The relationship between reading comprehension and self-esteem in low level reading adults

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The purpose of this study was to determine if a correlation existed between reading comprehension and self-esteem in adults with no reading ability to adults reading at the fifth grade level. Reading comprehension was measured by the comprehension section of the Brigance Diagnostic Comprehensive Inventory of Basic Skills in half year increments after primer level, from lower first to upper third grade. Full year increments were indicated from
fourth through ninth grade. Self-esteem was self-reported through use of the Counseling form of the Tennessee Self Concept Scale. Data were collected during Fall term, 1989 (September through December) at Portland Community College, Southeast Center in an Adult Basic Education class. T-tests indicated that both reading comprehension and some aspects of self-esteem rose through the study period. However, using the Pearson correlation coefficient, it was determined that a significant correlation did not exist between the variables in question.
THE RELATIONSHIP BETWEEN READING COMPREHENSION
AND SELF-ESTEEM IN LOW LEVEL READING ADULTS

by

JUDY ROSEN HEUMANN

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Self-esteem, as a variable in the learning process, has been investigated in relation to a variety of educational issues. Researchers have taken a close look at the relationship between students' self-concept and their academic achievement. The set of attitudes that one holds about oneself and educational performance appear to be linked (Purkey, 1970; Burns, 1979; Thomas, 1980). There exists a wide body of literature examining the dynamics of the relationship between self-esteem and achievement, although the theoretical writings and empirical studies have been concerned primarily with school age children (Brookover & Associates, 1964; Wirth, 1977; Marsh, 1984; Lawrence, 1985; Hadley, 1988). The correlation between self-esteem and achievement has not yet been tested with the population of low level reading adults.

Adult illiteracy is a growing problem. In 1969 the United States Bureau of Census stated that 1.4 million people 14 years or older attended less than five years of school (cited in Jones, 1981). Each year, an estimated 2.3 million persons are added to that figure (U.S. Department of Education, n.d.). By 1983, the U.S. Department of
Education reported that 23 million American adults were totally or functionally illiterate with an additional 23 million people functioning at a marginal level (cited in Kozol, 1985). Although methods to determine literacy to date have not been statistically standardized, a variety of sources confirm the severity and increasing nature of the problem (Harris, 1970, 1971; Northcutt, 1975; Hunter, Harman, 1979). Adult literacy programs are expanding to meet this need. In Oregon, Adult Basic Education enrollment has increased 304% from 1974 to 1988 (Oregon ABE Growth, 1987).

Even though extensive research exists documenting the connection between self-esteem and achievement in the education of children, and evidence indicates that illiteracy among adult populations is increasing, more empirical information is needed concerning the operant issues of the adult illiterate population. As literacy programs grow, research determining the relationship between self-esteem and achievement will shed light on the degree to which these issues are significantly related in this population.

STATEMENT OF THE PROBLEM

Adults by definition, learning theory, and social research are responsible people who seek to build their self-esteem through pragmatic learning activities in which their competence is enhanced (Wlodkowski, 1985:6).
In adults with low literacy skills, is self-esteem relational to an increase in reading comprehension as these adults seek to improve literacy skills? This question has yet to be examined with this increasingly visible adult sub-population. The purpose of this study is to investigate the relationship between self-esteem and reading comprehension among low level reading adults in an Adult Basic Education class.

**DEFINITION OF TERMS**

Throughout the study there are several terms that deserve special clarification.

**Adult Basic Education (ABE)** is the term used in the federal Adult Education Act to describe education for adults at less than a high school equivalency level. Federally-assisted ABE programs are offered in Oregon through local community colleges and provide education to large and small groups of students using instructors and volunteers for delivery of instruction. The State of Oregon provides additional funds through FTE (full time equivalency) payments to the colleges. Classes are free of cost to students.

**Low level reading adults** includes class participants ages 20 to 60 whose initial reading level ranged between no reading ability and fifth grade reading level.
Reading comprehension is defined as the synthesis and understanding of written material. Half year grade level designations through the third grade and full year designations from grade level four through nine was indicated by the comprehension section of the Brigance Comprehensive Inventory of Basic Skills.

Self-esteem. Self-esteem embodies the sense of evaluative self-worth. In seeking to capture the essence of this concept, subjects were asked to describe "how you feel about yourself" (Roid, Fitts, 1988:8) to yourself. Self-esteem will be measured by the Counseling form of the Tennessee Self Concept Scale.
CHAPTER II

REVIEW OF THE LITERATURE

This chapter reviews the current literature pertinent to this study. The scope and extent of adult illiteracy illuminates the swelling ranks of low literate adults and a concomitant rise in participation in adult literacy programs. Self-esteem is defined, and the distinction is made between the concepts of "self-esteem" and "self-concept". Adult self-esteem is addressed, and more specifically, self-esteem of undereducated adults in relation to learning, is examined. Two salient and observable characteristics of the study sample, employment status and hearing-impairment, is discussed in light of self-esteem. Lastly, theory and research regarding the connection between achievement and self-esteem leads to the purpose and design of this study.

ADULT LITERACY

The data concerning adult literacy rates are elusive due to an inconsistency in definitions of literacy and ways to measure it. In the past, grade level equivalencies were used. However, this proved to be an inadequate method of evaluation, because grade level completion does not
guarantee that the subject actually reads at that level. Not only do grade level indications generally provide underestimates of abilities, in addition, this information does not indicate how long ago the grade level was obtained. Also, self-reporting of literacy information might yield inaccurate statistics (Jones, 1981:5-6). It was clear that indications of functional abilities or competencies to meet the current societal demands, rather than grade level completion, was needed.

Harris and Associates (1970) designed a study to determine the percentage of Americans lacking functional or practical reading skills. Using a reading measure of filling out application forms, the results of the survey indicated that from 4.3 to 18.5 million Americans were functionally illiterate. In 1971, Harris and Associates completed another study using different criteria. Telephone dialing instructions, classified employment, housing ads, and social benefit application forms required to qualify for a variety of public assistant benefits were used. Concluding observations indicated that 4% of the U.S. population (over 5.5 million people) 16 years of age and older "suffer from serious deficiencies in functional reading ability" (Harris, 1971:59).

The Adult Performance Level Project (APL) was a four year comprehensive study funded by the U.S. Office of Education in the 1970s (Northcutt, 1975). The study
designed a series of real-world items to test functional competency by testing abilities in coping with the responsibilities of everyday life including communication skills (reading, writing, speaking, and listening), computation skills, problem solving skills, and interpersonal relationship skills. The U.S. Office of Education in applying the APL standards estimated that over 20% of the U.S. population (23 million) were unable to function adequately (cited in Kozol, 1985). A study funded by the Ford Foundation and published in 1979 reported that in 1978 there were between 54 and 64 million persons sixteen years and older who had not completed high school and were not currently enrolled in school (Hunter, Harman, 1979:28). Jonathan Kozol (Illiterate America) in conferring with both the directors of the APL and David Harman, proposed the following estimates for 1984: in terms of performance, not grade levels completion

[There are] 25 million people reading either not at all or at less than fifth grade level of competence; [and] 35 million additional persons reading at less than ninth grade level (Kozol, 1985:10).

The functional illiteracy rate continues to climb as societal literacy demands increase. An estimated 2.3 million persons annually join the ranks of the functionally illiterate (U.S. Department of Education, n.d.).

Participation in Adult Basic Education programs (ABE) has increased as the numbers of persons lacking basic skills
has risen. Participation in Adult Basic Education programs in the United States rose by almost a million from 915,936 participants in 1980 to 1,910,003 participants in 1984 (U.S. Department of Education, 1986). In Oregon, ABE enrollment in Oregon Community Colleges increased 304% from 9,616 in 1974 to 29,231 in 1988 (Oregon Adult Basic Education, 1988). Between the school years 1985-86 and 1987-88, there was a cumulative 35% growth in Level I (grades 0 to 8) ABE participation (Oregon ABE Growth, 1987).

DEFINITION OF SELF-ESTEEM

William James in 1890 delineated the significant parts of the self: the material self, or one's personal possessions including an individual's body, the social self, or the recognition received from others, and the spiritual self, or the inner subjective sense of being, ego, and consciousness of an internal and personal identity and worth (cited in Thomas, 1980). It is with the latter aspect that the concept of self developed. Coopersmith (1967) referred to a self evaluation that a person makes which indicates the extent of one's capabilities, significance, success, and worthiness. "In short, self-esteem is a personal judgment of worthiness that is expressed in the attitudes an individual holds" (Coopersmith, 1967:4). Burns stated simply:

[an] individual feels he is a person of worth, respecting himself for what he is, not
condemning himself for what he is not, and the extent to which he feels positively about himself. Low self esteem suggests self rejection, self derogation and negative self evaluation (Burns, 1979:55).

As an important psychological construct in explaining or predicting behavior, self-concept embodies the notion of a person's self perceptions (Shavelson et al., 1976:411). Formed through one's interaction with the environment and significant others, self-concept is defined by Shavelson in seven features conceptualizing its meaning. Briefly stated, the self-concept is organized and structured. Secondly, it is multifaceted. The third feature implies that the self-concept is hierarchical and based on individual experiences. A fourth feature states that the self-concept is stable, that is, it seeks to maintain itself as it exists. Fifth, is the developmental aspect of self-concept, especially in reference to the growth and development of children. A sixth feature of self-concept allows for differentiation from other constructs such as reasoning. Lastly, is the connection that Shavelson draws between self-concept and self-esteem. This feature of the self-concept typology highlights the sense of evaluation. Noting the interchangeability in past literature between the terms self-concept and self-esteem, Shavelson reflected on the nature of self-evaluations made in relation to social situations, expectations of self, or in regards to the standards of others.
The evaluative dimension can vary in importance for different individuals and also for different situations" (Shavelson, 1976:411-415).

Throughout the literature, the terms "self-concept" and "self-esteem" have been used interchangeably (Wylie, 1961; Coopersmith, 1967; Shavelson, 1976; Burns, 1979; Hansford, Hattie, 1982). However, the distinction between the two words is important to note. "Self-concept" is an organized, composite set of regulated attitudes representing the self as it exists consistently (Burns, 1979:57). It is a generalization of the formation of the person's self. This complex dynamic has behavioral manifestations, which continues to define and support (either positively or negatively) the sense of "self" (Purkey, 1970; Yamamoto, 1972; Burns, 1979). "Self-esteem," as a sub-set of attitudes, adds the component of evaluation to the self-concept. Self-esteem attaches evaluative self-perceptive judgments of worth and respect based on how a person views him- or herself. Self-esteem is under scrutiny as personal evaluative judgments are made regarding goals, levels of achievement, moral views, and social behavioral norms. "Self esteem means something like having faith in the self and letting the self concept settle where it belongs, not the other way around" (Yamamoto, 1972:214).
FACTORS INFLUENCING SELF-ESTEEM

Adult self-esteem is a complex issue influenced by multiple factors and framed by a sense of past experiences and relationships. Firstly, the subject of adult self-esteem will be discussed in its broad context, and secondly, self-esteem of undereducated adults in relation to learning will be examined in more depth.

An issue of contention regarding adult self-esteem is whether to refer to the self as an object or as a process. Knox (1977) addressed this issue by examining typical sources of adult security—beliefs, family, friends and achievement. The sense of self, Knox contended, evolves throughout life, while reflecting the many influences of experiences and life roles. As the sense of self becomes more stabilized through successful life occurrences, single failures have less direct influence on self-esteem, either positively or negatively. This process of developing a sense of self is interrupted by the discrepancy between one's actual self and ideal self. The hiatus or gap provides the stimulation for continued growth.

The positiveness of self-concept and level of self-esteem tends to increase until middle age and then to stabilize or gradually decline (Knox, 1977:330).

Knowles (1970:44) viewed adult self-concept in comparison to self-concept theory of children. Knowles stated "the single most critical difference between children
and adults as learners is the difference in assumptions we make about their self-concepts. Children begin life as dependent beings, taken care of by adults. The dependency concept is reinforced until the child begins to develop a sense of self identity. As a child grows and matures, he or she increasingly views the sense of self as independent and self-directing. The adult is "one who has arrived at a self concept of being responsible for one's life, of being self-directing" (Knowles & Associates, 1984:9).

Refuting the assumption of self-directedness in adults, Brookfield (1986:94-95) purported that being an adult and arriving at a state of self-directedness are not automatically simultaneous occurrences. Rather, self-directedness is desirable, but cannot be an assumption in adults. In the learning environment, due to dependent-type past experiences with formal education, the opposite might be true. Adults might expect to be directed, rather than to exert their self-directedness, in the learning situation.

Examining the undereducated adult, Bowren and Zintz (1977:20) suggested the theory that failure to achieve minimum standards of high school equivalency creates low self-concept and guilt. This segment of the population that seeks to upgrade literacy skills has a clear understanding of the skills it lacks. The undereducated adult perceives him- or herself as unacceptable as a learner, and as a result, undesirable as a person.
Knowles contended that adult learners no longer view themselves as learners. At this place in life, adults derive their sources of fulfillment in their status as producers: workers, spouses, parents. When adults enter the learning environment, they bring with them recollections of their previous experiences as learners. For the undereducated adult, this might include uncertainties concerning academic abilities and aversion to the physical classroom space (Knowles, 1970:40).

The sense of uncomfortability in the learning environment is echoed throughout the literature (Imel, Grieve, n.d.; Bowren, Zintz, 1977; Darkenwald, 1980) and is manifested by a fear or anxiety of failure. Fingeret documented that undereducated adults describe themselves as concerned about their abilities to succeed in their attempts to improve their literacy skills (Fingeret, 1984). "This usually is interpreted as a psychological characteristic labeled variously fear of failure or low self-esteem and is attributed to the individual" (Fingeret, 1984:16).

In addition to a fear of failure, new learning implies change (Kidd, 1959). Kidd theorized that behavioral changes accompany new learning, and as a result, changes in self-concept occur. The learner can behaviorally change, however, this new sense of identity or self must be both acceptable and defendable (Kidd, 1959).
A middle class perspective has previously characterized the illiterate adult (Fingeret, 1984). From a middle class normative viewpoint, the uneducated adult is compared and classified in light of a deficit perspective. The undereducated adult may be characterized as inarticulate, and unable to cope or think abstractly (Fingeret, 1984). Moreover, this population is globally considered dependent and incompetent by the literate society (Fingeret, 1983). Other unempirical observations define uneducated adults as not being able to read at all, unknowledgeable about many issues, and unable to participate in life's activities (Reder, Green, 1985:7).

Contrary to this perspective is a more balanced view that considers that undereducated adults have learned through a broad background of life experiences (Jones, 1981, Fingeret, 1984) and have well-developed skills of all kinds, as well as a variety of strategies for coping with written material (Fingeret, 1983). Multiple life roles have enabled this population to acquire social skills and develop oral language patterns (Jones, 1981, Fingeret, 1983). Fingeret (1983) studied 43 adults in a mid-size, northeastern, urban setting and noted that illiterate adults create social networks that include readers and non-readers. Adults who are regarded by others as deficient may not regard themselves as such. They view themselves as interdependent, maintaining reciprocal relationships. The conclusion of
this study indicated that illiterate adults have developed a large range of strategies designed to cope with the social world (Fingeret, 1983:145).

Mainstream coping strategies coupled with low level academic skills can have advantageous or disadvantageous manifestations in light of the undereducated adult. Previously acquired attitudes, values, and behaviors are difficult to change (Kidd, 1959). Prior negative interactions with formal schooling can cause adults to suffer from a negative view of him- or herself as a learner. A lack of confidence and continued avoidance of school experiences typifies the undereducated learner. Frustrations arising from slight barriers in the course of study confirm inabilities (Jones, 1981).

In discussing possible factors producing high fear or anxiety levels in undereducated adults, Bowren and Zintz point to a potential threat to self-concept from inadequacies, causing adults to underestimate their abilities (Bowren, Zintz, 1977:42).

Because disadvantaged adults have rarely experienced success either as children in school or in their work or social life since leaving school, they often feel inadequate, unable to learn and compete (National Association for Public School Adult Education, 1966).

However, due to prior life experience, understanding of relationships and priorities, adults seeking to upgrade skills can be well motivated for the task. This population,
in seeking to improve their quality of life, is dedicated to success and is stimulated by learning and behavioral goals (Jones, 1981:26).

In examining barriers or deterrents to education in low literate adults, Hayes (1988) studied a population of 160 low literate ABE students (reading at or below sixth grade level) in seven urban ABE programs. The ABE students were asked to identify the barriers that prevented their participation in the past. The implications from this research were that educationally disadvantaged adults typically experience a combination of barriers that cause them to drop out of programs. The perceptions of barriers is impacted by age, sex, and educational level. Among groups with similar backgrounds and characteristics, differences exist in motivation and deterrence factors. Using a Deterrence to Participation scale developed for low literate populations, five deterrence factors were developed to represent the data. Factor One (Low Self-Confidence) reflected general low self esteem, specifically in regard to academic ability and fear of specific tasks required in the educational process. Factor Two (Social Disapproval) included items to determine the negative value placed on education by family or friends. Factor Three (Situational Barriers) included items such as cost, transportation, or family problems. Factor Four (Negative Attitude to Classes) measured one's dislike of school. Factor Five (Low Personal
Priority) was indicated by items suggesting that other activities took precedence over education. The resulting typology classified six groups of low literate adults. Twelve and six-tenths of the sample had the highest mean score on Factor One (Low Self-Confidence), suggesting fear of failure, perhaps in regard to prior learning difficulties or in regard to a perception of being too old to learn. This group was characterized by a high proportion of males (50% compared to 32% for the sample), and a high mean age (38.2 years compared 29.7 years for the sample). Low Self Confidence was the second highest factor representing 18.9% of the sample (Hayes, 1988:7-8).

Darkenwald (1980), examined continuing education and the "hard-to-reach" adult, which included those people who have "little formal education," and "the elderly, the disadvantaged, blue-collar workers, the handicapped, the geographically isolated and many other identifiable groups and sub-groups in the general population" (Darkenwald, 1980:1). Darkenwald theorized that the most important factors characterizing the hard-to-reach adult include the following: (1) social status, consisting of low socio-economic status based on educational attainment, occupational status, and income; (2) age, indicated by low participation in educational activities for people age 55 and older; and (3) geographic isolation due to illness or handicapping situations (Darkenwald, 1980:2-4). Darkenwald
classified the barriers to participation for adults into four categories: informational barriers, situational barriers, institutional barriers, and attitudinal barriers (Darkenwald, 1980:5-6). The impact of undereducated adults is experienced throughout, however, the last barrier holds special significance for this population.

**Attitudinal barriers** are individually and collectively held beliefs, values, attitudes or perceptions that inhibit participation in organized learning activities. [The]... intangible barriers are for many people much more formidable than tangible ones. How individuals think about themselves, their world, and the uses of education profoundly influences their dispositions and actions regarding continuing education" (Darkenwald, 1980:6).

Attitudinal barriers entail the notions that "schools are for children", or "learning is dull and difficult" (Darkenwald, 1980:6). Devaluing the educational arena as a possible positive setting, undereducated adults approach the learning environment with negative, preconceived ideas of potential benefits to be gained.

In order to further understand the characteristics of the illiterate adult, it is helpful to examine the reasons why adults choose to upgrade their basic skills and their goals. In *Starting over: Characteristics of adult literacy learners* (1987) Smith-Burke designed a study to collect descriptive information from adults whose reading grade level scores were in the 0 to 4.9 range. In a survey taken, questions were asked to determine what makes adults decide
to attend literacy programs. Selected from 15 program sites, 32 ABE students were interviewed. In response to the questions "Why did you decide to attend this program? What do you hope to learn from it?", the most frequent response was job-related (16 responses), however, 10 of the 20 women in the study were the head of their households, and 22 of the total participants were unemployed. The second priority was attainment of a GED (General Equivalency Development), often desired for personal reasons, with 12 adults indicating this as a priority. The third most frequently mentioned motivational reasons (two categories mentioned each by 11 participants) were for self-improvement and because of embarrassment. Balmuth (1986), in a review of adult literacy research, generalized employment goals (to gain or upgrade employment), hopes related to children, and a desire for self improvement are among the strongest verbalized motives in almost every study (Balmuth, 1986:11).

SELF-ESTEEM AND OTHER SPECIAL CHARACTERISTICS

Two salient features of the study population were employment status and hearing impairment. These two characteristics are examined below.

Hearing Impairment

"The study of self-concept in relation to deafness has...theoretical significance for the understanding of human development..." began a paper presented at the 88th
Annual Convention of the American Psychological Association in 1980 discussing deafness and self-esteem (Meadow, 1980:3). Delays in language development, coupled with difficulties in using the language system of the hearing community, poses major problems for the hearing-impaired. The author, Kathryn Meadow from Gallaudet College in Washington DC, postulated that the cultural definition of a disabled person in its negative sense, carries over to the adult, with implications for self-concept and self-esteem. Meadow outlined five theoretical issues that have possible implications in the connection between self-esteem and deafness. These five issues deal with the following: 1) the development of self-concept in light of language deficiencies, 2) the influence of language in developing concepts about the self, 3) the influence of parental feelings towards the hearing-impaired child and the manifestation of those feelings in the development of the child's view of him or herself, 4) the influence of delayed abilities to build personal bonds and consequences for self-esteem, and 5) the influence of negative social and cultural views towards disabled people and the possible effects on self esteem and self concept (Meadow, 1980:4-5).

Most importantly, Meadow discussed problems associated with the assessment of self-esteem using instruments developed for hearing populations. A self-esteem study of 109 subjects newly enrolled at the National Technical
Institute for the Deaf utilized the Tennessee Self Concept Scale as an assessment instrument. The students were retested two weeks later, and the results indicated that the subjects had a "limited understanding of both the questions posed and the implications of various response choices" (Garrison, Tesch and DeCaro, 1978:974). The authors concluded that "there is no evidence to indicate that deaf students can be compared accurately with hearing individuals on the variables assessed in the TSCS" (Garrison, Tesch and De Caro, 1978:973). Furthermore, an analysis of the test items indicated that 33% (33/100) of the items contained linguistic structures suggested as biased against hearing impaired test takers (Meadow, 1980:6).

A study designed to examine the difference in social-emotional patterns among hearing-impaired students in different educational settings, Farrugia and Austin (1980) grouped 200 subjects (ages 10-15) into four categories: 1) deaf students in public schools, 2) deaf students in residential schools, 3) hard-of-hearing students in public schools, and 4) hearing students in public schools. An inventory in research form, the Meadow/Kendall Social-Emotional Assessment Inventory for Deaf Students, was used because of its appropriateness for hearing-impaired students. There were scoring procedures built into the test to eliminate questions not applicable to hearing students.
The results indicated...

...hard-of-hearing students and deaf students in public school appear to demonstrate lower levels of self-esteem than other students. Deaf students in public schools also appeared to demonstrate lower levels of social, emotional, and mature behaviors (Farrugia and Austin, 1980:535).

The authors discussed that a possible explanation for these results is related to the "social isolation and social rejection that the deaf student appears to experience in the company of hearing peers" (Farrugia and Austin, 1980:539).

**Employment**

In the years following the Depression of the 1930s, research documented the positive connection between self-esteem and employment status (Bakke, 1933; Pratt, 1933; Komarovsky, 1940). These studies suffered from a variety of problems including ambiguous definitions of self-esteem, methodological inconsistencies, and a lack of a theoretical base (Perfetti, Bingham, 1983; Larson, 1984). However, recent research on this issue has reported similar findings.

Larson conducted research examining the effect of unemployment on husband and wife self-esteem. Issues of marital adjustment/communication and satisfaction with family relationships were among the variables studied. Information was collected from 40 employed and 41 unemployed blue-collar couples using the Rosenberg Self-Esteem Scale. Although the unemployed group (husbands only) did report low scores on marital and family factors, this group did not
report lower feelings of self-esteem. In identifying possible reasons for this seemingly contrary finding, Larson discussed several factors. The unemployed group was younger, recently unemployed, and had reached a higher educational level compared to the employed group. These factors might have contributed to the "positive influence on the unemployed men--giving them more self-confidence and a more optimistic attitude about future employment" (Larson, 1984:509). According to the author, the "results suggest that relatively more education coupled with youth may result in less threat to self-esteem" (Larson, 1984:509).

Another study was designed to test Super's theory hypothesizing that choice of occupation was important in seeking self-actualization. In its evaluative sense, positive self-esteem is manifested in people who have implemented self-concepts through employment (Super, 1957). Perfetti and Bingham (1983) selected male metal refinery workers. They looked at 97 employed workers, re-employed workers, and unemployed workers. Using the Rosenberg Self-Esteem Scale, their results indicated that the unemployed workers scored lower in self-esteem than the other two groups. The mean rank score for the unemployed group was 18.5 while the re-employed and employed groups scored 36.5 and 52.8 respectively.

Northwest Regional Educational Laboratory (1982) reported findings from questionnaires and telephone surveys
of 15 unemployed men and 15 unemployed women 35 years and older residing in the Pacific Northwest who had been unemployed for at least six months in order to determine how unemployment affects people in the following areas: economic effects, psychological impacts, family/sociological effects, barriers to further education, retraining and relocation to find employment. Psychological impacts were reported by ten of the respondents. These preliminary findings indicated that diminishing feelings of self-worth were expressed by one-third of the respondents (NWREL, 1982).

THEORY AND RESEARCH: SELF-ESTEEM AND ACHIEVEMENT

In general, theory and research has persistently linked self-concept and academic achievement in children (Purkey, 1970; Burns, 1979; Thomas, 1980).

For generations, wise teachers have sensed the significant and positive relationship between a student's concept of himself and his performance in school. They believed that the students who feel good about themselves and their abilities are the ones who are most likely to succeed (Purkey, 1970:14).

Purkey hesitated, however, before assuming a causal relationship between the two variables.

However, a great deal of caution is needed before one assumes that either the self concept determines scholastic performance or that scholastic performance shapes the self concept. It may be that the relationship between the two is caused by some factor yet to be determined. The best evidence now available suggests that it is a two-way street, that there is a continuous
interaction between the self and academic achievement, and that each directly influences the other (Purkey, 1970:23).

The reciprocal relationship between the two variables indicated that change in one seems to be associated with change in the other (Marsh, 1984) and the causal relationship cannot be determined (Scheirer and Kraut, 1979).

At the present state of knowledge it seems reasonable to assume that the relationship between self concept and academic attainment is reciprocal, not unidirectional. Academic success raises or maintains self esteem, while self esteem influences performance through expectations, standards, recognition of personal strengths, higher motivation and level of persistence. There is a continuous interplay between the benefits gained from self esteem increasing the likelihood of increased competencies and academic success, and the influence of academic success on increasing confidence, expectations and standards (Burns, 1979:283).

Thomas (1980) reflected upon the dynamics of the relationship between self-concept and achievement and theorized

...if a person considers a given school subject particularly valuable to him for his desired work, career, or leisure ambitions then failure in that subject will devalue his opinion of his ability in that area. Such failure will tend to lower his rating of his ability in other capacities and may indeed lower his whole self-esteem...It seems reasonable that a pupil's self-concept characteristics will play a role in his reactions to success and failure (Thomas, 1980:65-66).

He argued for the unity of the two variables. As a set of intertwining outcomes, Thomas added
...self-esteem is not something separate from performance but rather integral to it. It is through achievement that academic self-confidence grows, and increased confidence in turn promotes achievement through inspiring further learning. In short, confidence and competence must increase together for either of them to flower" (Thomas, 1980:67).

Prior to the 1950s, researchers limited their inquiries regarding the explanation of academic success to factors including I.Q., social class, parental interest, ethnicity, and gender (Burns, 1979). Soon thereafter, the focus began to include personality influences, the major one being the attitudes of self-perception. Burns noted several considerations regarding the significance of the relationship connecting self-esteem and academic achievement. The first bears the most importance on this research. Burns noted

...the array of correlations linking self-concept level and achievement, while positive and statistically significant, tends to hover in the region of 0.30 and 0.40, a level which is not all that striking, indicating only that up to around 16 per cent of the variance in academic performance can be 'explained' in terms of self-concept level (Burns, 1979:280).

Taking into account other important factors to consider in academic achievement, it is not surprising to find that self-concept alone has a moderate influence. In addressing this concern, Burns suggested that weak correlations were found due to the "frequent use of general self-concept scales which are far too wide ranging, with items nosing into a broad spectrum of areas unrelated to educational
endeavours" (Burns, 1979:280). Burns continued to suggest that self-concept needs to be assessed in relation to particular and specific variables with questions pertaining to those specific variables.

Studies have positively connected various aspects of academic achievement with facets and levels of self-concept (Wirth, 1977; Marsh, 1984; Lawrence, 1985; Hadley, 1988). However, one of the earliest, largest, and well-known studies was conducted in 1964, by Brookover and Associates. With a sample of 1,050 urban 7th grade students in which the Self Concept of Ability Scale was used, the research team tested three hypotheses: 1) self concept of ability is positively related to academic performance, 2) self concept of ability is differentiated into specific self-concepts which correspond to specific subject areas, and 3) self concept of ability is significantly and positively related to the evaluation one perceives that others have of his/her ability. The results of this important piece of research indicated:

1) There is a significant and positive correlation between self-concept and performance in the academic role; this relationship is substantial even when measured I.Q. is controlled. 2) There are specific self-concepts of ability related to specific areas of academic role performance, which differ from the general self-concept of ability. These are, in some subjects significantly better predictors of specific subject achievement than is the general self-concept of ability. 3) Self-concept is significantly and positively correlated with the perceived evaluations that significant
others hold of the student; however, it is the composite image rather than the images of specific others that appear to be most closely correlated with the student's self-concept in specific subjects (Brookover, Thomas and Paterson, 1964:278).

There is a scarcity of research that examines the relationship between self-esteem and achievement in the adult population, and in the low literate adult population there is virtually none. An early study investigated nonintellectual variables and academic achievement, both relational and predictive. The subjects were from the 1967 Sophomore Class at the University of Texas, Austin. The nonintellectual variables included an identity awareness scale reflecting self-development and integration, a self-concept of ability scale comprised of items relating self-concept of ability to academic achievement, and a self-expectations inventory relating behaviors relevant to academic achievement. The academic achievement and aptitude variables included the grade point average and the Scholastic Aptitude Test (SAT). Using 877 subjects, the results indicated the...

...measures of self-perception appeared to be positively related to scholastic achievement, although they are not equally effective predictors of achievement. Brookover's scale on the self-concept of ability as a student proved the most effective and consistent predictor, even better that the SAT (Jones, Grieneeks, 1970:203).

Davisson (1979) investigated reading deficient entering college freshman students. Davisson researched whether
these students' self-concepts differentially affected reading gains when using different methods of instruction. Pretested for both reading (Nelson-Denny Reading Test Form A) and self-concept levels (Personal Self Subscale of the TSCS), students were randomly assigned to classes teaching either content teaching of reading (through a subject area textbook) or artificial teaching of reading (through commercially prepared reading study skills books). The findings of the semester-long study suggested that students' self-concepts did not differentially affect reading gains in the two different methods of instruction. Students in both groups made comparable gains in reading (Davisson, 1979).

Curtis (1982) studied community college readers' perceptions of themselves as readers and the relationship of those perceptions to reading ability. The study also examined the effects that process-oriented reading instruction had upon those perceptions. Reading placement scores and an attitude survey regarding the reading process and reading self-concept were implemented. T-test scores (p < .05) of the 15 subjects enrolled in a "Reading Efficiency" class showed significant improvement in students' attitudes about themselves as readers and in their attitudes regarding the reading process. Interviews conducted revealed an important theme concerning the internalization of the image of a competent reader. Subjects' interviews revealed
...instruction and attitude of the classroom teacher are instrumental in fostering better self-concepts and in changing attitudes about the nature of the reading process (Curtis, 1982:6).

A report of research-in-progress focusing on "the effectiveness of a whole language oriented literacy program in furthering the reading and writing abilities of adult learners in ABE programs" (Patton, Roskos, in press) is examining the lasting effects of the literacy programs on students' achievement and self-perceptions six months after becoming involved with the literacy program. Using standardized instruments to measure cognition and the TSCS to measure the affective area, preliminary findings are indicating

...students' self-concepts/self-esteem are consistently low upon entry into the ABE sites; however, improvement tends to occur as the length of the students' participation increases (Patton, Roskos, in press).

In summary, documented interactions between self-esteem and achievement in children coupled with initial research regarding adult readers indicates that additional information on adults is an important next step. Theory and research suggests that the relationship between the variables is consistent in predicting academic success in children. Expanding upon the information to date, speculations can be made that the relationship between self-esteem and achievement is also notable in the low literate adult population. Considering the characteristics of
undereducated adults, and noting the increasing problem of adult illiteracy, the relationship between self-esteem and achievement in this population deserves attention.
CHAPTER III

METHODOLOGY

RESEARCH QUESTION

The purpose of this study is to investigate the relationship between self-esteem and reading comprehension in the low literate adult population.

HYPOTHESIS

The hypothesis is presented in three sections. First, it is hypothesized that the study population will show an increase in reading comprehension over the course of study. Second, the subjects will show an increase in self-esteem over the course of study. Lastly, it is hypothesized that there is a positive correlation between the increase in self-esteem and the increase in reading comprehension in low level reading adults over the course of the study.

STUDY DESIGN, STUDY SETTING, AND SUBJECTS

This study was a one group design format. The study was descriptive and correlational in nature and took place at the Southeast Center of Portland Community College. Portland Community College is a large, multi-campus
community college that serves urban, suburban and rural populations. The college offers a broad base of credit and non-credit courses and covers 15,000 square miles. The college-wide average student age for the school year 1988-1989 was 35.7 (S. Bach, personal communication, May, 1990). As a non-credit course, 431 students were served in the Adult Basic Education program throughout the entire college system in the 1989 Fall term (J. Ponce, personal communication, June 29, 1990.)

The 21 student sample for this study was taken from an Adult Basic Education class held at the Southeast Center of Portland Community College. Adults attend the open entry/open exit class in order to upgrade their basic skills. The class met five days a week for three hours a day, from 9:00 a.m. to 12:00 p.m. Each term runs eleven weeks. Approximately 30% of class time was spent on reading instruction, divided between individualized and teacher-directed instruction. Reading practice also occurred throughout the program in the instruction of other subjects such as writing, spelling, grammar, and math. Minimum attendance requirements for study participation was 45%. The 21 students in the sample ranged in age from 20 to 60. Students' initial reading levels fell in the 0 to fifth grade range.

Class time was divided between individualized learning and group instruction. Students were initially assessed and
placed in materials and small instructional groups appropriate to their skill level. The class was staffed with two teachers and at least two volunteer tutors each day. Reading instruction occurred in small groups (five to eight students) with an instructor. This instruction included oral reading and discussion. Critical reading skills, problem solving and interpretation were stressed. Students continued their seatwork individually or with other students. Mathematics, writing, and spelling were individualized, although students were encouraged to work together. Language and vocabulary were taught to the entire class. Science, geography and a newspaper discussion group were optional learning sections for the students. Films on a variety of topics and captioned for the hearing-impaired, were shown once a week. Speakers from the community came every two weeks to speak to the class on topics including health care, nutrition, employment opportunities, and the community library services. Once a week an instructor read aloud to the class from a book written by an Oregon author. At the end of the term, the author visited the class to share his experiences as a writer.

An independently conducted self-reported Student Profile (see Appendix A) completed during the course of study indicated that 39% of the students had been in the program up to two terms. Thirty-six percent of the students reported attending the class between two terms and one year.
Twenty-five percent of the students indicated that they had come to the ABE class for two or more years. While attending public school, 32% of the students reported attending a special education program. In addition, 69% indicated that they have a type of disability including physical disabilities (hearing or speech-impairment, epilepsy), mental illness, job related injuries, or developmental disabilities. A majority of the students reported receiving assistance (Social Security Insurance, disability compensation, or worker's compensation).

INSTRUMENTATION

Two instruments were selected; one to assess self-esteem and one to assess reading comprehension. A self-made demographic survey was devised to collect descriptive information. The Counseling form of the Tennessee Self Concept Scale (TSCS) measured self-esteem and was selected as it is a self-esteem measure intended for individuals "aged 12 or older who can read at approximately a fourth-grade level or higher" (Roid, Witts, 1988:1). Additionally, the test can be administered orally. The Piers Harris and Rosenberg Self Esteem Scale were reviewed for use in the study. The Piers Harris was designed for use with children and therefore not appropriate for the study population. The Rosenberg Self Esteem Scale, although a short ten item assessment, was reviewed and judged to be too vague and
difficult to understand. Additionally, it was determined that the short length of the instrument might cause internal validity problems.

The comprehension section of the Brigance Comprehensive Inventory of Basic Skills measured reading comprehension in half year increments after primer level, from lower first grade to upper third and in full year increments from fourth through ninth grade. This measure is currently used to assess grade level reading abilities in the study setting. Although designed for use with children, the instrument was selected because it provides grade level indications in a non-threatening manner. The graded paragraphs are short; the print is large, and test-taking time is minimal.

**Tennessee Self Concept Scale**

This instrument was developed to study and understand human behavior (Fitts, W. H., 1964). The scale consists of 100 self-descriptive items rated on a five-point rating scale (see Appendix B). It is self-administering with individuals or groups and can be given orally. The TSCS can be used with subjects age 12 and up with a minimum reading level of fourth grade. There is no time limit for completion. The Counseling form was designed for use by counselors in academic settings and community agencies and can be used for self-interpretation. The scale contains two subscales. The Self Criticism scale includes 10 items that are mildly derogatory and seeks to test for validity and
candidness. Most people can admit that these items are true for themselves. Denial of most of these statements indicates defensiveness; the test taker might be attempting to create a favorable image of him or herself or refusing to admit to common weaknesses. Low scores point to an indication that the subject has not been honest. The remaining 90 items comprise the Total Positive Subscale. They are equally divided between positive and negative items. Other sub categories of the scale (row and column scores) provide measures of identity, self satisfaction, behavior, physical self, moral-ethical self, personal self, family self, and social self. Two other scores are calculated. The Variability score indicates the consistency of self-perception across the sub categories, with high scores suggesting high variability, reflecting little unity in self-perceptions. The Distribution score is a reflection of how the subject distributes his/her responses across the five-point scale. Low scores indicate frequent responses in the middle range, while high scores are characteristic of frequent extreme responses. The TSCS provides an overall profile of self-esteem, with high Total Positive scores and low Variability scores indicating general feelings of self-worth, personal value, and self-confidence. Low Total Positive scores and high Variability scores indicate doubts concerning self-worth, and a lack of confidence (Burns, 1979; Mitchell, 1985; Roid, Fitts, 1988).
The group from which the norms were developed was from a sample of 626 persons, age 12-68. Equal numbers of both male and female subjects were represented as well as a broad range of socio-economic and ethnic groupings. The test-retest coefficients of all major scores are given (see Appendix C). Other evidence of reliability is found in the similarity of profile patterns found through repeated measures of the same individuals over long periods of time and through various types of profile analysis. The authors have demonstrated that the distinctive features of the individual reliability coefficients are still present for most persons a year or more later (Roid, Fitts, 1988). Reliability coefficients for the various profile categories used in computing the NDS (Number of Deviant Signs score) fall mostly in the .80 to .90 range (Roid, Fitts, 1988).

Validation procedures cover both content validity and construct validity (correlation with other personality measures). Content validity is demonstrated by a classification system which is used for row and column scores. This system is dependable, as each item was retained only by unanimous agreement by judges that it was classified correctly (Roid, Fitts, 1988:87-88). Most of the TSCS scores correlate with other personality measures, such as, the MMPI (Minnesota Multiphasic Personality Inventory), the Edwards Personal Preference Schedule, and the Inventory of Feelings (Roid, Fitts, 1988:70-76).
The TSCS can be orally administered or self-administered with either groups or individuals. The answer sheet is arranged so that the subject responds to every other item. Clear instructions are necessary to avoid confusion. Minimal training of test administrators is necessary.

A number of concerns regarding the TSCS have been noted (Bentler, Suinn, 1972) which relate to problems with the manual. Some of the concerns related to the absence of information concerning the internal structure of the test, the interpretation of the data base, test validation, and test interpretation. Scoring methods are extensive and tedious although well organized in the test packet. The TSCS, in summary, is one of the better measures combining group discrimination with self-concept information (Buros, 1972).

Brigance Comprehensive Inventory of Basic Skills

The Brigance is a criterion referenced specific-objective test (Brigance, A. H., 1983) that covers a range of skill areas for levels pre-kindergarten to ninth grade (see Appendix D). The comprehension section of the Brigance consists of short, graded paragraphs based on a Fry Readability, which indicates reading level by grade level. Forms A and B are available for split-half reliability. The test is teacher-administered for reading levels primer to upper first grade. For each of these levels, the student
reads a passage and then answers oral questions. For the remaining levels, lower second to ninth, the Brigance is self-administering. The student reads the passage which is followed by multiple choice comprehension questions. Students circle the letter of the correct response. There are three possible answer choices for levels lower second through upper second grade. For the remaining levels, lower third through ninth, there are four answer choices. Four out of five correct answers (80%) are necessary for mastery. Time limits are based on teacher discretion. Reading ability is assessed in half year increments after the primer level, from lower first to upper third grade, and in full year increments from fourth through ninth grade (Mitchell, 1985).

There are no reliability or validity data available. However, when both Forms A and B are used (a total of ten comprehension questions) face validity is quite high. As a currently used assessment tool to indicate grade level abilities, the Brigance is successful in providing the information accurately, quickly, and with little embarrassment to the test-taker. Seven out of ten correct responses (cumulative total) on Forms A and B were required for placement at a given grade level.

The major concerns of this instrument (Mills, Swerdlik, 1985) surround the lack of appropriate information on item quality, content and construct validity, and alternative
form reliability. These issues limit the generalizability of the test results. The reviewers agree that the test appears to yield useful information which is easily utilized for individual assessment in educational programs. It is recommended that the test be used in conjunction with a norm-referenced test. The testing kit refers to an assessment of content validity; however, results of this assessment are not presented. No mention is made of construct validity. The test author, A. Brigance indicated that test paragraphs were chosen through a review of the most recently published tests of several commonly used basal readers (Mills, Swerdlik, 1985).

Demographic Survey

A Demographic Survey was constructed to further describe the study population (see Appendix E). Information collected yielded the following information: gender, highest grade achieved in school, parent's educational level, employment status, and type of employment.

DATA COLLECTION

The TSCS was pilot tested during the 1989 Summer session with six students in the same class in which the study was conducted. It was noted that the answer sheet was confusing to follow, and some of the vocabulary was difficult to understand.
In the Fall of 1989, the comprehension section of the Brigance Comprehensive Inventory of Basic Skills was given to the students as they entered the ABE class at the beginning of the term. The instructions to the students were to read each paragraph and then answer the multiple choice questions following each paragraph by circling the letter of the correct answer. Students who were unable to read the initial paragraph at lower second grade level were given the test orally. These subjects were asked to read paragraphs beginning at a primer level and then answer oral questions. Testing stopped when subjects missed more than 70% of the questions. Subjects completed both paragraphs for each level (form A and B). The reading assessment was untimed. Administration continued throughout the first two weeks of the term, however, all but three students took the test within the first week of the term. Assessing reading level is standard procedure for placement of students in instructional materials in the ABE program.

On the Friday of the first week of the term, the research project was discussed with students. The Informed Consent forms (see Appendix F) were passed out and were reviewed thoroughly. Questions were answered, and the forms were signed by the students. A demographic questionnaire was also completed at this time (see Appendix E). One-half of the TSCS was administered orally on this day. Make-ups were given on the following Monday and individually skipped.
items were answered throughout the second week. The second half was given at the end of the second week. The first half of the test took one hour to administer, and the second half took 45 minutes. The students were given paper markers to use to help them keep their place as subjects respond to every other item on the answer form. The five-point scale is printed on the cover of the test booklet. All students had a printed copy of the description of the scale in front of them so they could refer to it as needed. A few of the students chose to follow the printed test booklet, however, most concentrated on the oral reading of the instrument. The hearing-impaired students followed the same testing procedures with the exception that an interpreter signed the test items for the students. The normal course of instruction proceeded throughout the 11 week term. The subjects were posttested using the same assessment instruments and test administration procedures the tenth and eleventh week of the term.

DATA ANALYSIS

Data analysis was completed using Statistical Package for the Social Sciences (SPSS). T-tests were conducted on pre- and posttest scores for both the comprehension section the Brigance Comprehensive Inventory of Basic Skills and the Tennessee Self Concept Scale. The Pearson Correlation Coefficient assessed the correlation between the gain in
reading and change in self-esteem and also was utilized to control for the effects of the demographic variables. The analyses were performed using a .05 level of significance.

LIMITATIONS

Important study limitations deserve attention. They include the following issues: 1) the Tennessee Self Concept Scale including test administration, the self-report nature of the test and the stability of self-esteem, 2) the Brigance Comprehensive Inventory of Basic Skills and the lack of critical norming information, and 3) design concerns including the length of the study, sample size and the influence of unrelated stress factors.

Tennessee Self Concept Scale

Test administration. There were a variety of concerns related to the administration of the instrument. The non-sequential ordering of the test items (respondents answer every other item) was initially a problem, even though subjects used markers as a guide. As the test proceeded, the marking system became clearer. The phrasing of some test items was confusing, especially statements posed in the negative. For example, Item number 7 reads "I am neither too fat nor too thin." Item number 59 reads "My friends have no confidence in me." These statements were difficult because the subjects were unclear as to exactly what the statement
meant. Other test statements contained sophisticated vocabulary or concepts, such as Item number 25, "I am satisfied with my moral behavior." Additionally, subjects appeared to have difficulty in distinguishing between shades of truth or falseness. For example, the scale discriminations ("completely false, mostly false, partly true and partly false, mostly true and completely true") were conceptually difficult for some students (see Table II for extreme ranges on Distribution scores).

**Self-reporting test information.** Wylie (1961) discussed the methodological problems inherent in self-concept research. The self-report nature of self-concept instruments is an important consideration.

We would like to assume that subject's self-report responses are determined by his phenomenal field. However, we know that it would be naive to take this for granted, since it is obvious that such responses may also be influenced by (a) subject's intent to select what he wished to reveal to the examiner; (b) subject's intent to say that he has attitudes or perceptions which he does not have; (c) subject's response habits, particularly those involving introspection and the use of language; (d) a host of situational and methodological factors which may not only induce variations in (a), (b) and (c), but may exert other more superficial influences on the responses obtained (Wylie, 1961:24).

Purkey (1970) and Burns (1979) discussed the two methods of collecting information regarding self concept: observation and self-report. Of the latter, Burns noted
that self-reporting self-concept information makes available "what a person is willing to reveal about himself" (Burns, 1979:74). This reflects on the differentiation between the self-concept and the self-report of the self-concept. The accurateness of the information depends upon

(a) the clarity of the individual's awareness; (b) the availability of adequate symbols for expression; (c) the willingness of the individual to cooperate; (d) social expectancy; (e) the individual's feeling of personal adequacy; (f) his feelings of freedom from threat" (Burns, 1979:75).

Purkey concluded his discussion of the problems of self-report evaluations with

there are a host of contaminating variables in self-reports...this means that conclusions about self-concept based solely on self-reports must be taken with a great deal of salt. However, in spite of their weaknesses and limitations, self-reports do reveal characteristics of the self...(Purkey, 1970:60-61).

Acknowledging and considering the limitations while supporting the positive nature of self-report, Burns indicated that "Self-report techniques are literally the only method available for measuring the self concept, and if they are to be rejected then psychology would be seriously limited" (Burns, 1979:77).

Stability of self-esteem. The second issue of concern regarding self-esteem is the stability or consistency of the construct and how often one can expect to detect changes. The TSCS manual reports that the test-retest reliability
change scores are quite small for a median time period of six weeks (Roid, Fitts, 1988:66). Purkey (1970) discussed self-image shifts and stated that the perception of self is "ultraconservative" and "resists change and strives for consistency" (Purkey, 1970:11). In support of the organization and consistency provided by the self, change is resisted as much as possible. Purkey added, however, that "the self will change if conditions are favorable" (Purkey, 1970:12). The TSCS manual also states "It is logical to expect that certain life experiences would affect the way in which a person sees himself or herself" (Roid, Fitts, 1988:81). However, changes are reflected in predictable ways (Roid, Fitts, 1988).

Pendergast and Binder (1975) reported the testing of the relationships of selected self-concept and academic achievement measures. Using the Pearson product-moment correlation coefficient, they found that of the three instruments reviewed, the Tennessee Self-Concept Scale, the Brookover Self-Concept of Ability Scale, and the Rosenberg Self-Esteem Scale, the TSCS showed the highest correlation with reading (.984 with p < .001) (Pendergast and Binder, 1975:94).

Brigance Comprehensive Inventory of Basic Skills

The lack of reliability and validity information for the instrument presented an important concern. The choice of this test was made due to the ease of administration and
appropriateness to the population under study. The Brigance gives grade level indications in a non-threatening manner. The passages are short and test taking time is minimized. Even though the Brigance is used in ABE classes to assess comprehension for placement in instructional materials, the test was designed for use with children.

Design concerns

Length of the study. The question regarding the detection of change in either of the two variables within the given time frame is important to note. The term ran for eleven weeks. Testing of both variables took place the first two weeks and the last two weeks in order to obtain complete information on all subjects. The actual time to demonstrate change was seven weeks.

Sample size. The original design of the study was to include a minimum of 30 subjects with the inclusion of as many as possible. "For correlational studies at least 30 subjects are needed to establish the existence or nonexistence of a relationship" (Gay, 1987:115). However, the open entry/open exit nature of the program, coupled with the attendance minimum set at 45%, limited the participation of subjects to 21.

Unrelated stress factors. General life events of significance could have confounded the results of the study. None of the subjects underwent major life changes (employment changes, major illness, marriage, divorce,
family death) during the course of study. However, it must be noted that all confounding influences brought about by stress factors were not controlled within the limits of the study.
CHAPTER IV

RESULTS

The results of the demographic survey are presented in Table I. Ten students reported 12 or more years of education, and one student reported two years of college in a foreign country. However, the mean of the highest grade completed for the five foreign born subjects was 10.6, while the mean for the sixteen U.S. born subjects was 9.4 years. Of the five hearing-impaired students, three were significantly impaired and use sign language to communicate. The remaining two students were hard-of-hearing and obtained hearing aids after the course of the study. In the significantly hearing-impaired subjects, two of the three attended special schools for the deaf, while the remaining one attended a public school. The mean of highest grade completed for the three significantly hearing-impaired was 11.33, while the mean for the two hard-of-hearing was sixth grade. It should be noted that one of the hard-of-hearing subjects had no schooling, and the other completed 12th grade.

An additional piece of information collected was education of the subjects' parents. Father's education was unknown for 15 (71.4%) of the sample. For the remaining six
students, the average education of the fathers was nine years. Four of the six fathers completed 12 or more years of education. Mother's education was unknown for 14 (66.7%) of the sample. For the remaining third of the mothers, average education was ten years. Four of the seven mothers completed 12 or more years of education.

**TABLE I**

RESULTS OF DEMOGRAPHIC SURVEY

<table>
<thead>
<tr>
<th>Demographic Factors</th>
<th>Number</th>
<th>Percent</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20-60 yrs. (range)</td>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>9</td>
<td>42.9</td>
<td>-</td>
</tr>
<tr>
<td>Male</td>
<td>12</td>
<td>57.1</td>
<td>-</td>
</tr>
<tr>
<td><strong>Highest Grade Completed</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-8</td>
<td>6</td>
<td>28.6</td>
<td>5</td>
</tr>
<tr>
<td>9-14</td>
<td>15</td>
<td>71.4</td>
<td>11.6</td>
</tr>
<tr>
<td><strong>Employment</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unemployed</td>
<td>15</td>
<td>71.4</td>
<td>-</td>
</tr>
<tr>
<td>Employed</td>
<td>6</td>
<td>28.6</td>
<td>-</td>
</tr>
<tr>
<td>Part-time</td>
<td>4</td>
<td>66.7</td>
<td>-</td>
</tr>
<tr>
<td>Full-time</td>
<td>2</td>
<td>33.3</td>
<td>-</td>
</tr>
<tr>
<td><strong>Hearing Status</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hearing</td>
<td>16</td>
<td>76.2</td>
<td>-</td>
</tr>
<tr>
<td>Hearing-Impaired</td>
<td>5</td>
<td>23.8</td>
<td>-</td>
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<tr>
<td><strong>Origin of Birth</strong></td>
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<td></td>
</tr>
<tr>
<td>U.S. Born</td>
<td>16</td>
<td>76.2</td>
<td>-</td>
</tr>
<tr>
<td>Foreign Born</td>
<td>5</td>
<td>23.8</td>
<td>-</td>
</tr>
</tbody>
</table>
Employment status was ascertained for the sample. Jobs for the six students who reported part or full time work included housekeeper, volunteer, tavern security guard (bouncer), lawn mower, telephone solicitor, and dishwasher.

Findings of the pre- and posttest scores for the Tennessee Self Concept Scale are presented in Table II. The mean Total Positive scores changed between pre- and posttests by a value of 10.6 (mean of 319.7 for the pretest and 330.3 for the posttest). This change was significant at the 0.039 level. The lower end of the range of the Total Positive scores changed from 253 (pretest) to 266 (posttest) while the upper end of the range changed from 357 (pretest) to 415 (posttest).

The mean t-test scores for Self Criticism decreased by a 0.9, from a 33.0 (pretest) to a 32.1 (posttest). This change is not significant (p = .191). The mean Variability scores decreased by 6.1, from 53.8 (pretest) to 47.7 (posttest). The downward direction of the Variability score is expected if self-esteem improves, and the degree of change is significant at the .015 level. The mean scores for Distribution decreased by 3, from 128.4 (pretest) to 125.4 (posttest). This change is not significant (p = .275).
<table>
<thead>
<tr>
<th>Normal Range and Extremes</th>
<th>Pretest</th>
<th>Posttest</th>
<th>Changes in Mean Score (−)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>range</td>
<td>mean</td>
<td>range</td>
</tr>
<tr>
<td>Total Positive</td>
<td>317-405 range</td>
<td>253 - 357</td>
<td>319.7</td>
</tr>
<tr>
<td>Self Criticism</td>
<td>27-50 extremes</td>
<td>26-49</td>
<td>33.0</td>
</tr>
<tr>
<td>Variability</td>
<td>17-62 range</td>
<td>32-91</td>
<td>53.8</td>
</tr>
<tr>
<td>Distribution</td>
<td>85-170 extremes</td>
<td>85-187</td>
<td>128.4</td>
</tr>
</tbody>
</table>
An increase in positive self-esteem using the TSCS is reflected in a correlation between increasing Total Positive scores with decreasing Variability scores (Roid, Pitts, 1988:17). Table III presents the correlation coefficient and P value for the change in Total Positive and change in Variability scores from pre- and posttests for the study population. The correlation is not statistically significant (p = .303).

**TABLE III**

CORRELATION IN MEAN SCORES BETWEEN CHANGE IN TOTAL POSITIVE AND CHANGE IN VARIABILITY (USING PEARSON CORRELATION COEFFICIENT AT .05 LEVEL OF SIGNIFICANCE, DF=19)

<table>
<thead>
<tr>
<th>Total Positive</th>
<th>c.c.</th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variability</td>
<td>.1192</td>
<td>.303</td>
</tr>
</tbody>
</table>

Findings of the pre- and posttest scores for the Brigance Comprehensive Inventory of Basic Skills are presented in Table IV. The mean change between pre- and posttest increased a half grade level from upper second grade to lower third grade. This was significant at the .002 level using a two-tailed t-test.

Table V presents the results of the Pearson Correlation Coefficient on change in reading (Brigance) and self-esteem
(TSCS) scores. None of the values demonstrated a significant covarying relationship.

An analysis of the demographic factors in association with change in self-esteem and reading levels was conducted. Findings are presented in Table VI. None of the demographic variables were significantly correlated with change in reading. The only demographic variable demonstrating a correlation with a change in Total Positive scores were work status \((p = .020)\) and hearing status \((p = .011)\). The mean change in Total Positive scores for employed subjects was 28.8, while the mean change in Total Positive scores for unemployed subjects was 5.1. The mean change in Total Positive scores for the hearing subject was 19.9, while the mean change for the hearing-impaired subject was -.12.0.

**TABLE IV**

**PRE- AND POSTTEST RESULTS FOR BRIGANCE COMPREHENSIVE INVENTORY OF BASIC SKILLS**

<table>
<thead>
<tr>
<th></th>
<th>Pretest</th>
<th></th>
<th>Posttest</th>
<th></th>
<th>Level of Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>range</td>
<td>mean</td>
<td>range</td>
<td>mean</td>
<td></td>
</tr>
<tr>
<td>Reading Scores</td>
<td>0-5</td>
<td>upper</td>
<td>0-9</td>
<td>lower</td>
<td>.002</td>
</tr>
<tr>
<td></td>
<td></td>
<td>second</td>
<td></td>
<td>third</td>
<td></td>
</tr>
</tbody>
</table>
TABLE V

CORRELATION IN MEAN SCORES BETWEEN CHANGE IN TSCS AND CHANGE IN BRIGANCE COMPREHENSIVE INVENTORY OF BASIC SKILLS (USING PEARSON CORRELATION COEFFICIENT AT .05 LEVEL OF SIGNIFICANCE, DF = 19)

<table>
<thead>
<tr>
<th>TSCS Test Components</th>
<th>Brigance</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Correlation Coefficient</td>
<td></td>
</tr>
<tr>
<td>Total Positive</td>
<td>0.0594</td>
<td>0.399</td>
</tr>
<tr>
<td>Self Criticism</td>
<td>-0.1608</td>
<td>0.243</td>
</tr>
<tr>
<td>Variability</td>
<td>0.1414</td>
<td>0.271</td>
</tr>
<tr>
<td>Distribution</td>
<td>-0.1049</td>
<td>0.326</td>
</tr>
</tbody>
</table>
### TABLE VI

DEMOGRAPHIC CORRELATIONS WITH CHANGE IN TOTAL POSITIVE SCORES AND READING LEVEL (USING PEARSON CORRELATION COEFFICIENT AT .05 LEVEL OF SIGNIFICANCE, DF = 19)

<table>
<thead>
<tr>
<th>Demographic Variables</th>
<th>Change in Total Positive Score</th>
<th>Change in Reading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attendance</td>
<td>.1424</td>
<td>.269</td>
</tr>
<tr>
<td>Age</td>
<td>.0446</td>
<td>.424</td>
</tr>
<tr>
<td>Highest Grade Completed</td>
<td>-.1352</td>
<td>.280</td>
</tr>
<tr>
<td>Work Status</td>
<td>.4510</td>
<td>.020</td>
</tr>
<tr>
<td>Hearing Status</td>
<td>.4951</td>
<td>.011</td>
</tr>
<tr>
<td>Origin of Birth</td>
<td>.3454</td>
<td>.063</td>
</tr>
<tr>
<td>Gender</td>
<td>.0323</td>
<td>.445</td>
</tr>
</tbody>
</table>
Eleven out of 21 subjects (54%) completed 12th grade and, therefore, went through a formal educational system to completion. However, the average reading grade level for these subjects was pretested at upper second grade. It appears that these subjects were passed out of high school without mastering twelfth grade competencies. Of those 11, three subjects are foreign born and completed high school in their native country. This may indicate that low reading levels, unequal to their highest grade completed, reflect that English is their non-native language. Nevertheless, eight out of sixteen (50%) of the U.S. born subjects with low reading scores completed twelve years of formal education in this country. According to subjects' self-report, 32% of the subjects reported attending a special education program while in public school.

The mean age of the sample population was 38.5 years. For the school year 1988-89, this compares to 35.7 years of age for the total Portland Community College system. In addition, this compares to a mean age of 30.2 years for College-wide, non-credit Adult Education sections, which
includes Adult Basic Education, General Education Development, and English as a Second Language (S. Bach, personal communication, June 12, 1990). The mean age for the study population was older than the mean age for both the college in general and for the Adult Education portion of the total college population.

Eight of the subjects' parents (within five families) completed 12 or more years of school. Four of these subjects themselves also completed an average of 12 years of education. The one exception was the subject who did not attend school at all, as the parents considered the subject, as a child, uneducable. It appears that in this study, parents who completed school are more likely to have children who also completed school. However, parent educational levels were unknown for 71.4% of the fathers and 66.7% of the mothers.

Less than one-third of the subjects were employed full or part time. The jobs they held were generally low wage earning positions. This might reflect the link between literacy levels and wage earning power.

The Total Positive score in relation to the Variability score gives a general pattern of self-esteem levels. "In other words, the profile pattern of the typical positive self-concept shows low Variability and high Positive scores" (Roid, Fitts, 1988). It appears that using the TSCS there was no demonstrated change in self-esteem during the study
period (Table III). Some possible reasons for this lack of demonstrated change include test administration difficulties, self-report considerations, and stability of self-esteem over time.

The normal range for Total Positive scores on the TSCS is 317 to 405 (Roid, Pitts, 1988). The mean Total Positive scores for the study population on the pre and posttests were low-normal (319.7 for the pretest and 330.3 for the posttest). This falls into the 18th to 28th percentile, respectively. However, significant gains were observed through the course of the study (Table II).

As a determinant of validity, Self Criticism scores indicate candidness and honesty. The means for Self Criticism scores remained virtually unchanged between pre- and posttest (Table II). The extremes for Self Criticism scores on the TSCS are 27, very low, to 50, very high (Roid, Pitts, 1988). The mean Self Criticism pre- and posttest scores for the study population were in the 40th and 35th percentile, respectively. These scores indicate overall validity in this sub-scale. Two subjects (9.5%) scored below the low extreme on the pretest, and four subjects (19.9%) scored below the low extreme on the posttest. This gives an indication that further investigation might be necessary to insure candidness (Roid, Pitts, 1988).

The Variability score indicates the consistency of self-perception across the sub categories. High scores can
be interpreted as high variability or a lack of unity in self-perceptions. The mean pre-test score for Variability (53.8) was at the high end of the range. Mean posttest scores (47.7) demonstrated a significant decrease indicating more consistency in students' responses.

The Distribution scores are a reflection of how the subject distributes his/her responses across the five-point scale. Low scores indicate frequent responses in the middle range, while high scores are characteristic of frequent extreme responses. The means for Distribution scores changed only slightly between pre- and posttest (Table II). The extremes for Distribution scores on the TSCS are 85, very low, to 170, very high (Roid, Fitts, 1988). The mean Distribution pre- and posttest scores were in the 61st and 57th percentile, respectively. Seven subjects (33.3%) scored either above or below extreme scores on both the pre- and posttests. The TSCS manual states that subjects falling above or below the extremes are "showing indecision or extreme guardedness...A true picture of self-concept is very difficult to obtain from such a test-taking approach" (Roid, Fitts, 1988:16). As the test examiner, my observation was that subjects found it difficult to distinguish between shades of truth or falseness when responding to the test items. Examination of the test sheets confirmed this observation. My judgement is that subjects, unable to make the distinction between the test scale indications, fell
into a more comfortable pattern of marking extreme degrees of complete truth or complete falseness or marking consistently in the middle range.

The Brigance measured reading comprehension in half year increments from lower first to upper third grade, and in full year increments from fourth though ninth grade. Mean increases in reading level were reflected in an overall grade gain of one-half year through the course of the study (Table IV). This indicates that reading comprehension improved significantly through the course of the study.

There was no significant correlation between change in self-esteem and change in reading levels (Table V). When comparing the scores with demographic characteristics, an association was noted between work status and change in Total Positive scores as well as hearing status and change in Total Positive scores. Those who were employed had higher Total Positive scores, and the hearing subjects had higher Total Positive scores. Although this is interesting, the same correlation did not hold true for employment and hearing status when compared with general increase in self-esteem as measured by the combination of Total Positive and Variability scores.

CONCLUSIONS AND RECOMMENDATIONS

In summary, there were three hypotheses tested in this study. The conclusions of each are presented below:
1) The study population will show an increase in reading comprehension over the course of the study.

Results of the Comprehension section of the Brigance Comprehensive Inventory of Basic Skills demonstrated a significant rise in reading levels for the study population over the course of the investigation.

2) The study population will show an increase in self-esteem over the course of the study.

Results of the Tennessee Self Concept Scale demonstrated a significant rise in the Total Positive scores and the Variability scores. However, the strongest indication of self-esteem is reflected in increasing Total Positive scores and decreasing Variability scores. These scores were not significantly correlated which indicates that the strongest reflection of change in self-esteem was not demonstrated.

3) There is a positive correlation between the increase in self-esteem and the increase in reading comprehension among low level reading adults.

The relationship between the two variables was not demonstrated as significant, although when examining work status and hearing status, there was a significant correlation with change in Total Positive scores.

The limitations of the study, especially the inappropriateness of the TSCS with the sample population, the short length of the study, and the small sample size,
were important hindering factors. However, despite the limitations, the following conclusion can be drawn.

1) Adult reading levels are improving while subjects are participating in the ABE program.

Since self-esteem remains a critical component in educational achievement as demonstrated in past research, repetition of this study should be conducted considering the limitations outlined. The following recommendations are indicated.

1) Use a larger sample size of at least 30 subjects or more if possible. Otherwise, a case study format might be appropriate to examine the relationship between reading comprehension and self-esteem in the low level reading adult population.

2) Lengthen the time of the study to a minimum of two terms in order to increase the likelihood of identifying possible changes, especially in self-esteem.

3) Limit the study to hearing subjects to obtain baseline information for the hearing segment of the population.

4) Include equal numbers of employed and unemployed subjects to confirm the significance of employment status as an important factor in relation to self-esteem.

5) Investigate other self-esteem inventories and instruments to determine whether there is another instrument appropriate to low level reading adults or develop an
instrument specific to this population. Prior to the study, thoroughly pilot test the instruments with the population to insure applicability to undereducated adults and insure that the administering procedures run smoothly.

6) Rather than evaluate general self-esteem levels, locate or create an instrument that is specific to the evaluation of self-esteem in a contextual relationship to the subject as a learner. A determination of self-esteem levels that indicate self-perceptions of the individual as a student would give more specific information than general self-esteem.

7) Investigate other reading assessments that are designed to test adult, not child, reading levels. This includes adult interest subject material written at levels primer to ninth grade. The print should be large, and the comprehension check should be presented in a simple, non-threatening format. The reading test should measure progress in small, partial year increments.

Self-esteem is a difficult construct to measure. Self-reporting self-esteem information is problematic due to a myriad of possible contaminating variables (Wylie, 1961). Additionally, self-esteem is a variable that resists change and attempts to maintain itself, positively or negatively (Purkey, 1970). The difficulties encountered in assessing self-esteem might indicate that the study subjects were unfamiliar with the concepts involved in self-evaluation.
Observational approaches or a case study format might produce different information; however, self-report remains the best technique to measure self-esteem (Burns, 1979). With proper pre-study instruction, the population under study could be introduced to self-evaluation issues. Instruction could help them begin thinking about their self-perceptions. In this way, the actual testing would more accurately reflect self-reported self-esteem levels.

My subjective speculations remain that self-esteem is a highly critical factor in adult education particularly with the segment of the population researched in this project. I suggest that the Community College system and other agencies handling literacy development conduct more extensive class-based research in this area. Furthermore, I recommend that practitioners incorporate self-esteem enhancing activities into their curriculum. These activities can be individualized activities or group efforts. In addition to commercially available materials, teacher created ideas are often more specific to the individual class configurations. Additionally, support groups can be encouraged within the classrooms to create more supportive systems and interdependent relationships among the adults. Often, the academic skills this population lacks creates a sense of isolation and despondency. It is more encouraging to create an atmosphere that is supportive and positive in confirming the importance of how a person evaluates his/her self-worth.
The comprehensive research and resulting conclusions documenting the significance of the relationship between self-esteem and achievement coupled with rising rates of illiteracy, indicate an area of study that deserves more attention. There is a proliferation of programs designed to improve literacy rates, and these programs need more information regarding the effectiveness of instruction. Literacy programs need to be structured to meet the needs of the low level reading adult learner both cognitively and affectively. Adult educators will be better equipped to teach effectively as issues connecting success to methodology are researched and applied to practice.
REFERENCES


APPENDIX A

SELF-REPORTED STUDENT PROFILE
### Student Profile Information

**Adult Basic Education Class/Portland Community College**  
**Fall term, 1989**

**Amount of time in program**  
- **0 - 2 terms**
- **2 terms to 1 year**
- **1 - 2 years**
- **2 years +**

**Current reading level**  
- **0 - 1 grade level**
- **2 - 3 grade level**
- **4 - 5 grade level**
- **6 and higher**

**Age of student**  
- **20 - 30 years**
- **31 - 40 years**
- **41 - 50 years**
- **51 and older**

**Educational background**  
- **Stopped in grades 1 - 6**
- **Stopped in grades 7 - 12**
- **Graduated high school**
- **Grew up in another country**
- **Attended a special education program**

**Employed**  
- **Yes**
- **No**

**Receiving some type of assistance (SSI, disability, worker's compensation)**  
- **Yes**
- **No**

**Do you have any type of disability?**  
- **Yes**
- **No**

**Kinds of disabilities identified by students**  
- **Hearing-impaired**
- **Speech-impaired**
- **Mental illness**
- **Job-related illness**
- **Developmentally disabled**
- **Other**
APPENDIX B

TENNESSEE SELF CONCEPT SCALE AND ANSWER SHEET
INSTRUCTIONS

On the top line of the separate answer sheet, fill in your name and the other information except for the time information in the last three boxes. You will fill in these boxes later. Write only on the answer sheet. Do not put any marks in this booklet.

The statements in this booklet are to help you describe yourself as you see yourself. Please respond to them as if you were describing yourself to yourself. Do not omit any item. Read each statement carefully, then select one of the five responses listed below. On your answer sheet, put a circle around the response you chose. If you want to change an answer after you have circled it, do not erase it but put an X through the response and then circle the response you want.

When you are ready to start, find the box on your answer sheet marked time started and record the time. When you are finished, record the time finished in the box on your answer sheet marked time finished.

As you start, be sure that your answer sheet and this booklet are lined up evenly so that the item numbers match each other.

Remember, put a circle around the response number you have chosen for each statement.

<table>
<thead>
<tr>
<th>Completely False</th>
<th>Mostly False</th>
<th>Partly False and Partly True</th>
<th>Mostly True</th>
<th>Completely True</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

You will find these response numbers repeated at the top of each page to help you remember them.
<table>
<thead>
<tr>
<th>Item No.</th>
<th>Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I have a healthy body</td>
</tr>
<tr>
<td>3</td>
<td>I am an attractive person</td>
</tr>
<tr>
<td>5</td>
<td>I consider myself a sloppy person</td>
</tr>
<tr>
<td>19</td>
<td>I am a decent sort of person</td>
</tr>
<tr>
<td>21</td>
<td>I am an honest person</td>
</tr>
<tr>
<td>23</td>
<td>I am a bad person</td>
</tr>
<tr>
<td>37</td>
<td>I am a cheerful person</td>
</tr>
<tr>
<td>39</td>
<td>I am a calm and easygoing person</td>
</tr>
<tr>
<td>41</td>
<td>I am a nobody</td>
</tr>
<tr>
<td>55</td>
<td>I have a family that would always help me in any kind of trouble</td>
</tr>
<tr>
<td>57</td>
<td>I am a member of a happy family</td>
</tr>
<tr>
<td>59</td>
<td>My friends have no confidence in me</td>
</tr>
<tr>
<td>73</td>
<td>I am a friendly person</td>
</tr>
<tr>
<td>75</td>
<td>I am popular with men</td>
</tr>
<tr>
<td>77</td>
<td>I am not interested in what other people do</td>
</tr>
<tr>
<td>91</td>
<td>I do not always tell the truth</td>
</tr>
<tr>
<td>93</td>
<td>I get angry sometimes</td>
</tr>
</tbody>
</table>
2. I like to look nice and neat all the time .................................................. 2
4. I am full of aches and pains ................................................................. 4
6. I am a sick person ................................................................. 6
20. I am a religious person .................................................. 20
22. I am a moral failure ................................................................. 22
24. I am a morally weak person .................................................. 24
38. I have a lot of self-control .................................................. 38
40. I am a hateful person ................................................................. 40
42. I am losing my mind ................................................................. 42
56. I am an important person to my friends and family .......... 56
58. I am not loved by my family .................................................. 58
60. I feel that my family doesn't trust me .................................................. 60
74. I am popular with women .................................................. 74
76. I am mad at the whole world .................................................. 76
78. I am hard to be friendly with .................................................. 78
92. Once in a while I think of things too bad to talk about .......... 92
94. Sometimes, when I am not feeling well, I am cross .......... 94
<table>
<thead>
<tr>
<th>Item No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>I am neither too fat nor too thin</td>
</tr>
<tr>
<td>9</td>
<td>I like my looks just the way they are</td>
</tr>
<tr>
<td>11</td>
<td>I would like to change some parts of my body</td>
</tr>
<tr>
<td>25</td>
<td>I am satisfied with my moral behavior</td>
</tr>
<tr>
<td>27</td>
<td>I am satisfied with my relationship to God</td>
</tr>
<tr>
<td>29</td>
<td>I ought to go to church more</td>
</tr>
<tr>
<td>43</td>
<td>I am satisfied to be just what I am</td>
</tr>
<tr>
<td>45</td>
<td>I am just as nice as I should be</td>
</tr>
<tr>
<td>47</td>
<td>I despise myself</td>
</tr>
<tr>
<td>61</td>
<td>I am satisfied with my family relationships</td>
</tr>
<tr>
<td>63</td>
<td>I understand my family as well as I should</td>
</tr>
<tr>
<td>65</td>
<td>I should trust my family more</td>
</tr>
<tr>
<td>79</td>
<td>I am as sociable as I want to be</td>
</tr>
<tr>
<td>81</td>
<td>I try to please others, but don’t overdo it</td>
</tr>
<tr>
<td>83</td>
<td>I am no good at all from a social standpoint</td>
</tr>
<tr>
<td>95</td>
<td>I do not like everyone I know</td>
</tr>
<tr>
<td>97</td>
<td>Once in a while, I laugh at a dirty joke</td>
</tr>
<tr>
<td>Item No.</td>
<td>Statement</td>
</tr>
<tr>
<td>---------</td>
<td>-----------</td>
</tr>
<tr>
<td>8</td>
<td>I am neither too tall nor too short</td>
</tr>
<tr>
<td>10</td>
<td>I don't feel as well as I should</td>
</tr>
<tr>
<td>12</td>
<td>I should have more sex appeal</td>
</tr>
<tr>
<td>26</td>
<td>I am as religious as I want to be</td>
</tr>
<tr>
<td>28</td>
<td>I wish I could be more trustworthy</td>
</tr>
<tr>
<td>30</td>
<td>I shouldn't tell so many lies</td>
</tr>
<tr>
<td>44</td>
<td>I am as smart as I want to be</td>
</tr>
<tr>
<td>46</td>
<td>I am not the person I would like to be</td>
</tr>
<tr>
<td>48</td>
<td>I wish I didn't give up as easily as I do</td>
</tr>
<tr>
<td>62</td>
<td>I treat my parents as well as I should (Use past tense if parents are not living)</td>
</tr>
<tr>
<td>64</td>
<td>I am too sensitive to things my family says</td>
</tr>
<tr>
<td>66</td>
<td>I should love my family more</td>
</tr>
<tr>
<td>80</td>
<td>I am satisfied with the way I treat other people</td>
</tr>
<tr>
<td>82</td>
<td>I should be more polite to others</td>
</tr>
<tr>
<td>84</td>
<td>I ought to get along better with other people</td>
</tr>
<tr>
<td>96</td>
<td>I gossip a little at times</td>
</tr>
<tr>
<td>98</td>
<td>At times I feel like swearing</td>
</tr>
<tr>
<td>Item No.</td>
<td>Item</td>
</tr>
<tr>
<td>---------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>13</td>
<td>I take good care of myself physically</td>
</tr>
<tr>
<td>15</td>
<td>I try to be careful about my appearance</td>
</tr>
<tr>
<td>17</td>
<td>I often act like I am “all thumbs”</td>
</tr>
<tr>
<td>31</td>
<td>I am true to my religion in my everyday life</td>
</tr>
<tr>
<td>33</td>
<td>I try to change when I know I’m doing things that are wrong</td>
</tr>
<tr>
<td>35</td>
<td>I sometimes do very bad things</td>
</tr>
<tr>
<td>49</td>
<td>I can always take care of myself in any situation</td>
</tr>
<tr>
<td>51</td>
<td>I take the blame for things without getting mad</td>
</tr>
<tr>
<td>53</td>
<td>I do things without thinking about them first</td>
</tr>
<tr>
<td>67</td>
<td>I try to play fair with my friends and family</td>
</tr>
<tr>
<td>69</td>
<td>I take a real interest in my family</td>
</tr>
<tr>
<td>71</td>
<td>I give in to my parents (Use past tense if parents are not living)</td>
</tr>
<tr>
<td>85</td>
<td>I try to understand the other fellow’s point of view</td>
</tr>
<tr>
<td>87</td>
<td>I get along well with other people</td>
</tr>
<tr>
<td>89</td>
<td>I do not forgive others easily</td>
</tr>
<tr>
<td>99</td>
<td>I would rather win than lose in a game</td>
</tr>
<tr>
<td>Item No.</td>
<td>Question</td>
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<td>---------</td>
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<td>14</td>
<td>I feel good most of the time</td>
</tr>
<tr>
<td>16</td>
<td>I do poorly in sports and games</td>
</tr>
<tr>
<td>18</td>
<td>I am a poor sleeper</td>
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<td>32</td>
<td>I do what is right most of the time</td>
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<td>34</td>
<td>I sometimes use unfair means to get ahead</td>
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<td>36</td>
<td>I have trouble doing the things that are right</td>
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<td>I solve my problems quite easily</td>
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<td>I change my mind a lot</td>
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<td>54</td>
<td>I try to run away from my problems</td>
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<td>I do my share of work at home</td>
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<td>I quarrel with my family</td>
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<td>I do not act like my family thinks I should</td>
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<td>86</td>
<td>I see good points in all the people I meet</td>
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<td>88</td>
<td>I do not feel at ease with other people</td>
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<tr>
<td>90</td>
<td>I find it hard to talk with strangers</td>
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<td>100</td>
<td>Once in a while I put off until tomorrow what I ought to do today</td>
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<th>Partly True</th>
<th>Mostly False</th>
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APPENDIX C

TEST-RETEST RELIABILITY OF MAJOR TSCS SCORES
### Test-Retest Reliability of the Major TSCS Scores

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<tr>
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*Note: From Fitts (1965).*
APPENDIX D

BRIGANCE COMPREHENSIVE INVENTORY OF BASIC SKILLS
COMPREHENDS AT PRIMER LEVEL

**SKILL:** Reads at primer level with comprehension.

**STUDENT RECORD BOOK:** Page 8.

**ASSESSMENT METHODS:** (See pages 77 and 78.)
1. Individual reads the story silently and answers each question read by the examiner.
2. Nonreader listens to the story and answers each question read by the examiner.

**MATERIAL:** S-81.

**DISCONTINUE:** Your discretion, or after failing to score with at least 80% comprehension accuracy on Form A or Form B for two consecutive levels.

**TIME:** Your discretion.

**ACCURACY:** At least 4/5 (80%) or 7/10 (70%) comprehension accuracy for each grade level. Student responses may vary. Give credit for any reasonable response. Students are not required to include every possible detail in their answer. (See Introduction, page 78, for discussion of accuracy and validity.)

**A. OPTIONAL QUESTIONS**
1. How do you think Jin's turtle hides?
2. A turtle carries its house on its back. How do you think that helps a turtle?
3. Why do you think turtles can't jump?

**B. OPTIONAL QUESTIONS**
1. Do you think Gus was kind to his dog?
2. How do you think Gus's dog feels now?
3. How do you think Gus feels now?

**QUESTIONS AND ANSWERS FOR S-81-FORMS A AND B**

**A.**
1. What can Jin's surprise do?
   (It can walk, it can hide)
2. What can't Jin's surprise do?
   (It cannot jump)
3. What color is Jin's surprise?
   (green)
4. Where is your back?
   (The student will point to his or her back)
5. What is Jin's surprise?
   (Jin's surprise is a turtle)

**B.**
1. At first, what did Gus's dog want to do?
   (The dog wanted to hide)
2. When his dog wanted to jump, what did Gus say?
   (Gus said, "Sit down.")
3. When did Gus tell his dog to go away?
   (When his dog wanted to play)
4. What did Gus want to do at the end of the story?
   (Gus wanted to play)
5. What had Gus's dog done at the end of the story?
   (The dog had gone away)
A.
Jin has a surprise.
It can walk.
It can hide.
But it cannot jump.
Her surprise is green.
It has a house on its back.
Do you know what Jin has?
Jin has a little turtle.

B.
His dog wanted to hide.
Gus said, "Not now."
His dog wanted to jump.
Gus said, "Sit down."
His dog wanted to play.
Gus said, "Go away."
Then, Gus wanted to play.
His dog had gone away.
COMPREHENDS AT LOWER FIRST-GRADE LEVEL

SKILL: Reads at lower first-grade level with comprehension.

STUDENT RECORD BOOK: Page 8.

ASSESSMENT METHOD: (See pages 77 and 78)
1. Individual reads the story silently and answers each question read by the examiner.
2. Nonreader listens to the story and answers each question read by the examiner.

MATERIAL: S-82.

DISCONTINUE: Your discretion, or after failing to score with at least 80% comprehension accuracy on Form A or Form B for two consecutive grade levels.

TIME: Your discretion.

ACCURACY: At least 4/5 (80%) or 7/10 (70%) comprehension accuracy for each grade level. Student responses may vary. Give credit for any reasonable response. Students are not required to include every possible detail in their answer. (See Introduction, page 78, for discussion of accuracy and validity.)

A. OPTIONAL QUESTIONS
1. Where do you think Lil plays with her boat?
2. Why do you think Lil wanted to paint her boat?
3. What else could Lil do to make her boat look new?

B. OPTIONAL QUESTIONS
1. How do you think Sam got in the tree?
2. How do you think Sam was feeling when he was in the tree?
3. How do you think Ann will help Sam?

QUESTIONS AND ANSWERS FOR S-82—FORMS A AND B

A.
1. What does Lil have?
   (a boat)
2. What does Lil's boat look like?
   (Her boat looks old, yellow, little.)
3. Who will help Lil paint her boat?
   (her mother)
4. What color will they paint Lil's boat?
   (blue)
5. After the boat is painted, how will it look?
   (It will look new)

B.
1. Where was Sam?
   (Sam was up in a tree)
2. What did Ann want Sam to do?
   (Ann wanted Sam to jump down)
3. Why does Sam think that he can't jump down?
   (Sam thinks that he is too little)
4. What does the word always mean in this story?
   (forever)
5. What will Ann do?
   (She will help Sam get down from the tree)

COMPREHENDS AT LOWER FIRST-GRADE LEVEL

DIRECTIONS: (This assessment is made by asking the student to read silently one of the two stories, Form A or Form B, on S-82 for the lower first-grade level. Then the student will listen to five questions and answer the questions orally with at least 80% comprehension accuracy.)

Point to the story you want the student to read and
Say: I want you to read this story silently. After you have read the story, I will ask you some questions. Tell me the best answer to each question.

If necessary, give help reading the proper nouns.

If you wish to confirm the validity of the results of administering one Form, use the alternate Form. (See page 78 for further discussion of accuracy and validity.)

Continue the assessment at higher or lower grade levels until you determine the highest grade level at which the student can read with 80% comprehension accuracy.

(E-3)
A.
Lil has a little yellow boat.
She likes to play with her boat,
but it looks old.
Her mother will help her paint the boat.
They will paint it blue.
It will look new.

B.
Sam was up in a tree.
"Sam, jump down," said Ann.
Sam said, "I can't.
I am too little.
I will always be up in this tree."
"No, you won't," said Ann.
"I will help you get down."
COMPREHENDS AT UPPER FIRST-GRADE LEVEL

SKILL: Reads at upper first-grade level with comprehension.

STUDENT RECORD BOOK: Page 8

ASSESSMENT METHODS: (See pages 77 and 78.)
1. Individual reads the story silently and answers each question read by the examiner.
2. Nonreader listens to the story and answers each question read by the examiner.

MATERIAL: S-83.

DISCONTINUE: Your discretion, or after failing to score with at least 80% comprehension accuracy on Form A or Form B for two consecutive levels.

TIME: Your discretion.

ACCURACY: At least 4/5 (80%) or 7/10 (70%) comprehension accuracy for each grade level. Student responses may vary. Give credit for any reasonable response. Students are not required to include every possible detail in their answer. (See Introduction, page 78, for discussion of accuracy and validity.)

A. OPTIONAL QUESTIONS
1. Do you think Pete's hair will always look funny? Why or why not?
2. How do you think Pete feels?
3. What kind of person do you think Pete's sister is?

B. OPTIONAL QUESTIONS
1. Why do you think Gert was not happy?
2. What do you think Gert will do?
3. What do you think the rabbit will do?

DIRECTIONS: (This assessment is made by asking the student to read silently one of the two stories, Form A or Form B, on S-83 for the upper first-grade level. Then the student will listen to five questions and answer the questions orally with at least 80% comprehension accuracy. Point to the story you want the student to read and say: I want you to read this story silently. After you have read the story, I will ask you some questions. Tell me the best answer to each question.

If necessary, give help reading the proper nouns.
If you wish to confirm the validity of the results of administering one Form, use the alternate Form. (See page 78 for further discussion of accuracy and validity.)

Continue the assessment at higher or lower grade levels until you determine the highest grade level at which the student can read with 80% comprehension accuracy.

QUESTIONS AND ANSWERS FOR S-83—FORMS A AND B

A.  
1. Who cut Pete's hair?  
   (Pete's dad)
2. Why doesn't Pete like his haircut?  
   (He thinks it looks funny.)
3. When will Pete put on a hat?  
   (When he goes to school)
4. Why will Pete put on a hat?  
   (The hat will hide Pete's haircut)
5. What does the word 'hide' mean?  
   (To put out of sight)

B.  
1. What time of day was it in the story?  
   (Morning)
2. Where was the rabbit going?  
   (For a morning hop)
3. What was Gert doing when the rabbit saw her?  
   (Gert was sleeping under a tree)
4. Why did the rabbit hop on Gert's foot?  
   (The rabbit wanted to surprise Gert)
5. Show me what the word 'hop' means.  
   (The student will hop.)
A.

Dad cut Pete's hair.
Pete does not like his haircut.
He thinks it looks funny.
His sister laughed at his haircut.
When Pete goes to school,
he will put on a hat.
The hat will hide Pete's haircut.

B.

A rabbit went for a morning hop.
The rabbit saw Gert, the bear.
Gert was sleeping under a tree.
The rabbit wanted to surprise Gert.
The rabbit hopped on Gert's foot.
Gert was surprised.
She was not happy.
A.

DIRECTIONS: Read the story below. Then, answer each question about the story by circling the letter of the best answer.

Pam had been saving her pennies. She wanted to buy a green balloon that she had seen in the store.

Pam counted her pennies one by one. She had five pennies. She needed three more pennies to buy the balloon.

Pam put her hand into her pocket. Then she laughed. There were three more pennies in her pocket. Now she could go to the store and buy the green balloon.

1. What did Pam want to buy?
   a. a green balloon
   b. a green frog
   c. a pocket

2. Which happened first?
   a. Pam laughed.
   b. Pam counted her pennies
   c. Pam put her hand in her pocket.

3. Why did Pam put her hand in her pocket?
   a. to find a balloon
   b. to count her pennies
   c. to find more pennies

4. To buy something is to
   a. laugh about something.
   b. count things.
   c. pay for something.

5. A good name for this story would be
   a. Pennies to Buy a Balloon.
   b. Counting Frogs One by One.
   c. A Balloon in the Pocket.

B.

DIRECTIONS: Read the story below. Then, answer each question about the story by circling the letter of the best answer.

Dad said, "You know that we cannot get a dog for Beth. This house is too little for an animal. We can have a pet when we move to a bigger house."

Scott knew his dad was right. Scott had wanted to get a dog for his sister. Tomorrow would be her birthday.

Scott thought of another surprise. He would get a toy dog for Beth. Dad couldn't say "no" to that kind of a pet.

1. At first, what did Scott want to get for Beth?
   a. He wanted to get her a toy.
   b. He wanted to get her a dog.
   c. He wanted to get her a doll house.

2. Why did Dad say they couldn't get a dog?
   a. The pet would eat too much.
   b. Scott's dad didn't like pets.
   c. The house was too little.

3. Why did Scott want to get a dog for Beth?
   a. Beth was sad.
   b. Tomorrow would be her birthday.
   c. Beth asked Scott to get her a surprise.

4. Another word for pet is
   a. animal.
   b. house.
   c. birthday.

5. A good name for this story would be
   a. Moving to a New House.
   b. Scott's Birthday Party.
   c. Thinking of a Surprise for Beth.
A.

DIRECTIONS: Read the story below. Then, answer each question about the story by circling the letter of the best answer.

When Jed was walking in the woods, he heard a strange noise. "Could it be a bear?" thought Jed as he looked around. Jed was afraid of bears. Jed heard the noise again. This time Jed was not afraid because he saw the animal that had made the noise. The animal was not a bear. Jed saw a squirrel jumping from tree to tree. The squirrel was making nuts fall from the branches.

1. Where was Jed?
   a. Jed was in town
   b. Jed was in the woods
   c. Jed was at home

2. Which happened first?
   a. Jed saw a squirrel
   b. Jed stopped and looked around
   c. Jed heard a strange noise

3. What did Jed think made the noise?
   a. a bird
   b. a cat
   c. a bear

4. A noise is something you can
   a. hear
   b. see
   c. eat

5. What was making the nuts fall from the branches?
   a. a squirrel
   b. a bear
   c. a bird

B.

DIRECTIONS: Read the story below. Then, answer each question about the story by circling the letter of the best answer.

Kim lived with her Uncle Cal. There was a high stone wall around their yard. Uncle Cal had often told Kim not to climb over the wall.

One morning Kim was playing by herself in the yard. She threw a ball behind her, and it went over the wall. Kim went into the house to ask her uncle to help her find the ball. Uncle Cal was happy. Kim had remembered not to climb over the wall.

1. Which happened first?
   a. Kim threw a ball behind her
   b. Uncle Cal told Kim not to climb over the wall
   c. The ball went over the wall

2. Where was Kim playing?
   a. in the house
   b. in the street
   c. in the yard

3. Why did Kim go into the house?
   a. to throw the ball
   b. to ask her uncle to help her find the ball
   c. to find a new ball

4. The word often means
   a. many times
   b. never
   c. sometimes

5. A good name for this story would be
   a. Remembering What Uncle Cal Said
   b. Finding a New Friend
   c. Playing Ball in the House
A.

DIRECTIONS: Read the story below. Then, answer each question about the story by circling the letter of the best answer.

Dr. Cruz is a different kind of doctor. She works in a hospital, but she does not take care of people. Dr. Cruz takes care of pets in an animal hospital. Sometimes Dr. Cruz takes care of animals at the zoo. Her patients at the zoo are bears, lions, monkeys, and tigers.

Dr. Cruz helps sick pets get well. She even sees pets that are not sick. Her job is to help keep animals healthy.

1. Dr. Cruz works in
   a. school.
   b. store.
   c. forest.
   d. hospital.

2. Dr. Cruz takes care of
   a. children.
   b. animals.
   c. rocks.
   d. doctors.

3. When Dr. Cruz works at the zoo,
   a. she takes care of bears and other animals.
   b. she paints the animal cages.
   c. she feeds peanuts to the monkeys.
   d. she buys balloons.

4. A healthy animal is
   a. large.
   b. well.
   c. sick.
   d. hungry.

5. This story is mostly about
   a. animals at the zoo.
   b. sick animals.
   c. an animal doctor.
   d. an animal hospital.

B.

DIRECTIONS: Read the story below. Then, answer each question about the story by circling the letter of the best answer.

This was not the first time Hans had gone mountain climbing. He and his friend Jake had enjoyed mountain climbing many times before.

Jake was a strong, quick climber. Hans was a good climber, too, but he began to get tired. He could not keep up with Jake.

As Hans hurried to catch up, he slipped on a rock. Hans began sliding toward the cliff, but Jake caught him before he slid over the edge.

1. Jake was
   a. a tired, slow climber.
   b. a lazy, mean friend.
   c. a strong, quick climber.
   d. angry with Hans.

2. Why couldn't Hans keep up with Jake?
   a. Hans stopped to eat lunch.
   b. Hans was a poor climber.
   c. Hans had a stone in his shoe.
   d. Hans began to get tired.

3. To hurry means
   a. to go quickly.
   b. to go slowly.
   c. to stop.
   d. to grow larger.

4. What happened first?
   a. Hans slipped on a rock.
   b. Hans hurried to catch up with Jake.
   c. Hans began sliding over the edge of the cliff.
   d. Jake caught Hans.

5. What stopped Hans from sliding over the edge of the cliff?
   a. Hans held on to a branch.
   b. Hans held on to a rock.
   c. Jake caught Hans.
   d. Hans crawled into a hole.
A.

DIRECTIONS: Read the story below. Then, answer each question about the story by circling the letter of the best answer.

Kurt had gone fishing twice last week, but he hadn't caught a single fish. As he carried his fishing pole to the lake, he knew his luck had changed. Today he would catch something.

As soon as his hook disappeared into the water, he felt a tug. Something heavy was on his hook, so he quickly pulled in his line. Kurt had caught an old boot filled with water!

1. When Kurt had gone fishing last week,
   a. he had caught two fish.
   b. he hadn't caught a single fish.
   c. he had lost his new fishing pole.
   d. he had fallen into the lake.

2. What happened first?
   a. Kurt felt a tug on his hook.
   b. Kurt carried his fishing pole to the lake.
   c. Kurt's hook disappeared into the water.
   d. Kurt caught a big boot filled with water.

3. Why did Kurt pull in his line?
   a. Something heavy was on his line.
   b. He had caught a huge fish.
   c. His hook was caught in the mud.
   d. He was tired and wanted to go home.

4. The word disappear means
   a. to pull in.
   b. to get caught.
   c. to pass out of sight.
   d. to come up for air.

5. The best name for this story would be
   a. A Muddy Fishing Trip.
   c. Fishing with a Friend.
   d. Kurt's Big Catch.

B.

DIRECTIONS: Read the story below. Then, answer each question about the story by circling the letter of the best answer.

Carlos had wanted to ride in the rodeo since his ninth birthday. Now that he was twelve, Carlos could finally ride.

As Carlos sat waiting for his turn, his heart began to pound. He had looked forward to this day, but now Carlos was afraid.

The gate opened and his horse began to buck, but Carlos held on tightly. When his ride was over, Carlos was eager to get down from the horse.

1. How old was Carlos when he rode in the rodeo?
   a. nine
   b. eight
   c. twelve
   d. ten

2. What was Carlos waiting for?
   a. his turn to ride
   b. his horse to buck
   c. his birthday
   d. his mother

3. To pound means
   a. to slow down.
   b. to beat hard.
   c. to slide.
   d. to get fat.

4. Which happened first?
   a. His horse began to buck.
   b. His heart began to pound.
   c. The gate opened.
   d. His ride was over.

5. The best name for this story would be
   a. The Ninth Birthday
   b. Buying a Horse for Carlos
   c. Falling Off a Bucking Horse
   d. Riding in the Rodeo.
A.
DIRECTIONS: Read the story below. Then, answer each question about the story by circling the letter of the best answer.

Charlotte decided to enter a race for beginning runners. For months, Charlotte ran every day to improve her pace and to increase her distance. Charlotte felt prepared as she crouched at the starting line. When she heard the signal, she ran as fast and as hard as she could. Charlotte grinned as she ran across the finish line. Although she hadn’t won the race, she knew that she had done her best.

1. How did Charlotte get ready for the race?
   a. She read a lot of books about running.
   b. She talked to many friends who were runners.
   c. She ran every day.
   d. She got a lot of rest.

2. Why did Charlotte run every day?
   a. to win a blue ribbon at the race
   b. to improve her pace and increase her distance
   c. to lose weight
   d. to get to school on time

3. Which happened first?
   a. Charlotte crouched at the starting line.
   b. Charlotte heard the signal.
   c. Charlotte decided to enter a race.
   d. Charlotte crossed the finish line.

4. The word crouch means
   a. to have one foot in front of the other.
   b. to grumble.
   c. a piece of furniture.
   d. to stoop down with bent knees.

5. Why did Charlotte grin when she crossed the finish line?
   a. She knew she had done her best.
   b. She knew she had won the race.
   c. Someone had told her a funny joke.
   d. She had taken a short cut.

B.
DIRECTIONS: Read the story below. Then, answer each question about the story by circling the letter of the best answer.

Nick grabbed the basketball and started dribbling to the opposite end of the court. His team needed two points, and it was up to Nick to score them. As Nick approached the basket, he heard the thundering cheers of the crowd. Nick had to make this shot because everyone was depending on him. He took a deep breath to steady himself. Then, Nick took a shot. The ball went into the basket.

1. What happened first?
   a. Nick took a deep breath.
   b. Nick dribbled to the opposite end of the court.
   c. Nick grabbed the basketball.
   d. Nick approached the basket.

2. What did the crowd sound like?
   a. angry bears
   b. thunder
   c. a hall storm
   d. buzzing bees

3. Why did Nick feel that he had to make this shot?
   a. His parents would be disappointed if he didn’t.
   b. Everyone was depending on him.
   c. This was the last time he would ever play basketball.
   d. He would be taken off the team if he didn’t.

4. To approach means
   a. to try something.
   b. to leave.
   c. to discover.
   d. to come near.

5. The main idea of this story is
   a. Nick scored the points that his team needed.
   b. Nick heard the fans cheering.
   c. Nick hesitated by taking a deep breath.
   d. Nick had never scored in a basketball game before.
A.

DIRECTIONS: Read the story below. Then, answer each question about the story by circling the letter of the best answer.

Meg had intended to finish her math project tonight, but her work was interrupted by a phone call. Meg's friend Sushi was calling to invite Meg to a play. The play would begin at eight o'clock.

Meg glanced at her watch. She knew she could not complete her project before the play began. Meg decided not to go with Sushi. Missing the play was disappointing. Yet finishing her project on time was satisfying for Meg.

1. What kind of project was Meg working on?
   a. science
   b. math
   c. history
   d. geography

2. Why was Meg's work interrupted?
   a. She went to a play.
   b. Her watch stopped.
   c. She received a phone call.
   d. It was time to eat dinner.

3. Why did Meg decide not to go with Sushi?
   a. Meg had already accepted an invitation from another friend.
   b. Meg knew she could not complete her project before the play began.
   c. Meg's mother told Meg that she could not go to the play.
   d. Meg had heard that the play was not good.

4. The word intended means
   a. to announce.
   b. to invite.
   c. to finish.
   d. to mean to.

5. The main idea of this story is
   a. Meg was having difficulty learning math.
   b. Meg did not want to go to the play with Sushi.
   c. Meg did her work instead of going to the play.
   d. Meg wished that she didn't have a telephone.

B.

DIRECTIONS: Read the story below. Then, answer each question about the story by circling the letter of the best answer.

The Cougars had a reputation for working well together as a football team. But, in this game, the team was not performing well. They fumbled the ball time after time because they were so tense. The players argued among themselves. They even argued with their coach.

Going into the last quarter, they needed twelve points to win. The team looked discouraged. They did not have a winning attitude.

1. What was the team's reputation?
   a. The players argued among themselves.
   b. The players worked well together.
   c. The team did not have a winning attitude.
   d. The players were clumsy.

2. Why did the Cougars fumble the ball so many times?
   a. The players were angry with their coach.
   b. The players would rather have been playing baseball.
   c. The players did not know how to play football.
   d. The players were tense.

3. When did the team look discouraged?
   a. at the beginning of the last quarter
   b. when they argued among themselves
   c. when they fumbled the ball
   d. when they argued with their coach

4. In this story, the word tense means
   a. relaxed.
   b. furious.
   c. nervous.
   d. cautious.

5. The main idea of this story is
   a. the players argued with their coach.
   b. the Cougars' reputation was strengthened by this game.
   c. the Cougars' reputation was weakened by this game.
   d. the Cougars scored fourteen points to win the game.
A. DIRECTIONS: Read the story below. Then, answer each question about the story by circling the letter of the best answer.

Bernie has an unusual job. He maintains the monument that is carved on Mount Rushmore. The faces of four of our past presidents are sculpted on this mountain. Bernie does a fantastic job of filling in the cracks on these gigantic faces. If Bernie had a fear of heights, he would have difficulty accomplishing his task. His job requires that he hang from a rope three hundred feet above the ground.

1. What is Bernie’s job?
   a. He is president of the United States.
   b. He carves faces on Mount Rushmore.
   c. He maintains the monument on Mount Rushmore.
   d. He is a mountain climber.

2. How does Bernie do his job?
   a. He fills in the cracks on the gigantic faces.
   b. He takes photographs of the gigantic faces.
   c. He carves the gigantic faces.
   d. He paints the gigantic faces.

3. Which happened first?
   a. Bernie had trouble accomplishing his task.
   b. Bernie maintained the monument.
   c. Bernie hung from a rope three hundred feet above the ground.
   d. Gigantic faces were carved on Mount Rushmore.

4. The word gigantic means
   a. made of granite.
   b. owned by a giant.
   c. enormous.
   d. mechanical.

5. The best title for this story would be
   b. Maintaining Mount Rushmore.
   c. A Fear of Heights.
   d. Trouble Accomplishing a Task.

B. DIRECTIONS: Read the story below. Then, answer each question about the story by circling the letter of the best answer.

There have been many attempts in the United States to convert to the metric system. This system is used in most countries throughout the world. Yet, the American public has not made the conversion quickly or easily.

Many schools teach metrics. Still some people feel that metrics have been placed “on the back burner.” Although we are promoting the knowledge of this system, we should be using it as well.

1. To whom have the attempts been directed?
   a. most countries throughout the world
   b. the American public
   c. hospital employees
   d. state employees

2. Who is using the metric system now?
   a. most countries throughout the world
   b. the American public
   c. kitchen employees
   d. no one.

3. In this story, the word conversion means
   a. conversation.
   b. to change to a new system.
   c. weakening your standards.
   d. when two things meet.

4. The saying placed “on the back burner” means
   a. cooked at a low temperature.
   b. to be dangerous.
   c. to be invisible.
   d. to postpone until later.

5. The main idea of this story is
   a. the American public uses the metric system
   b. our schools have decided not to use the metric system.
   c. it should be using the metric system in this country.
   d. metrics should only be used in the kitchen.
A. DIRECTIONS: Read the newspaper article below. Then, answer each question about the article by circling the letter of the best answer.

If you parked illegally at a "Time Expired" meter downtown this week but didn't get a ticket, you may have thought that this was your lucky week. However, the real reason you didn't receive a ticket was that the meter monitors were out of ticket pads.

You may have seen the meter monitors writing, but they were not writing on ticket pads. The monitors spent the past week taking a survey of downtown parking.

Next week, if you park at a meter that reads "Time Expired," you can expect a ticket. A new supply of ticket pads arrived this afternoon.

1. Why weren't parking tickets given out this week?
   a. None of the meters read "Time Expired."
   b. The meters were broken.
   c. The meter monitors did not have ticket pads.
   d. Meter monitors were busy taking a survey.

2. What will happen if you park at a "Time Expired" meter next week?
   a. Nothing will happen.
   b. You will probably get a ticket.
   c. A meter monitor will ask you to move.
   d. Your car will be towed.

3. Which happened first?
   a. The meter monitors were out of ticket pads.
   b. Downtown parking was surveyed.
   c. The meter monitors could not write tickets.
   d. A new supply of ticket pads arrived.

4. In this article, the word illegally means
   a. incorrectly.
   b. forbidden by law.
   c. permitted by law.
   d. carelessly.

5. The main idea of this article is
   a. illegal parking downtown is increased.
   b. meters were replaced downtown.
   c. illegal parkers were lucky this week.

B. DIRECTIONS: Read the newspaper article below. Then, answer each question about the article by circling the letter of the best answer.

While working in her garden last week, Mrs. Olga Hennan dug up seven eggs. She was curious about what kind of eggs they were, so she took them to the city zoo and inquired. The curator said they were probably snake eggs, but he would exhibit them as "mystery" eggs until they hatched.

The curator said that if the eggs were snake eggs, the baby snakes would make slits in their shells when they were ready to hatch. This morning spectators observed slits beginning to appear in the egg membranes. Before too long, a baby snake wiggled and struggled out of each shell.

1. Where were the "mystery" eggs found?
   a. In Mrs. Hennan's house.
   b. In a snake pit.
   c. In a garden.
   d. At the zoo.

2. Why did Mrs. Hennan bring the eggs to the curator?
   a. She was afraid of snakes.
   b. She didn't want spectators in her garden.
   c. She wanted the curator to identify the eggs.
   d. She knew the eggs were about to hatch.

3. Which happened last?
   a. The eggs were placed on exhibit.
   b. The baby snakes crawled out of their shells.
   c. The eggs were taken to the zoo.
   d. Spectators observed slits appearing in the eggs.

4. In this article, the word observed means
   a. watched closely.
   b. made comments.
   c. made difficult to see.
   d. seemed ridiculous.

5. The main idea of this article is
   a. a spectator found seven snake eggs.
   b. spectators observed chicken egg hatch.
   c. a curator exhibited snake eggs at a museum.
   d. snakes hatched from eggs found in a garden.
A.

DIRECTIONS: Read the article below. Then, answer each question about the article by circling the letter of the best answer.

City Hall has been flooded with letters concerning several of the vacant lots downtown. These areas are known among city officials as "dirty lots." Covered with high weeds, brush, and dumped garbage, these areas have become fire hazards and even harbor snakes and rats.

The passage of a stricter ordinance allows city personnel to clean up these sites. Each lot owner will be charged up to five hundred dollars for the service. Administrator Penny Malter has said that the lot owners will be given a thirty-day notice to clean up their property. If the owners don't take action, the ordinance will be enforced.

1. City Hall has been flooded with
   a. water from a rainstorm.
   b. thirty-day notices to clean up dirty lots.
   c. letters concerning vacant lots.
   d. letters stating concern about the new ordinance.

2. A stricter ordinance was passed because
   a. owners were not paying the city for cleaning their lots.
   b. owners were not taking care of their property.
   c. owners were given a thirty-day notice.
   d. the ordinance was not being enforced.

3. Which would happen first?
   a. The owner will be given a thirty-day notice.
   b. City personnel will clean the "dirty lot."
   c. The owner will be charged for having city personnel clean the "dirty lot."
   d. A stricter ordinance will be passed.

4. In this article, the word ordinance means
   a. order or regulation.
   b. orderly and clean.
   c. discipline or enforce.
   d. fee the owner pays.

5. The main idea of this article is
   a. "dirty lots" will be cleaned.
   b. lot owners promote passage of stricter ordinance.
   c. all owners must pay to have their lots cleaned.
   d. many City Hall officials are given a thirty-day notice.

B.

DIRECTIONS: Read the article below. Then, answer each question about the article by circling the letter of the best answer.

Temperatures are predicted to rise above 90° F in the next few days. It is important for you to drink plenty of fluids. Your body’s air-conditioning system works by causing your sweat glands to produce perspiration. When the perspiration evaporates from the surface of your skin, your skin becomes cooler.

Perspiring causes a loss of body fluids. This loss may decrease the blood volume in the circulatory system. When there is less blood for the heart to pump to the vital organs, fainting or heart attack may result. Drinking several glasses of water or juice will help prevent these problems.

1. Your body's air-conditioning system does not work well
   a. if the temperature is below 90° F.
   b. unless you drink plenty of fluids.
   c. if you perspire.
   d. if blood is pumped to the vital organs.

2. Your body is cooled by
   a. a decrease in blood volume.
   b. the heart pumping blood to the vital organs.
   c. perspiration evaporating from the skin.
   d. temperatures above ninety.

3. Which would happen first?
   a. Blood volume in the circulatory system decreases.
   b. You may have a heart attack.
   c. Sweat glands produce perspiration.
   d. The volume of blood pumped to the vital organs decreases.

4. In this article, the word vital means
   a. essential.
   b. unimportant.
   c. smaller.
   d. unhealthy.

5. What is the main idea of this article?
   a. Unusual temperatures are reported for this time of year.
   b. Your body is cooled by your circulatory system.
   c. When temperatures rise, stay inside an air-conditioned building.
   d. Drinking liquids helps your body adjust to hot weather.
A. 

DIRECTIONS: Read the article below. Then, answer each question about the article by circling the letter of the best answer.

Today marks another flight for the space shuttle Columbia. The Columbia, the first reusable space vehicle, is almost as tall as a twenty-story building. The spacecraft weighs 45 million pounds when fueled and fully loaded.

The astronauts who are operating the craft on this seven-day mission plan to orbit the earth about 115 times. This flight is scheduled to last twice as long as the Columbia's previous missions.

One goal of this mission is to measure the spacecraft's resistance to extreme temperatures. Also, the astronauts are testing the ability of a fifty-foot mechanical arm to move objects into and out of the spacecraft.

1. What will be the length of this flight?
   a. seven days
   b. a month
   c. three weeks
   d. four days

2. What is the mechanical arm expected to do?
   a. orbit the earth 115 times
   b. transfer objects into and out of the spacecraft
   c. resist extreme temperatures
   d. provide fuel for the spacecraft

3. Columbia's earlier missions have been
   a. the same length as this flight
   b. longer than this flight
   c. shorter than this flight
   d. cancelled due to poor weather

4. In this article, resistance means
   a. the ability to withstand
   b. a frictional force against
   c. the smallest quantity
   d. the ability to conceal

5. The best title for this article would be
   a. Spacecraft Weighs 45 Million Pounds
   b. Reusable Spacecraft Makes Another Flight
   c. Spacecraft Resists to Extreme Temperatures
   d. Mechanical Arm Moves Material In and Out of Spacecraft

B. 

DIRECTIONS: Read the article below. Then, answer each question about the article by circling the letter of the best answer.

When Mike Palmer was in the military service five years ago, he contracted a virus that affected his heart. After several months in the hospital, he was given a medical discharge.

Six months later, physicians warned Mike that his life expectancy would be reduced unless he had a heart transplant. Mike agreed to the procedure and received a new heart.

For the last three years, Mike has been swimming and walking many miles to regain and improve his strength. Next week he is scheduled to begin a thousand mile bicycle marathon, riding about seventy miles a day, to raise money for the local heart association.

1. What caused Mike's heart problem?
   a. He had a virus
   b. He swam and ran too far
   c. He had a heart transplant
   d. He was in a marathon

2. Life expectancy means
   a. the expectations that someone has for his or her life
   b. the quality of someone's life
   c. the number of years someone is expected to live
   d. a medical term related to the heart

3. Which happened last?
   a. Mike had a heart transplant
   b. Mike walked many miles to regain his strength
   c. Mike contacted a virus
   d. Mike was given a medical discharge

4. How will Mike raise money for the local heart association?
   a. by having a heart transplant
   b. by riding in a bicycle marathon
   c. by regaining and improving his strength
   d. by receiving a medical discharge

5. How far will Mike ride each day?
   a. fifty miles
   b. sixty miles
   c. seventy miles
   d. eighty miles
APPENDIX E

DEMOGRAPHIC SURVEY
Age ______

Sex  (M)  or  (F)  Circle one.

What was the last grade you finished in school?_______

What grade in school did your parents finish?
   Mother ____________
   Father ____________

Do you work?  (yes)  or  (no)  Circle one.

If you work, what kind of work do you do?

If you work, do you work part time or full time?
   (part time)  20 hours a week or less.
   (full time)  40 hours a week or more.
APPENDIX F

INFORMED CONSENT
INFORMED CONSENT

I, __________________, agree to participate in the research project investigating reading comprehension and self esteem conducted by Judy Heumann.

I understand that this study involves:

1. attending the ABE class at Portland Community College at SE Center, Monday through Friday from 9:00 to 12:00 at least 60% of the Fall term, 1989.

2. taking the Brigance reading comprehension test and the Tennessee Self Concept Scale at the beginning and at the end of the term.

3. filling out a demographic survey which will ask about my age, sex, last grade of school completed and whether I work.

It has been explained to me that the purpose of the study is to learn if there is a relationship between how a person feels about him or herself and how much their reading improves.

I may not receive any direct benefit from participation in this study but my participation may help teachers in the future to know more about teaching adults how to read.

Judy has offered to answer any questions I may have about the study and what I need to do for her study. I understand that all information I give will be kept confidential and that my name will not be used.

I understand that I am free to not participate in this study at any time. If I chose not to participate, this will not affect my status as a student in this class. If I decide not to participate, then I can turn in the study materials unmarked.

I have read and I understand this information.

Date __________________ Signature __________________________

If you have problems due to participation in this study, please contact the secretary of the Human Subjects Research and Review Committee, Office of Grants and Contracts, 303 Cramer Hall, Portland State University, 464-3417.