for determining, on at least an annual basis, whether the short-term instructional objectives are being met.

(2) The school district shall provide the parent (or the adult student) a copy of the individualized education program.

(3) Nothing in this chapter may be construed as promising or guaranteeing that a handicapped student will in fact achieve the growth projected in his or her annual goals and short-term objectives. [Statutory Authority: RCW 28A.13.070(7). 84-14-036 (Order 84-19), § 392-171-461, filed 6/28/84; 80-11-054 (Order 80-31), § 392-171-461, filed 8/19/80. Formerly WAC 392-171-445. Statutory Authority: RCW 28A.13.010 and 28A.13.070(7). 78-11-074 (Order 11-78), § 392-171-445, filed 10/31/78.]

PLACEMENTS

WAC 392-171-466 Initial educational placement—Notice—Consent. (1) Each school district shall provide written notice of a student's proposed, initial special education placement, or of the district's inability or refusal to make a special education placement, at the initial meeting or within ten calendar days after the initial meeting provided for in WAC 392-171-456. The notice shall comply with the notice requirements of WAC 392-171-526. Provided that pupils admitted to state residential schools shall be enrolled in an educational program within ten school days of admission.

(2) The written consent of the parent(s) (or adult student) shall be requested if special education placement is proposed.

(3) The student's proposed special education placement shall commence when either:

(a) Written consent has been given by the parent(s) (or the adult student); or

(b) The refusal of a student's parent(s) (or adult student) to grant consent has been overridden by the school district pursuant to a hearing (or appeal) conducted in accordance with WAC 392-171-521 et seq. [Statutory Authority: RCW 28A.13.070(7). 80-11-054 (Order 80-31), § 392-171-466, filed 8/19/80. Formerly WAC 392-171-450. Statutory Authority: RCW 28A.13.010 and 28A.13.070(7). 78-11-074 (Order 11-78), § 392-171-450, filed 10/31/78.]

WAC 392-171-471 Least restrictive environment. The placement and provision of services to each handicapped student shall be in his or her least restrictive environment as follows:

(1) Educational setting—Each handicapped student shall be placed:

(a) In the regular educational environment with non-handicapped students to the maximum extent appropriate to his or her needs, unless it can be demonstrated by the school district that the nature or severity of the student's disability is such that his or her education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily; and

(b) In the school which he or she would attend if not handicapped, unless his or her individualized education

The "Legal" Definition of Learning Disabilities

Both federal and state of Washington regulations (WAC 392-121-406) define Learning Disabilities, or Specific Learning Disabilities, as...

" a disorder in one or more of the basic psychological processes involved in understanding or using spoken or written language resulting from perceptual motor handicaps. Such disorders may include problems in visual and auditory perception and integration which may manifest itself in an impaired ability to think, or speak or communicate clearly, read with comprehension, write legibly and with meaning, spell accurately, and perform mathematical calculations, including those involving reading. The presence of a specific learning disability is indicated by near average, or above average intellectual ability, but nonetheless the student demonstrates significant performance deficits in one or more of the following academic achievement areas:

1. Oral expressions;
2. Listening comprehension;
3. Written expression;
4. Basic reading comprehension;
5. Reading comprehension;
6. Mathematical calculations;
7. Mathematics reasoning;

Provided, that such a performance deficit cannot be explained by visual or hearing problem, motor handicaps, mental retardation, a behavioral disability, or an environmental, cultural or economic disadvantage.

A specific learning disability includes conditions described as perceptual handicap, minimal brain dysfunction, dyslexia and developmental aphasia: Provided, that the student meets the eligibility criteria set forth in WAC 392-171-411 and 392-121-416."

The KEY points to attend to in the legal definition are:

1. near average, average, or above average intelligence;
2. a perceptual deficit (grades 1-6 only);
3. significant deficits in academic functioning (i.e., 1/3 or more below expected); and
4. the deficits cannot be explained from the standpoint of visual or hearing problems, motor handicaps, mental retardation, behavioral disability, nor environmental, cultural or economic disadvantages.

These "key" points in the definition are the subject of considerable controversy as indicated below.

1. The requirement for near average, average, or above average intelligence is significant in that it may from time to time eliminate children who are "slow learners" (I.Q.'s 76 to 85) from being eligible for the LD category. Because children with I.Q.'s above 75 are also not considered "retarded," the slow learner may not be eligible for special education assistance.
2. The emphasis on a perceptual deficit has also eliminated some children from being identified as Learning Disabled (according to state special education regulations). The perceptual focus is also under constant fire because:
 - (a) while research is now fairly conclusive that learning disabled individuals have a neurological basis for their problem, perceptual deficits are not found in all learning disabled students nor do all persons with perceptual problems have learning disabilities;
 - (b) tests to measure perceptual functioning generally do not meet the rigid norming standards for reliability and validity associated with, for example, standardized achievement tests. Such measures are particularly sparse and inaccurate with older students; and
 - (c) the relationship of perceptual functioning to academic achievement is not supported by research findings. (See box 1-1 analysis of major techniques to diagnose and prescribe for children).
3. Academic functioning delays are readily measured and do relate well to what school is about. However, the definition of "significant delay" has been interpreted to be related to expected performance levels, which results (again) in the exclusion of many "slow learners." For more details on this issue, see the next section: "How a learning disability is determined."
4. Before a learning disability can be identified, the assessment team must rule out the presence of any other handicapping conditions. This is sometimes difficult when dealing with children with behavior problems, though in general the tendency has been to believe the behavioral difficulties stem from the learning problem, rather than vice versa.

A more difficult issue to determine is the relationship of cultural, environmental, and economic forces on learning problems. One certainly does not want to label a child because of minority status, or environmental or economic factors, but, at the same time, these variables should not be allowed to automatically eliminate students from eligibility.