Order Number 9423715

Some construct validation evidence for two new measures of self-determination

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Wayne State University, 1994

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SOME CONSTRUCT VALIDATION EVIDENCE FOR TWO NEW MEASURES OF SELF-DETERMINATION

by

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DISSERTATION

Submitted to the Graduate School

of Wayne State University,

Detroit, Michigan

in partial fulfillment of the requirements

for the degree of

DOCTOR OF PHILOSOPHY

1994

MAJOR: EVALUATION AND RESEARCH
(Education)

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3/7/94

DEDICATION

This dissertation is dedicated to my husband Marvin, who provided all the support, encouragement, and love I needed; my daughter Eve, who at two years of age learned the real meaning of patience; and my mother Denotra, who never stopped praying.

All praise and honor are due to God, Who strengthens me.

ACKNOWLEDGEMENT

An expression of gratitude is due to the chair of my committee, Dr. Shlomo Sawilowsky, and the dissertation committee, Dr. Elizabeth Chapleski, Dr. Alan Hoffman, and Dr. Richard Gallagher, for their assistance and cooperation.

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CHAPTER I

INTRODUCTION

Self-determination, which may be defined as having primary responsibility for planning, choosing, and deciding matters that affect one's own life (Deci, 1989; Ward, 1991; Wehmeyer, 1991), is gaining recognition in education (Deci, Vallerand, Pelletier & Ryan, 1991; St. Peter, Field, Hoffman & Keena, 1992). Research conducted primarily in the field of psychology identified the importance of this construct to an individual's overall sense of well-being (Deci, 1980). Currently, educators in regular and special education are acknowledging that self-determination must be addressed in curriculum design and implementation (Deci et al., 1991; Wehmeyer, 1991), particularly for secondary school students who are rapidly approaching adulthood (Ward, 1988). Thus, there is a need to construct and validate instruments for measuring self-determination. Although there are many instruments to assess factors correlated with self-determination, such as locus of control (Lefcourt, 1966; Omizo & Cubberly, 1983), self-esteem (Omizo & Omizo, 1987), and self-control (Harrison & Heilbrun, 1980), an instrument that has achieved construct validity that specifically measures self-determination does not exist.

Purpose of the Study

The purpose of this study was to assess the construct validity of two new measures of self-determination. The two instruments are: a) Teacher Perception of Student Self-Determination scale (Field, Hoffman, & Sawilowsky, 1993) and b) Self-Determination Knowledge Scale (SDKS) (Field, Hoffman, & Sawilowsky, 1991). Convergent and discriminant validation was evaluated using an adaptation of the multitrait-multimethod procedure suggested by Campbell and Fiske (1959).

Definitions of Self-Determination

Self-determination is a construct that involves the presence of attitudes or skills required for indicating preferences, making responsible decisions, setting goals, and initiating the action required for goal attainment (Deci, 1980; Field, Hoffman, St. Peter, & Sawilowsky, 1992; Ward, 1988). Field, Hoffman, St. Peter & Sawilowsky (1992), defined self-determination as "one's ability to define and achieve goals based on a foundation of knowing and valuing oneself" (p. 931).

Deci, Connell & Ryan (1989), Ward (1988) and Wehmeyer (1991) have used descriptions to define self-determination. According to Deci, Connell, and Ryan (1989), to be self-determining means to experience a sense of choice in initiating and regulating one's own actions. Wehmeyer (1991) described a person who is self-determined as the

primary causal agent in his/her own life. Ward (1988) described self-determination as involving self-actualization, assertiveness, creativity, pride and self-advocacy. In a current review of the literature, St. Peter, Field, Hoffman, and Keena (1992) present studies and discussions of self-determination in relationship to such concepts as self-esteem, self-control, self-concept, self-efficacy, assertiveness, control, competence, creativity, pride, and interdependence/independence. All of these definitions and descriptions of self-determination indicate the multi-faceted character of this construct.

Research Question

This study addressed the following research question regarding the construct validity of the Teacher Perception of Student Self-Determination scale (TPSD) (Field, Hoffman, & Sawilowsky, 1993) and the Self-Determination Knowledge Scale (SDKS) (Field, Hoffman, & Sawilowsky, 1991):

> Do the TPSD and the SDKS provide construct valid measurement of self-determination as evidenced by the multitrait-multimethod approach to construct validity?

Significance of the Study

The significance of this study is threefold. First, it is significant because it involves an examination of instrument validity that is essential to instrument development (Kline, 1979; Nunnally, 1978). Instrument

validation is important because it involves an examination of the "soundness of all the interpretations of a test" (Cronbach, 1971, p. 443). Furthermore, Cronbach and Meehl (1967) advised that new unpublished tests lacking established validity should be limited to research. Results from this study will provide additional validity information to the authors of the instruments that will be valuable to their development, publication, and distribution process.

Second, this study is important because it will involve validation of instruments designed to measure a psychological construct. According to Cronbach and Meehl (1967), construct validation is essential for all types of psychological tests, including aptitude, achievement, interests, etc. Barnett & Zucker (1990) describe construct validity as the central task for test developers. Construct validity is necessary because it provides information that will contribute to psychological theory, while ensuring that an instrument is really suited for the proposed purpose. Results from this validity investigation will provide information regarding the usefulness or capability of the Teacher Perception of Student Self-Determination scale (Field, Hoffman & Sawilowsky, 1993) and the Self-Determination Knowledge Scale (SDKS) (Field, Hoffman, & Sawilowsky, 1991). Professionals who are reviewing existing theories and conducting research regarding self-determination may find relevant information from the results of this study.

Third, this study is significant because of the practical information it may provide to professionals interested in teaching self-determination. Instruments tested for validity will be useful to teachers measuring the presence or absence of self-determination.

Limitations

Limitations of a study are often not evident until the study is completed. One limitation of the study involves the use of convenience sampling. Generalizability of the findings may be affected by using volunteer participants if the respondents and nonrespondents differ with respect to the variables in the study.

Because the study was conducted in one school with a sample composed primarily of African American students who are suburban residents, generalizability may be limited to other students with similar characteristics.

CHAPTER II

REVIEW OF THE LITERATURE

Overview of Self-Determination and Related Theories

Various empirical and nonempirical psychological writings pertain to concepts related to self-determination (Deci & Ryan, 1985). Many scholars examined self-determination concepts relative to making choices, such as volition, intentionality, or will. Additionally, some theorized self-determination in relation to motivation, while others related this concept to freedom (i.e., free will, free choice or freedom from control). According to Deci (1980), William James (1890), one of the forerunners of empirical psychology, was the first to present the significance of volition, and thus, a theory of will. Deci reported that James defined will as a state of mind or an image that precedes voluntary behavior. "In willing, an outcome is imagined, and what follows are movements of the organism that bring about (or at least aim to bring about) the outcome" (Deci, 1980, p. 19).

Psychological writings subsequent to James' theory underplayed or ignored the importance of will (Deci & Ryan, 1985). During the first half of the 20th century, psychological theory was dominated by nonvolitional

theories, and the concepts of volition and will were not regarded. Deci & Ryan (1985) noted:

> Instead, the organization or direction of behavior was attributed to associative bonds between stimuli (whether internal or external) and responses . . . In both theoretical domains [psychoanalytic and behavioral] the motivation of behavior tended to be viewed as mechanistic, because choices and intentions were given either a secondary role (psychoanalytic or no role at all (behavioral) in the determination of behavior. (p. 6)

According to Deci & Ryan (1985), two important developments occurred around the middle of the 20th century that served as an impetus for recognition of self-determination. First, theorists considered fundamental tendencies instrumental in the developmental progression of heteronomy toward autonomy. Second, the relationship of cognitive processes to behavior gained recognition in empirical psychology, and prompted a consideration of self-determination. The cognitive movement in psychology emphasized decisions as the central concept in the directionality of behavior, rather than associative bonds. Deci and Ryan stated that the pioneering work of Tolman (1932) and Lewin (1936) were an impetus to choice and decision-making, replacing stimulus response associations regarding the direction of behavior. This led to the development of theories that emphasize concepts related to

self-determination, such as self-actualization and locus of causality (Deci & Ryan, 1985). According to Deci & Ryan, (1985), Maslow's (1943) theory of self-actualization is an example of a theory that emphasized concepts related to self-determination. "All individuals," Maslow said, "seek to actualize their unique potentials, to become all that they are capable of and to be autonomous in their functioning" (p. 36). Deci & Ryan reported that Heider (1958) introduced the construct of "perceived locus of causality" (p. 7) after being strongly influenced by early cognitive theorists. In this construct, Heider distinguishes between personal causality, where intentionality mediates one's outcome, and impersonal causality, where the outcomes are not intentional. Subsequently, deCharms (1968) suggested that people have a basic motivation for experiencing themselves as causal agents in their interactions. Deci & Ryan (1985) reported that their theory on self-determination, which explores the interplay between self-determined and non-self-determined behavior and processes, has been heavily influenced by these prior developments.

Deci's Theory of Self-Determination

Deci (1980) proposed a metatheory of self-determination focusing on an information-processing framework encompassing an organismic approach. With this theory, Deci characterized the human organism as an active entity that

utilizes cognitive, affective, and motivational processes as mediators of behavior to seek relevant information, block out unwanted information, and organize and interpret information. The information-processing model leads toward the completion of the chosen behaviors and the satisfaction of salient needs. Self-determined behavior is characterized by an entire sequence that initiates with information input and concludes when its purpose has been achieved. Deci reported that in actuality, behavior is ongoing; however, by dividing the continuing flow of behavior into sequences it is possible to analyze behavior regarding causality. Behaviors that are self-determined are not dependent on external input to begin a sequence, according to Deci's theory. Instead, information from internal sources (the needs of the organism as they exist in the physiology and memory of the organism) may initiate a sequence. This internal information is intrinsic motivation and involves the ongoing need of the organism to feel competent and self-determining. Intrinsic motivation energizes one's will while providing the impetus for a variety of activities and processes of the organism, including decision-making. This motivation represents the prototype of self-determination because it emanates from self and is free from external influence.

Self-Determination and the Study of Control

Lewin (1951) and Tolman (1932), pioneers of the

cognitive movement of psychology, proposed intentionality and will as important motivational constructs. According to Deci and Ryan (1985), this led to the empirical study of control. Control as it relates to determinism involves the freedom concept of free choice or free will.

Although there is considerable research that suggests that greater perceived control over one's outcomes has positive effects on many variables including self-determination, Deci and Ryan (1985) advised caution in regarding control and self-determination as the same. According to these authors, having control does not ensure self-determination. When people feel pressure to exercise control or attain certain outcomes, they are not self-determined. Self-determination is an exercise in choice-making, and is evident either when a person chooses to employ control, or give up the control (Deci & Ryan, 1985).

Zavalloni's Theory of Self-Determination

In another theory of self-determination, Zavalloni (1962) examined the relationship of freedom and self-determination. "At the level of free will versus determinism, the freedom question asks whether a person's behavior is fully determined by some set of (perhaps unspecified) forces or can be freely chosen by the person" (Deci, 1989, p. 4). Zavalloni theorized that self-determination involves "a synthesis of rationality and intuitions, as well as a synthesis of the intellective and

volitive functions" (p. 268).

Field and Hoffman's Model of the Self-Determination Process

In their theory of self-determination, Field and Hoffman (1992) developed a model regarding the process of self-determination (see Appendix A). According to the model, self-determination begins with the interaction of one knowing and valuing oneself. This interaction is the foundation for the steps of planning, acting, and experiencing outcomes and learning. In this step, self-esteem and internal locus of control are incorporated. The plan phase involves goal-setting and being creative. Acting in the self-determination process includes initiating action, communicating assertively, and making choices. The experience outcome and learn phase involves evaluating outcomes to expectations and enjoying and realizing one's accomplishments.

Research in Self-Determination

For many years, scholars have examined the construct of self-determination and related concepts. Initial theories to self-determination proposed relationships to such concepts as will, motivation, and freedom (Deci & Ryan, 1985; Zavalloni, 1962). In the 1930s, cognitive theorists introduced the notion of behavioral decision-making and control over outcomes. This "set the stage for the study of self-determination" (Deci et al., 1985, p. 38). Studies

regarding the relationship of self-determination to motivation and well-being are discussed further.

Zuckerman, Porac, Lathin, Smith, & Deci (1978) and Schulz (1976) have conducted studies to examine self-determination, motivation and well-being. Deci (1980) stated: "In recent years there have been numerous studies . . . that have explored some aspect of the relationship among self-determination, motivation, and well-being . . . all lend support to the notion that self-determination is crucial for healthy organismic functioning" (p. 105). Although the studies varied in definitions, theoretical constructs, psychological perspectives, and terminology, they all support the belief that self-determination is crucial for healthy organismic functioning (Deci, 1980). In one study, Zuckerman, Porac, Lathin, Smith, & Deci (1978) investigated the effects of self-determination on the motivation of two groups of college students in choice versus no-choice situations. The results showed that subjects in the choice group were more intrinsically motivated for the activity than those in the no-choice condition. Flink, Boggiano, & Barrett (1990) found intrinsic motivation and performance impairment when 4th grade students received instruction from teachers who used controlling strategies and the absence of choice options.

In an example of a comparison of self-determination and well-being, Schulz (1976) reported that elderly individuals living in an institution who could predict and/or control

the schedule of visits were better off physically, psychologically, and behaviorally than other residents who were visited with equal frequency but without predictability or control. In a subsequent study, Vallerand, O'Connor, and Blais (1989) found that elderly persons who reside in nursing homes that support and provide opportunities for self-determination are equally as satisfied with life as those living elsewhere in the community. With an investigation of the relationship between perceived control and adjustment to chronic illness, Helgeson (1992) found that perceived control has greater implications for patients with severe conditions. Thompson, Sobolew-Shubin, Galbraith, Schwankovsky, and Cruzen (1993) reported that, in a study involving persons with cancer, those patients with greater perceptions of control were less depressed.

The studies described above provide empirical evidence that self-determination has many important motivating properties and denial of the opportunity for self-determination affects one's sense of wellness (Deci, 1980).

This section of the literature review provided information relevant to self-determination. The following review of the literature involves a discussion of psychometric processes pertinent to the study.

Psychometric Processes: Test Validation

In the 1950s the American Psychological Association endeavored to specify psychometric qualities that should be

investigated before a test is published. It discovered that up until that time, "validation of psychological tests had not been adequately conceptualized" (Cronbach & Meehl, 1971, p. 57). Prior to the 1950s, predictive validity was the primary focus of validity theory (Cronbach, 1971). A joint committee of the American Psychological Association (165) and the Educational Research Association (1955) was charged with the task of describing "quality standards" for commercially published tests (Cronbach, 1971). Additionally, within that charge the committee recommended procedures pertinent to various types and applications of tests. According to Cronbach, the committee distinguished three types of validity: criterion-related, content, and construct validity. This paper is limited to a discussion of construct validity.

Construct Validity

The rationale for construct validation (Cronbach & Meehl, 1955) was developed out of personality testing (Cronbach, 1971). Cronbach (1971) reported that construct validity involves an investigation of what psychological qualities a test measures. The following questions were listed by Cronbach as elements of an investigation pertaining to construct validity: "Does the test measure the attribute it is said to measure. More specifically, the description of the person in terms of the construct, together with other information about him and in various

situations; are these implications true?" (p. 446).

In construct validity, the elements of a test score are linked to some underlying theory or model of behavior. Cronbach (1971) stated that "in principle there is a complete theory surrounding the construct, every link of which is systematically tested in construct validation" (Cronbach, 1971, p. 465). According to Cronbach (1971), the theory illustrates the presumed nature of the trait. Therefore, if the test score is a valid manifestation of the construct, its relations to other variables conform to the theory.

Construct validity is an ongoing process requiring the integration of many studies (Cronbach, 1971). Cronbach explained that "construct validation is difficult to explain because so many diverse techniques are required to examine diverse hypotheses and counterhypotheses. With counterhypotheses, other reasons beside the construct are reviewed to determine their effect on the test score. In the process of challenging counterhypothesis, all data related to the theory, such as predictive and concurrent data, as well a demographic information, are useful. The emphasis in this process should be on examining the strength of each relationship rather than reviewing statistical significance. According to Cronbach (1971), "Construct validity aims more at comprehension than at a numerical result" (p. 465).

Numerical Representation of Construct Validity

According to Anghoff (1988), "Construct validity as conceived by Cronbach and Meehl (1955) cannot be expressed in a single coefficient" (p. 26). A construct validity coefficient as described by Cronbach and Meehl (1967) would be a "numerical statement of the proportion of the test score variance that is attributable to the construct" (p. 65). Factor analysis is a common method of data analysis used in construct validity to provide a numerical estimate of the variance. However, Cronbach and Meehl (1955) advised the use of more general methods for the quantitative problems of construct validation since factor analysis is based on linear relations.

Investigative Methods for Construct Validity

Three categories of procedures may be used to examine construct validity: experimental, logical, and correlational (Cronbach, 1971). The experimental study involves retesting individuals to review results after experimental intervention. According to Cronbach (1971), the experimental method involves an attempt to alter the person's test performance using a controlled procedure. In a logical investigation, elements such as the test content or scoring rules are examined to determine their influence on the score. Correlational analysis involves a comparison of high and low scores on 2 or more tests to examine relationships. The multitrait—multimethod approach

suggested by Campbell & Fiske (1959) is a common method of correlational analysis. The following section is a discussion of the multitrait-multimethod approach.

Multitrait-Multimethod Validity

The multitrait-multimethod (MTMM) procedure suggested by Campbell and Fiske (1959) considers traits in terms of how they are measured and how they relate to other traits in the study. MTMM also provides a means for examining the relationships of similar and dissimilar traits that are not elements of the investigation. The multitrait-multimethod approach involves a computation of intercorrelations of the scores on two or more different methods for measuring two or more different constructs and results in data, which is used to develop a correlation matrix. This procedure is based on the idea that different methods of measuring the same trait should yield similar results (convergent validity) and measurement of different traits should yield dissimilar results (discriminant validity).

Convergent Validity

According to Allen and Yen (1979), convergent validity is represented by high correlations between measures of the same trait. "Persons who score high on the test ought to score high on other indicators of the same construct" (Cronbach, 1971, p. 466). The indicator or method may be other kinds of tests, i.e., multiple-choice tests, essay

tests, or questionnaires or ratings (Cronbach, 1971). According to Anghoff (1988),

> Different item types of a multiple-choice sort (synonyms items, reading comprehension items, sentence completion items, etc.) might also be considered examples of different methods . . . 'Method' can be defined in any convenient, but reasonable way" (p. 27).

Evidence of construct validity is not complete with presentation of the convergence principle alone. Campbell and Fiske (1959) noted that "for the establishment of construct validity, discriminant validation as well as convergent validation is required" (p. 124).

Discriminant Validity

Discriminant validity, or divergence, is evidenced when dissimilar traits have lower intercorrelations than those expected for similar traits. The discriminant principle "implies that two measures should not correlate highly with each other if they measure different properties" (Frankfort-Nachmais & Nachmais, 1992). This principle is important to the MTMM approach because tests can be invalidated by high correlations with other tests from which they are expected to differ (Campbell & Fiske, 1959).

Another reason the discriminant requirement is a significant validation procedure involves the general methodological principle of parsimony. Cronbach (1971) noted that with this principle "different scientific names

should not be applied to the same thing or the same construct. If two tests are very similar in what they measure, it complicates theory to retain two trait names for them" (p. 467). Furthermore, Anghoff (1988) stated, "In effect, discriminant validity is a necessary test of construct validity, perhaps even a stronger test in this sense than is convergent validity, because it implies a challenge from a plausible rival hypothesis" (p. 27).

The convergent and discriminant data results are used in the presentation of a correlation matrix. In the following section the components of a multitrait-multimethod correlation matrix, procedures for designing the matrix, and interpretation factors are described.

Multitrait-Multimethod Correlation Matrix

The multitrait-multimethod validity matrix is a correlation matrix with 1's replaced by estimated reliabilities (Allen & Yen, 1979). Table 1 on the following page presents an example of a multitrait-multimethod matrix. The "a" values are the reliability diagonals, with one presented for each method. Therefore, they are monotrait-monomethod values. The heterotrait-monomethod triangles are adjacent to the reliability diagonals. The heterotrait-monomethod triangles are distinguished by solid lines.

Campbell and Fiske (1959) described the monomethod block as consisting of the reliability diagonal and the

Table 1

Multitrait-Multimethod Matrix with Synthetic Data for Fictitious Tests

	Teacher			Student			Parent		
Traits	1	2	3	1	2	3	1	2	3
Teacher									
1 - Participation	.90[a]								
2 - Assertion	.52	.90[a]							
3 - Cooperation	.39	.38	.77[a]						
Student									
1 - Participation	*.58*	.23	.08	.94[a]					
2 - Assertion	.23	*.58*	.11	.69	.95[a]				
3 - Cooperation	.12	.12	*.57*	.60	.59	.84[a]			
Parent									
1 - Participation	*.57*	.23	.12	*.68*	.43	.34	.95[a]		
2 - Assertion	.24	*.59*	.13	.44	*.77*	.35	.67	.92[a]	
3 - Cooperation	.12	.12	*.46*	.35	.33	*.59*	.59	.61	.86[a]

Note: [a] = Reliability diagonals
Italicized numbers = validity diagonals
Solid triangles = heterotrait-monomethod
Dotted triangles = heterotrait-heteromethod

adjacent heterotrait-monomethod triangle. According to Allen and Yen (1979), validity coefficients are illustrated by the correlations between various methods for the same trait. Campbell and Fiske (1959) described a validity coefficient as a monotrait-heteromethod value. In the example, the validity diagonals are the italicized values. Furthermore, Campbell and Fiske (1959) described a heteromethod block as consisting of the validity diagonals and the two heterotrait-heteromethod triangles on each side. The heterotrait-heteromethod triangles are illustrated by a broken line in Table 1.

Campbell and Fiske (1959) described the following properties that are desired in a multitrait-multimethod matrix:

1) The validity coefficients (monotrait-heteromethod values) should be significantly greater than zero, and greater than any coefficients in the columns and rows in the heterotrait-heteromethod triangles.
2) The validity coefficients (monotrait-heteromethod values) should be larger than any coefficient in the heterotrait-monomethod area.
3) The pattern of correlations should be the same for the traits in both the heteromethod and monomethod areas.
4) Allen and Yen (1979) have added a fourth property for the multitrait-multimethod matrix. According

to Allen & Yen (1979), the reliabilities should be large.

In designing a multitrait-multimethod matrix, Campbell and Fiske (1959) advised selecting methods that are conceptually appropriate to that trait. They emphasized that the methods in one matrix should be completely independent of each other, whenever possible. If independence of methods is not feasible, Campbell and Fiske advised employing various procedures (e.g., different background situations, different roles for observers, etc.) to obtain as much diversity as possible regarding data sources and procedures for classification.

When reviewing a multitrait-multimethod matrix, Campbell and Fiske (1959) suggested considering the difference between the interpretations for convergent and discriminant validation. According to the authors, demonstrating convergence between two methods is not difficult, yet it is sufficient as a minimal requirement. However, they cautioned that the discriminative validation is more difficult: "One can never establish that a trait as measured is differentiated from other traits. One can only show that this measure of Trait A has little overlap with those measures of B and C, and no dependable generalization between B and C can be made" (p. 130).

According to Campbell and Fiske (1959), it is not uncommon for a multitrait-multimethod matrix to lack convergent validation. If this occurs, they advised the

consideration of the following possibilities: "(a) Neither method is adequate for measuring the trait; (b) One of the two methods does not really measure the trait; and, (c) The trait is not a functional unity, the response tendencies involved being specific to the nontrait attributes of each test" (p. 131).

The discussion of psychometric processes is expanded to include an overview of the history and development of the Self-Determination Knowledge Scale (SDKS) (Field, Hoffman, & Sawilowsky, 1991), the Teacher Perception of Student Self-Determination scale (TPSD) (Field, Hoffman, & Sawilowsky, 1993), and the Autonomous Functioning Checklist (AFC) (Sigafoos, Feinstein, Damand, & Reiss, 1987). This information is included to describe instrument development and psychometric properties prior to revision.

Instrument History and Development

Self-Determination Knowledge Scale (SDKS)

The Self-Determination Knowledge Scale (SDKS) (Field, Hoffman, & Sawilowsky, 1991) is a 34-item scale based on the Self-Determination Scale (Field, Hoffman, & Sawilowsky, 1991). The Self-Determination Scale was developed to measure the effects of the self-determination curriculum designed by Field and Hoffman (1992), whereas the Self-Determination Knowledge Scale (SDKS) was designed to measure self-determination knowledge as it is demonstrated in school, work, home, and the community. It is appropriate

for students with and without disabilities.

A field test conducted by Field, Hoffman, and Sawilowsky (1991) yielded the following results for the pre-test:

Cronbach's Alpha	.69
Spearman-Brown Coefficient	.87
Standard Error of Measurement	2.31
Reading grade level	6.02

Teacher Perception of Student Self-Determination Scale (TPSD)

The Teacher Perception of Student Self-Determination scale (TPSD) (Field, Hoffman, & Sawilowsky, 1993) was developed as part of the Self-Determination Observation Checklist (SDOC) (Field, Hoffman, Sawilowsky, & St. Peter, 1991). The objective of the SDOC is to assess the extent to which a student exhibits behaviors associated with self-determination in the school environment. This instrument was developed according to the "Test-Blueprint" process as suggested by Nunnally (1978). This process resulted in a "blueprint" of nine categories of observable behaviors considered to be essential to self-determination. The SDOC blueprint (Field, Hoffman, & Sawilowsky, 1991) consists of:

I. Planning
   A. Exploring Options
   B. Setting Goals
   C. Making Decisions

II. Taking Risks

III. Initiating Actions

IV. Demonstrating Appropriate Communication Skills

V. Communicating for Self

VI. Using Humor

The second part of the Self-Determination Observation Checklist (SDOC) (Field, Hoffman, Sawilowsky, & St. Peter, 1991) was designed to enable teachers to record their perceptions of each student's self-determination. The original teacher perception section of the SDOC included a rating scale with a range of 0 to 3 (with 0 = does not demonstrate this skill or trait, and 3 = demonstrates a high level of this skill or trait). The blueprint categories are the basis of the ratings. Teacher perceptions were included in the SDOC development process because it afforded an opportunity to gain additional information. It can be used for students with and without disabilities.

Self-Determination Observation Checklist

Reliability procedures yielded a Cronbach's Alpha of .898 for the SDOC's nine perceptions items. A split-halves model of reliability yielded a correlation between forms of .64; equal length Spearman-Brown = .78; and Guttman Split-Half = .78. A strictly parallel model of reliability yielded a reliability estimate of .90, and an unbiased estimate of .90.

The mean score for the nine perception items was 26.23. Other descriptive statistics include: variance = 49.99,

standard deviation = 7.07, item mean = 2.63, item mean variance = .04, item variance mean = .96, variance of item variances = .02, inter-item correlation mean = .48, variance of inter-item correlation mean = .034.

A series of t-tests (alpha = .05) indicated a significant difference for items 1, 2, 4, 5, 6, and 9 between students with and without disabilities. Group means for students with disabilities were significantly lower for each of the significant t-tests for those items.

A discriminant analysis based on the nine perception items—as rated by teachers—indicated the ability to discriminate students with disabilities 33 out of 47 (70.2%) from students without disability labels 33 of 45 (68.8%). A 2x2 factorial analysis applied to the nine perception items indicated a significant interaction for items 1, 3, 4, and 5 for type of student (disability/non-disability) and time of day (before lunch/after lunch).

Autonomous Functioning Checklist

The Autonomous Functioning Checklist (AFC) (Sigafoos, Feinstein, Damond, & Reiss, 1987) is a behavioral checklist that was designed to be completed by parents for adolescents between the ages of 12 and 18. The checklist consists of 78 items and is designed to measure living skills relevant to the development of adult independent functioning.

The checklist is divided into four subscales:

(a) Self and Family Care - which is designed to

measure the extent to which the adolescent implements daily maintenance activities (i.e., meal preparation, household chores) for himself or his family;

(b) Management - which measures the degree of independence the adolescent utilizes in interactions with the environment. This subscale is divided into two sections: "Management Activity Resources" and "Management Activity Self." The resources section examines the adolescent's use of social/organizational resources. The Self section measures the adolescent's ability to plan ahead.

(c) Recreation - which is designed to determine the adolescent's activity choices for free times; and

(d) Social and Vocational - which measures socialization and career exploration activities.

Psychometric Analysis of the Autonomous Functioning Checklist

The authors of the Autonomous Functioning Checklist (AFC) (Sigafoos, Feinstein, Damond, & Reiss, 1987) examined validity by reviewing the relations between the checklist scores and the adolescent characteristics of age, leadership experience, grade point average, honors awarded, and extracurricular activities. Additionally, the study examined the correlation for the subscales and parent education, household income, number of children, and

parental marital status. Results of the analyses presented by Sigafoos, Feinstein, Damand, and Reiss (1977) indicated the following range of correlations (see Table 2).

Table 2

Range of Pearson Correlations for the Autonomous Functioning Checklist and Demographic Variables

Variable	Range of Correlations for the Autonomous Functioning Checklist Subscales
Age	.11 - .44
Gender	.10 - .17
GPA	-.05 - .28
Leadership	.21 - .36
Honors	-.04 - .22
Extracurricular	.11 - .45
Parent Education	-.18 - .07
Household Income	-.11 - .15
Number of Children	.03 - .17
Parent Marital Status	-.08 - .12

Instrument reliability involved an examination of item distributions within subscales and interrater reliability. Originally, the AFC contained 95 items, 17 of which were discarded because the distributions were highly skewed and/or the correlation with the subscale scores was low (Sigafoos, Feinstein, Damond, & Reiss, 1988).

Interrater reliability of the Autonomous Functioning Scale was examined by having both parents complete a checklist for their child. The study involved 52 pairs of parents, and Pearson correlation coefficients were as follows: Self and Family Care interrater coefficient = 0.46; Management = 0.57; Recreation = 0.62; and Social and Vocational Activity = 0.53. For additional psychometric information of the Autonomous Functioning Checklist, see "The Measurements of Behavioral Autonomy in Adolescence: The Autonomous Functioning Checklist" (Sigafoos, Feinstein, Damand, & Reiss, 1988).

These descriptions of the Self-determination Knowledge Scale (SDKS) (Field, Hoffman, & Sawilowsky, 1991), the Teacher Perception of Student Self-Determination scale (TPSD) (Field, Hoffman, & Sawilowsky, 1993), and the Autonomous Functioning Checklist (AFC) (Sigafoos, Feinstein, Damond, & Reiss, 1987) pertain to these instruments as originally designed. The methodology section will provide psychometric information as it pertains to the revised instruments.

CHAPTER III

METHODOLOGY

Sample

The sample was selected from 11th and 12th grade students enrolled in required U.S. History and Government classes attending a large metropolitan Midwestern high school. Ten U.S. History and Government teachers were asked to participate in the study and eight volunteered. Recruitment of student participation was implemented in the eight classes. Of the 219 students asked to participate, 197 volunteered. Parent consent was not granted for five students. Seventeen students refused to participate.

The completion of the three scales, Self-Determination Knowledge Scale (SDKS) (Field, Hoffman, & Sawilowsky, 1991), Autonomous Functioning Checklist (Sigafoos, Feinstein, Damond, & Reiss, 1987), and the Interpersonal Dependency Inventory (Hirschfeld, Klerman, Gough, Barrett, Korchin, & Chodoff, 1977) occurred in the classrooms of the eight volunteer teachers. However, 33 additional teachers who taught 11th and 12th graders using a lecture-discussion format were asked to complete the Teacher Perception of Self-Determination (TPSD) (Field, Hoffman, & Sawilowsky, 1993). These additional teachers were asked to complete the

TPSD in an attempt to address the administrator's concern regarding appropriate and feasible time allotment of teacher participants. In each stage of the sampling process, convenience sampling was used because it was the most practical technique for this study.

The study was conducted in accordance with the rules of the Human and Animal Investigation Committee of Wayne State University, and the APA/AERA/NCME standards for ethical conduct of research. Informed notification to parents or guardians was used. The notification (see Appendix B) advised participants that:

1. participation was voluntary,
2. individual information would be confidential and only group results would be used, and
3. individual and group results would be available upon the request of the parent or student participant.

Instruments

The following instruments were used in the study:

1. Teacher Perception of Student Self-Determination Scale (TPSD) (Field, Hoffman, & Sawilowsky, 1993).
2. Self-Determination Knowledge Scale (SDKS) (Field, Hoffman, & Sawilowsky, 1991).
3. The Autonomous Functioning Checklist (AFC) (Sigafoos, Feinstein, Damond, & Reiss, 1987).
4. The Interpersonal Dependency Inventory

(Hirschfeld, Klerman, Gough, Barrett, Korchin, & Chodoff, 1977).

According to Campbell & Fiske (1959), the multitrait-multimethod procedure involves the use of at least two traits and methods. The SDKS and TPSD purport to measure five traits related to self-determination (Field, Hoffman, & Sawilowsky, 1991, 1993). These traits are:

1. Planning
    a. exploring
    b. setting goals
    c. making decisions
2. Taking risks
3. Initiating Actions
4. Demonstrating Appropriate Communication Skills
5. Communicating for Self

The Teacher Perception of Student Self-Determination Scale (TPSD) (Field, Hoffman, Sawilowsky, 1993) is intended to measure teachers' perceptions of behaviors that are correlated with self-determination. The Self-Determination Knowledge Scale (SDKS) (Field, Hoffman, & Sawilowsky, 1991) is designed to assess cognitive components of self-determination, based on a curriculum designed by Field & Hoffman (1992).

The convergent aspect of the study involved the Autonomous Functioning Checklist (Sigafoos, Feinstein, Damond, & Reiss, 1987). This instrument was selected

because it measures a construct that is related to self-determination as supported by the literature (i.e., Wehmeyer, 1991).

For the discriminant component of the study, the Interpersonal Dependency Inventory (Hirschfeld, Klerman, Gough, Barrett, Korchin, & Chodoff, 1977) was used. This instrument was selected because it purports to measure interpersonal dependency. According to the literature (Deci, 1980), dependency is an attribute that is opposite to self-determination.

As noted in the Instrument History and Development section of Chapter II, the Self-Determination Knowledge Scale (SDKS) (Field, Hoffman, & Sawilowsky, 1991), the Teacher Perception of Student Self-Determination scale (TPSD) (Field, Hoffman, & Sawilowsky, 1993), and the Autonomous Functioning Checklist (Sigafoos, Feinstein, Damond, Reiss, 1987), are revised instruments. Psychometric information for the instruments as revised is presented below.

Self-Determination Knowledge Scale and Teacher Perception of Self-Determination Scale

A pilot study (n=77) was conducted by Field, Hoffman, and Sawilowsky (1993) to examine reliability of the revised Self-Determination Knowledge Scale (SDKS), and the Teacher Perception of Student Self-Determination scale (TPSD). The results for the SDKS (31 items) include: Cronbach's Alpha =

.80, mean score = 20.0, standard error = 1.2, minimum = 11, and maximum = 30.

The pilot study yielded the following results for the revised Teacher Perception of Student Self-Determination scale (TPSD) (30 items): Cronbach's Alpha = .97, mean score = 55.1, standard error = 2.7, minimum = 13, and maximum = 109.

Autonomous Functioning Scale

The Autonomous Functioning Checklist (Sigafoos, Feinstein, Damond, & Reiss, 1987) was revised by Wehmeyer (1993) from a 78-item parent-completed survey to a 79-item self-report. The additional item was added to the Social and Vocational subscale and was designed to determine whether the respondent had a close friendship with an adult brother or sister.

The content of the instrument did not change, and therefore previous validity information was considered to be accurate (see Instrument History and Development section). Reliability and descriptive statistics for the revised instrument (79-item) as reported by M. Wehmeyer (personal communication, December 28, 1993) include: Cronbach's Alpha = .93, mean score = 127.62, variance = 1814.71, range = 228, minimum = 14, maximum = 242. Preliminary test-retest analysis conducted at a one-month interval (n=18) is presented in Table 3 on the following page.

Table 3

Correlations of Preliminary Test-Retest Analysis of the Autonomous Functioning Checklist (AFC) (N=18)

Retest	Correlation
Self and Family	.84*
Management	.82*
Recreation	.65*
Social/Vocational	.28
AFC Total	.89*

$p<.05$

Interpersonal Dependency Inventory

The Interpersonal Dependency Inventory (Hirschfeld, Klerman, Gough, Barrett, Korchin, & Chodoff, 1977) is a 48-item self-report scale developed to assess interpersonal dependency in adults. It includes three scales: Emotional Reliance on Another Person, Lack of Social Self-Confidence, and Assertion of Autonomy.

The Emotional Reliance on Another Person scale examines attachment and dependency. Items designed to measure attachment review one's desire for contact and emotional support, from specific persons. Dependency-related items examine one's "wish for approval and attention from others" (Hirschfeld, Klerman, Gough, Barrett, Korchin, & Chodoff, 1977, p. 617.

The items in the Lack of Social Self-Confidence scale

examines the respondent's desire for assistance in decision-making and taking initiative.

The Assertion of Autonomy scale addresses the extent to which an individual's self-esteem is dependent on the approval of others.

Correlation analysis was conducted for the three scales of the Interpersonal Dependency Inventory (Emotional Reliance on Another Person, Lack of Social Self-Confidence, and Assertion of Autonomy) with age, education, social desirability, depression, anxiety, and interpersonal sensitivity. The correlations for age and education involved 400 subjects. The remaining correlations are based on 180 psychiatric patients. Results of the analyses presented by Hirschfeld, Klerman, Gough, Barrett, Korchin, and Chodoff (1977) indicated the following range of correlations (see Table 4 on following page).

The reliability analysis for the three subscales, Emotional Reliance on Another Person, Lack of Social Self-Confidence, and Assertion of Autonomy, resulted in corrected split-half reliabilities of .87, .78, and .72, respectively. Intercorrelations among the three scales were: Emotional Reliance on Another Person and Assertion of Autonomy = -.23, and Lack of Social Self-Confidence and Assertion of Autonomy was -.08. For more information on reliability and validity of the Interpersonal Dependency Inventory, see "A Measure of Interpersonal Dependency" (Hirschfeld, Klerman, Gough, Barrett, Korchin, & Chodoff, 1977).

Table 4

Range of Correlations for the Interpersonal Dependency Inventory

Variable	Range of Correlation for Interpersonal Dependency Subscales
Age	.04 - .12
Education	.10 - -.21
General Neuroticism	.01 - .49
Social Desirability	-.56 - -.09
Anxiety	.06 - .34
Depression	.08 - .44
Interpersonal Sensitivity	.17 - .53

Procedures

Teacher and student recruitment occurred in the fall semester of 1993. The teachers were introduced to the topic of the study with a specific focus on the Field & Hoffman (1992) model. Data collection was scheduled and procedures clarified during meetings with individual teachers. After teachers volunteered to participate in the study, recruitment of student participants began. The students were informed that participation was voluntary and that the information would be kept confidential. They also were informed that they and their parents had the right to see individual test results. Notification information was distributed to parents. The staff was encouraged to facilitate the consent return process.

Due to various reasons (i.e., absenteeism, schedule changes and conflicts) 174 or 88% of students completed the Self-Determination Knowledge Scale (SDKS) (Field, Hoffman, & Sawilowsky, 1991), 165 or 83% of the students completed the Autonomous Functioning Checklist (Sigafoos, Feinstein, Damond, & Reiss, 1987), and 163 or 83% of the students completed the Interpersonal Dependency Inventory (Hirschfeld, Klerman, Gough, Barrett, Korchin, & Chodoff, 1977). Each scale was administered on a consistently scheduled basis (e.g., Tuesdays, 9 a.m.) over a two-week time span. Thirty-three teachers who teach 11th and 12th grade lecture and discussion classes completed the Teacher Perception of Student Self-Determination scale (TPSD) (Field, Hoffman, Sawilowsky, 1993) for 189 or 96% of the student participants.

Design and Data Analysis

Correlation matrices consisted of an analysis of the scores obtained from the subscales of the Teacher Perception of Student Self-Determination Scale (TPSD) (Field, Hoffman, & Sawilowsky, 1993), the Self-Determination Knowledge Scale (SDKS) (Field, Hoffman, & Sawilowsky, 1991), the Autonomous Functioning Checklist (sigafoos, Feinstein, Damond, & Reiss, 1987), and the Interpersonal Dependency Inventory (Hirschfeld, Klerman, Gough, Barrett, Korchin, & Chodoff, 1977). The matrices present scores in the following manner:

1. The correlation of TPSD with SDKS subscales to

evaluate convergence of indicators.

2. The correlation of TPSD and SDKS subscales with the subscales of Autonomous Functioning Checklist to evaluate convergence.

3) The correlation of TPSD and SDKS subscales with the Interpersonal Dependency Inventory to evaluate discriminant validity.

The Pearson Product-Moment Correlation Coefficient, r, is the method of statistical analysis. This measure of correlation is considered appropriate for variables measured on interval and ratio levels, such as the SDKS, which is an interval level scale. The use of the Pearson Product Moment correlation for the TPSD, which is an ordinal level scale based on judgment and perception, might be considered inappropriate. The criteria of appropriate measurement level (i.e., interval and ordinal) necessary for valid interpretations of r has been the cause of much debate (Roberts & Kunst, 1990; Bryman & Cramer, 1990). Many authors (e.g., Hildebrand, Laing, & Rosenthal, 1977; Bryman & Cramer, 1990) suggested there are minimal adverse effects when using r on a mixture of interval and ordinal.

The design of a multitrait-multimethod matrix requires reliability information in the validity diagonals; therefore, reliability summaries were included in the data analysis. The Spearman-Brown Prophecy formula was used to predict the reliability of the subscales if lengthened. The formula is: $r'_{xx} = Lr_{xx}/(1 + (L-1)r_{xx}$ where r_{xx} denotes the

reliability coefficient of the original test and r'_{xx} is the reliability of the new test, which is L times as long as the original test (i.e., L is the ratio of the "new" length to the "old" length) (Hopkins & Stanley, 1981).

According to Hopkins and Stanley (1981), by using the Spearman-Brown Prophecy Formula, one can accurately predict the effect that changing the test length will have on a test's reliability. However, they emphasize that this procedure assumes the additional items and the original items are parallel with respect to subject matter, difficulty, etc.

ANOVA was conducted to determine the influence of gender and grade and the interaction of gender and grade on the scores of the Self-Determination Knowledge Scale (SDKS) (Field, Hoffman, & Sawilowsky, 1991) and the Teacher Perception of Student Self-Determination scale (TPSD) (Field, Hoffman, & Sawilowsky, 1993).

All tests were conducted at a nominal alpha of .05. This alpha level was selected because it represents an established ratio of importance of making a Type I versus Type II error, and affords more power to detect a false null hypothesis than the more conservative .01 alpha level.

CHAPTER IV

RESULTS

Sample Description

One hundred and ninety-seven subjects participated in the study. There were 87 males and 110 females, ages 15-18. African-Americans comprised 82% of the sample, and 44% of the sample were twelfth graders. Table 5 presents the sample composition by grade and ethnicity.

Table 5

Sample Composition: Number of Participants in Each Grade by Ethnicity

	Grade			
Ethnicity	10	11	12	Total
African American	1	70	90	161
Native American		1	3	4
Asian		2	1	3
Hispanic		3	2	5
White	1	12	11	24
Total	2	88	107	197

Primary Statistical Analyses

Correlation Matrices

A multitrait-multimethod matrix is presented in Table 6. This matrix represents the correlations between the subscales of the Self-Determination Knowledge Scale (SDKS) (Field, Hoffman, & Sawilowsky, 1991) and the Teacher Perception of Self-Determination (TPSD) (Field, Hoffman, & Sawilowsky, 1993). Results indicate significant intercorrelations for all of the subscales of the SDKS and TPSD. There are significant correlations for most of the matching subscales of the SDKS and TPSD. The correlations of the Plan subscales for both instruments are not significant and range from .04 to .12.

Table 6

Multitrait-Multimethod Matrix

	SDKS				TPSD				
Traits	Know	Value	Plan	Act	Know	Value	Plan	Act	Learn
SDKS									
1. Know	.21[a] .82[b]								
2. Value	.32**	.11[a] .71[b]							
3. Plan	.29**	.32**	.42[a] .88[b]						
4. Act	.47**	.45**	.37**	.58[a] .93[b]					
TPSD									
1. Know	(.21**)	.23**	.12	.20**	.95[a]				
2. Value	.18**	(.23**)	.06	.20**	.88**	.92[a]			
3. Plan	.14**	.23**	(.04)	.20**	.87**	.87**	.93[a]		
4. Act	.17**	.22**	.09	(.18*)	.89**	.87**	.87**	.94[a]	
5. Learn	.21**	.32**	.10	.24**	.87**	.85**	.86**	.89**	.96[a]

[a] Cronbach Alpha reliability coefficients
[b] Spearman-Brown Corrected Internal Consistency coefficients
Solid triangles = heterotrait-monomethod; Dotted trianges = heterotrait-heteromethod
Parentheses = validity diagonal
* p<.05 ** p<.01

Table 7 below presents the correlations of the Self-Determination Knowledge Scale (SDKS) (Field, Hoffman, & Sawilowsky, 1991) and the Teacher Perception of Self-Determination scale (TPSD) (Field, Hoffman, & Sawilowsky, 1993) with the Autonomous Functioning Checklist (AFD) (Sigafoos, Feinstein, Damond, & Reiss, 1987).

Table 7

Correlations of the Self-Determination Knowledge Scale (SDKS) and Teacher Perception of Self-Determination Subscale (TPSD) with the Subscales of the Autonomous Functioning Checklist

Scale		Autonomy			
		Self/ Family	Management	Recreation	Social/ Vocational
SDKS					
1.	Know	.19**	.30**	.10	.17*
2.	Value	.05	.25**	.09	-.13
3.	Plan	-.02	.16**	-.09	-.11
4.	Act	-.07	.19*	.01	-.00
TPSD					
1.	Know	.06	.22**	.18**	-.18*
2.	Value	.04	.24**	.20**	.14*
3.	Plan	.05	.23**	.24**	.14*
4.	Act	.06	.25**	.18*	-.15*
5.	Learn	.08	.26**	.22**	-.17*

* $p<.05$
** $p<.01$

The Management subscale of the AFC correlated

significantly with all of the subscales of the SDKS and the TPSD. Additionally, there is a significant correlation between the subscales in the TPSD and the Recreation subscale of the Autonomous Functioning Checklist.

The Know, Plan, and Act subscales of the Self-Determination Knowledge Scale (SDKS) (Field, Hoffman, & Sawilowsky, 1991) had significant negative correlations with the Lack of Social Self-Confidence subscale of the Interpersonal Dependency Inventory (Hirschfeld, Klerman, Gough, Barrett, Korchin, & Chodoff, 1977) (see Table 8).

Table 8

Correlations of the Self-Determination Knowledge Scale (SDKS) and Teacher Perception of Self-Determination (TPSD) Subscales with the Interpersonal Dependency Inventory

Scale		Dependency		
		Emotional Reliance	Lack of Self-Confidence	Assertion of Autonomy
SDKS				
1.	Know	-.02	-.29**	-.01
2.	Value	-.04	-.12	-.06
3.	Plan	-.12	-.22**	-.08
4.	Act	-.08	-.18*	-.06
TPSD				
1.	Know	.01	-.08	-.02
2.	Value	-.02	-.06	-.08
3.	Plan	-.01	-.06	-.05
4.	Act	-.01	-.04	-.03
5.	Learn	.00	-.07	-.03

* $p<.05$ ** $p<.01$

Correlations for the Teacher Perception of Self-Determination (TPSD) (Field, Hoffman, & Sawilowsky, 1993) and the Interpersonal Dependency Inventory indicate correlations ranging from .00 to -.08.

Correlational analysis of the total scores for all four instruments is presented in Table 9 below. Results indicate a significant negative relationship (-.25) between the Self-Determination Knowledge Scale (SDKS) (Field, Hoffman, & Sawilowsky, 1991) and the Interpersonal Dependency Inventory (Hirschfeld, Klerman, Gough, Barrett, Korchin, & Chodoff, 1977). The analysis of the Teacher Perception of Self-Determination (TPSD) (Field, Hoffman, & Sawilowsky, 1993) and the Autonomous Functioning Checklist (AFC) (Sigafoos, Feinstein, Damond, & Reiss, 1987) resulted in a significant positive correlation (.20).

Table 9

Correlations of the Total Score for All Scales

	SDK[1]	TPSD[2]	IDI[3]
SDKS[1]			
TPSD[2]	.24**		
IDI[3]	-.25**	-.06	
AFC[4]	.12	.21**	.02

[1] Self-Determination Knowledge Scale
[2] Teacher Perception of Self-Determination
[3] Interpersonal Dependency Inventory
[4] Autonomous Functioning Checklist
p<.01

Secondary Analyses

Reliability Summary

Results from a reliability summary for the subscales of the Self-Determination Knowledge Scale (SDKS) (Field, Hoffman, & Sawilowsky, 1991) are presented in Table 10 on the following page. The mean numbers indicate the number of students who obtained a correct score for the item. The minimum was .54 (items #7 and #8) and the maximum was .99 (item #4).

The corrected item-total correlation is the correlation between that item's score and the scale scores from the other items in that subscale. The SDKS consists of 31 questions, and four of the items had negative corrected item-total correlations. Overall, the corrected item-total correlations that were positive ranged from .00 to .45.

Standard Error of Measurement

The standard error of measurement, also called the standard deviation of error, or the standard error of the obtained score, provides an estimate of the extent to which obtained scores are likely to deviate from hypothetical true scores. According to Stanley and Hopkins (1972), "True scores represent the average score a person would obtain on an infinite number of parallel forms of the test assuming that the person is unchanged by taking the test" (p. 120). Since it is not possible to repeatedly test persons without changing them, the true score is never known. Fortunately,

Table 10

Psychometric Information for the Self-Determination Knowledge Scale (SDKS) by Subscale and Item Number (N=174)

Subscale	Item	Mean	S.D.	Corrected Item Total Correlation
Know	2	.71	.45	-.04
	6	.92	.27	.12
	10	.92	.27	.19
	11	.95	.22	.36
	12	.79	.40	.20
	23	.58	.49	-.06
Value	4	.99	.10	.07
	5	.90	.30	-.07
	13	.97	.17	.22
	14	.70	.46	.02
	17	.87	.33	.12
Plan	1	.98	.13	-.07
	7	.54	.50	.14
	8	.54	.50	.02
	9	.96	.20	.34
	15	.79	.41	.22
	16	.56	.50	.26
	24	.88	.33	.24
	25	.92	.26	.07
	27	.73	.44	.33
	28	.58	.49	.14
Act	3	.92	.27	.11
	18	.56	.50	.17
	19	.77	.42	.29
	20	.69	.46	.00
	21	.56	.50	.28
	22	.79	.40	.30
	26	.86	.35	.34
	29	.56	.50	.44
	30	.56	.50	.45
	31	.86	.34	.29

the standard error of measurement provides an index for estimating the range between obtained and true scores, without repeated testings. However, it is based on the assumption that the standard error of measurement would be the same for all subjects.

The standard error of measurement may be used to determine the amount of measurement error due to unreliability. When the reliability is +1, then the standard error of measurement would be 0. According to Hopkins and Stanley (1981), this indicates that all differences in true and obtained scores are due to the differences in true scores. When the reliability is 0, the standard error of measurement is equal to the standard deviation, indicating that the test differences are the result of errors of measurement, and a chance relationship exists between obtained and true scores. The formula for the standard error of measurement is $SE_{meas} = SD\sqrt{1-R}$, where SD = standard deviation of obtained scores, and R = reliability of the test. It is expressed in the same unit as the standard deviation. The standard deviation and the standard error measurement for the subscales of the SDKS are presented in Table 11 on the following page.

Analysis of Demographic Variables

An analysis of variance was computed to examine the grade and gender differences for the Self-Determination Knowledge Scale (SDKS) (Field, Hoffman, & Sawilowsky, 1991)

Table 11

Standard Deviation and Standard Error of Measurement Results for SDKS Subscales

Subscale	S.D.	Standard Error of Measurement
Know	.99	.88
Value	.70	.66
Plan	1.60	1.21
Act	1.99	1.29

and the Teacher Perception of Self-Determination scale. The results are presented in Tables 12-15 (SDKS) and Tables 16-20 (TPSD) on the following pages.

There were no significant interactions for grade and gender for the SDKS and the TPSD. There were no significant differences for the subjects regarding grade and gender for the Self-Determination Knowledge Scale (SDKS) (Field, Hoffman, & Sawilowsky, 1991). However, girls received statistically significant higher ratings than did boys on all the subscales of the Teacher Perception of Self-Determination. Additionally, twelfth graders received statistically higher ratings than the eleventh graders on all the subscales.

Table 12

Summary Table of ANOVA Results for the SDKS Know Subscale

Source of Variation	df	F	Sig. of F (p)
	Know		
Grade	1	2.04	.155
Gender	1	.74	.390
Gender by Grade	1	2.64	.106
Within (error)	169		
Total	172		

	Gender	
Grade	M	F
11	4.6	5.0
12	5.0	4.9

Table 13

Summary Table of ANOVA Results for the SDKS Value Subscale

Source of Variation	df	F	Sig. of F (p)
	Value		
Grade	1	.12	.725
Gender	1	2.34	.128
Gender by Grade	1	.21	.644
Within (error)	169		
Total	172		

	Gender	
Grade	M	F
11	4.3	4.5
12	4.4	4.5

Table 14

Summary Table of ANOVA Results for the SDKS Plan Subscale

Source of Variation	df	F	p
	Plan		
Grade	1	.94	.334
Gender	1	2.88	.091
Gender by Grade	1	.02	.898
Within (error)	169		
Total	172		

	Gender	
Grade	M	F
11	7.4	7.8
12	7.1	7.6

Table 15

Summary Table of ANOVA Results for the SDKS Act Subscale

Source of Variation	df	F	Sig. of F (p)
	Act		
Grade	1	.19	.662
Gender	1	3.48	.064
Gender by Grade	1	2.23	.137
Within (error)	169		
Total	172		

	Gender	
Grade	M	F
11	6.7	7.7
12	7.0	7.1

Table 16

Summary Table of ANOVA Results for the TPSD Know Subscale

Source of Variation	df	F	Sig. of F (p)
	Know		
Grade	1	4.95	.027*
Gender	1	13.34	.000*
Gender by Grade	1	1.19	.276
Within (error)	183		
Total	186		

* p<.05

	Gender	
Grade	M	F
11	14.3	19.0
12	17.6	20.1

Table 17

Summary Table of ANOVA Results for the TPSD Value Subscale

Source of Variation	df	F	Sig. of F (p)
	Value		
Grade	1	8.34	.004*
Gender	1	12.74	.000*
Gender by Grade	1	.88	.349
Within (error)	183		
Total	186		

* p<.05

	Gender	
Grade	M	F
11	10.8	13.9
12	13.5	15.3

Table 18

Summary Table of ANOVA Results for the TPSD Plan Subscale

Source of Variation	df	F	Sig. of F (p)
	Plan		
Grade	1	6.78	.010*
Gender	1	16.74	.000*
Gender by Grade	1	.09	.763
Within (error)	186		
Total	162		

* p<.05

	Gender	
Grade	M	F
11	7.1	9.8
12	8.9	11.2

Table 19

Summary Table of ANOVA Results for the TPSD Act Subscale

Source of Variation	df	F	Sig. of F (p)
	Act		
Grade	1	5.58	.019*
Gender	1	7.49	.007*
Gender by Grade	1	.16	.689
Within (error)	183		
Total	186		

* $p<.05$

	Gender	
Grade	M	F
11	18.5	22.4
12	21.9	24.8

Table 20

Summary Table of ANOVA Results for the TPSD Learn Subscale

Source of Variation	df	F	p
	Learn		
Grade	1	5.65	.019*
Gender	1	14.8	.000*
Gender by Grade	1	.24	.626
Within (error)	183		
Total	186		

* $p<.05$

	Gender	
Grade	M	F
11	9.8	13.1
12	12.0	14.5

Additional Correlation Analysis

Table 21 presents the correlations between the subscales of the Autonomous Functioning Checklist (AFC) (Sigafoos, Feinstein, Damond, & Reiss, 1987) and the Interpersonal Dependency Inventory (Hirschfeld, Klerman, Gough, Barrett, Korchin, & Chodoff, 1977). There is a significant correlation ($r=.21$, $p<.01$) between the Self and Family subscale of the AFC, and the Emotional Reliance scale of the Interpersonal Dependency Inventory. The analysis of the Management subscale from the autonomy instrument and Lack of Self-Confidence scale of the dependency measure resulted in a significant correlation of $r=-.19$, $p<.05$.

Table 21

Correlations of the Autonomous Functioning Checklist and the Interpersonal Dependency Inventory

	Autonomy			
Subscales Dependency	Self and Family	Management	Recreation	Social/Vocational
Emotional Reliance	.21**	.00	.15	.01
Lack of Self-Confidence	.00	-.19*	.04	.12
Assertion of Autonomy	-.01	-.08	.03	.12

* $p<.05$ ** $p<.01$

CHAPTER V

CONCLUSION AND RECOMMENDATIONS

Summary of the Study

This study investigated the construct validity of the Self-Determination Knowledge Scale (SDKS) (Field, Hoffman, & Sawilowsky, 1991), and the Teacher Perception of Self-Determination (TPSD) scale (Field, Hoffman, & Sawilowsky, 1993). An adaptation of the Multitrait-Multimethod matrix (MTMM) developed by Campbell and Fiske (1959) was used to determine the convergent and discriminant relationships between the subscales of the SDKS and the TPSD. Additional correlational analyses examined the convergent relationships between the subscales of the Autonomous Functioning Checklist (AFC) and the Self-Determination Knowledge Scale (SDKS) and the Teacher Perception of Self-Determination (TPSD) scale. Correlations of the Interpersonal Dependency Inventory subscales with the SDKS and TPSD subscales were reviewed to determine discriminant aspects.

The Multitrait-Multimethod (MTMM) matrix is a table that presents the correlations between traits. The development of this matrix requires more than one trait and method. Correlations in the matrix are evaluated based on the theory that there should be higher correlations when the

same trait is measured even though different methods are used. Campbell and Fiske (1959) specified the necessary matrix characteristics that will provide support for convergent and discriminant validity:

1. Convergent validity is evidenced by validity diagonals (monotrait-heteromethod values) significantly different from zero.
2. Discriminant validity is evidenced by a) greater values in the validity diagonals (monotrait-heteromethod) than the different traits-same methods values (heterotrait-monomethod); b) greater values in the validity diagonals than the different traits-different methods values (heterotrait-heteromethod; and c) similar patterns in the correlations.

Allen and Yen (1979) included high reliabilities as a requirement in the Multitrait-Multimethod matrix. This seems reasonable, since the reliabilities are the values representative of the same method-same trait correlations. Campbell and Fiske (1959) stated that both reliability and validity are based on agreement between measures. The difference, according to Campbell and Fiske, is that reliability involves the agreement of same trait-same method, while validity involves the agreement between same trait-different methods.

In the next section, the results of the reliability summaries will be discussed, as well as the results of the

multitrait-multimethod matrix. The matrix will be evaluated according to the criteria delineated by Campbell and Fiske (1959) for examining convergence and divergence. Correlational analyses used to examine convergent and discriminant relationships will be discussed. Recommendations relevant to each discussion will be presented.

Reliability Values in the Multitrait-Multimethod Matrix

In this study, the reliabilities (see Table 6) ranged from .92 - .96 for the Teacher Perception of Student Self-Determination (TPSD), which are high reliabilities. However, reliabilities for the Self-Determination Knowledge Scale (SDKS) ranged from .11 - .58. These are small to moderate reliabilities. Sax (1980) has identified certain conditions that affect reliability. They are listed below accompanied by examples supporting the existence of these conditions in the study:

1. Variability of the groups scores. Reliability may be defined as true variance divided by obtained variance. In order to have adequate reliability there must be some variance. In the matrix presented in Table 6, the Know and Value subscales obtained the lowest reliabilities (.21 and .11, respectively). An examination of the mean response numbers for these two subscales (see Table 10) indicates 87-99% of the subjects

correctly scored the majority of the items (7 out of 11). This indicates low variability for the Know and Value subscales.

2. Test difficulty level. In this study the high means show that the items in those subscales were easy for the students. As previously stated, 87-99% of the students had correct responses for most of the items in the Know and Value subscales. Low variability results in low reliability.

3. Number of items on the test. The more items in a scale, the higher the reliability. A comparison of the reliabilities for the Know and Value subscales, which have 5 and 6 items, respectively, are less than the reliabilities for the Act and Plan subscales, which have 10 items each (see Table 6). Additional evidence of this condition can be seen by reviewing the Spearman-Brown Corrected Internal Consistency coefficients. These coefficients, which are substantially larger, represent the predicted reliabilities for the subscales if increased to 100 times.

Even though large reliabilities is not a criterion described by Campbell and Fiske for establishing validity, it seems worthy of inclusion for establishing construct validity, particularly since it symbolizes the correlations of the monotrait-monomethod values. The reliabilities of the Self-Determination Knowledge Scale and the Teacher

Perception of Self-Determination scale may be enhanced by addressing each of the conditions, described above, that affect reliability.

It is interesting to note that the SDKS was developed for measuring the self-determination of students with disabilities, also. This may account for the lack of reliability attributed to test difficulty level. The participants in this study were eleventh and twelfth grade general education students, and the test was easy for them. Reliability of the instrument for this sample of students may be improved significantly by increasing the difficulty of the instrument.

The Convergent Requirement

According to Campbell and Fiske (1959), convergence is indicated by validity coefficients that are significantly different from zero. Campbell and Fiske (1959) stated that this requirement is often not met, even with large values. In this study, validity coefficients are low (.04) to moderate (.23).

These small to moderate correlations may be the result of subscale size. According to Sax (1980), validity coefficients based on correlations are affected by some of the same conditions that influence reliability coefficients. Therefore, by increasing the number of items, in each subscale reliability and validity may be increased. New items must be parallel to existing items in terms of

content, difficulty, etc.

The majority of the correlations were statistically significant. This indicates some degree of convergence of indicators. Although the validity diagonals presented evidence of less than adequate convergence according to the requirement, Campbell and Fiske consider it satisfactory to achieve some degree of convergence. According to Campbell and Fiske (1959), convergence, not complete congruence, is the goal of this approach.

Convergence of traits was also examined by correlating the subscales of the Autonomous Functioning Checklist with the Self-Determination Knowledge Scale and the Teacher Perception of Self-Determination (see Table 7). Significant correlations resulted for each of the subscales of the SDKS and the TPSD with the Management subscale of the Autonomous Functioning Checklist. The Management subscale is designed to measure the degree of independence involved in planning and utilizing resources, which is related to self-determination. Therefore, these significant correlations provide support for the ability of the SDKS and the TPSD to measure traits related to this aspect of self-determination.

The correlations for the total scores of all four instruments are presented in Table 9. The convergence of the SDKS and TPSD indicates a statistically significant relationship, as anticipated. However, the low correlation (.12) of the SDKS with the Autonomous Functioning Checklist was not expected. This results could possibly be due to the

validity of the Autonomous Functioning Checklist. Furthermore, the correlations of the SDKS and the TPSD with the Interpersonal Dependency are negative, as anticipated, but low to moderate, also. Both instruments were selected for the study mainly because of availability rather than established validity. Instruments with established validity that are appropriate for measuring divergent and convergent aspects of self-determination are scarce to non-existent. Therefore, judgments regarding the construct validity of the SDKS and TPSD using these instruments should be made with caution. Future research of self-determination would be enhanced by the development and validation of tests designed to measure traits similar and dissimilar to self-determination.

It is interesting to note the near zero correlation of the Plan subscales. This zero correlation indicates that for the sample of students in this study the knowledge of planning and ability to plan were unrelated. Results of convergent validity for the SDKS may be improved by comparing it to an instrument that measures knowledge of self-determination or a similar construct utilizing a different method. The other methods could include a performance or interview format.

The Discriminant Requirements

According to Campbell and Fiske (1959), there are three criteria that demonstrate discriminant validity. The first

requirement is based on the idea that the values in the validity diagonals (monotrait-heteromethod) should exceed the heterotrait-monomethod values. The values in the matrix presented in Table 6 did not pass this criterion. The values in the validity diagonals ranged from .04-.23, which is lower than the heterotrait-monomethod values ranging from .29-.47 for the SDKS, and .87-.88 for TPSD. Campbell and Fiske (1959) reported that this requirement is typically not met in research measuring individual differences. Additionally, the instrument's inability to achieve this criterion may have been affected by the overall interrelatedness of the traits. Of the 24 correlations, 21 resulted in statistically significant relationships. However, even though the subscales show significant relationships, they are not high correlations. High correlations would indicate that separate subscales may not be necessary. To improve the discriminant validity according to the multitrait-multimethod matrix, further examination of discriminant validity for this criterion is recommended using instruments with traits that are not so highly related.

The high heterotrait-monomethod correlations for the TPSD involves some method variance. Method variance is indicated by the extent of the difference between the parallel values of the monomethod block and the heteromethod blocks. A review of these values in Table 6 presents a substantial difference between the monomethod and

heteromethod values for the TPSD. Additionally, method variance is evidenced by the relative magnitude of the correlations to the reliabilities. For example, the correlation of Know/Value is .88, which is close to the reliabilities for Know (.95), and Value (.92). According to Campbell and Fiske (1959) method variance usually exceeds traits variance and is typical of individual differences research.

The high correlations of the TPSD, which was expanded from nine items to 30 items, may indicate some redundancy of items. Factor analysis may be useful in determining which items are redundant.

The second requirement suggests that the values in the validity diagonals exceed the heterotrait-heteromethod values. This involves reviewing the values in the rows and columns of the validity diagonals to identify valid trait variance. This requirement was not achieved. Discriminant invalidity is evidenced further by values in the heterotrait-heteromethod values that are as high as the values in the validity diagonals. The values in Table 6 show that with the exception of .04, the validity diagonals range from .18-.23, while most of the values in the heterotrait-heteromethod triangles range from .18-.32.

The third criterion requires that the pattern of the correlations be the same. This involves comparing the relationships to determine if the extent of the relationships follows a pattern. There is some evidence of

discriminant validity relative to this requirement. A review of Table 6 shows that for the SDKS, Know/Act is the largest correlation, and for the TPSD, Know/Act is the second largest correlation.

The subscales of the Interpersonal Dependency Inventory were correlated with the subscales of the Self-Determination Knowledge Scale and the Teacher Perception of Self-Determination scale to examine divergence of traits. The results presented in Table 8 indicated negative correlations for most of the subscales as anticipated. The Lack of Self-Confidence subscale had significant negative correlations with all but one of the subscales of the SDKS. The better evidence of divergence is provided by the negative correlations. No correlation is acceptable but provides minimal evidence. However, the results indicate a strong profile of no correlation which is evidence that the SDKS is not measuring dependency. The results of this table show some discriminant validity.

The results of the discriminant investigation pertaining to the multitrait-multimethod requirement produced less than adequate results using the SDKS and TPSD. However, it may be a function of the research design rather than the inadequacies of the instruments. "The interpretation of the validity diagonal in an absolute fashion requires the fortunate coincidence of both an independence of traits and an independence of methods represented by zero values in the heterotrait-heteromethod

triangles" (Campbell & Fiske, 1959, p. 277. Independence of traits and methods was difficult to achieve since the combined traits measure one construct (self-determination) and both methods were designed by the same authors. The evidence of interrelatedness may be considered appropriate when considering the factors affecting independence. Future investigations involving a multitrait-multimethod matrix should use methods that are more independent, or other instruments.

Discussion

The Self-Determination Knowledge Scale and the Teacher Perception of Self-Determination did not produce adequate evidence of convergent and discriminant validity according to the multitrait-multimethod matrix approach. However, it is important to note that the results of this study constitute the kind of outcomes that are considered typical by Campbell and Fiske (1959). For example, according to Campbell and Fiske, it is typical for a matrix to have an excessive amount of method variance which is greater than the trait variance. The typical results probably indicate the experimental control problems associated with field research. The control of extraneous variables and experimental error are more easily addressed in the laboratory setting than in the natural setting. Introduction of extraneous variables to the study may result in error and influence the findings.

In this study the results may be typical due to the error introduced in comparing the different domains of knowledge and perception. There is error expected when items are of similar type and magnitude. Additional error may have been introduced by comparing instruments measuring different domains.

According to Campbell and Fiske (1959), validity judgments based on a matrix must consider the hypothesized relationship, characteristics of the sample, the independence of methods, and the development stage of the construct.

In this study the relatedness of traits and methods involving the TPSD and SDKS resulted in significant correlations between different subscales. The sample consisted mostly of African American females. Additionally, the validation of self-determination is in the initial stages of development.

The characteristics of the sample, method relatedness, and construct development stage, emphasize the need to make validity judgments cautiously, and these results should not be regarded as final. Instead, they should serve as indicators of next steps and guidelines for future research.

Future research may involve validity investigations using the remaining four instruments that are based on the Field and Hoffman model of the Self-Determination Process (1992). Investigations involving instruments that are more closely associated with the domains measured by the TPSD and

SDKS would be relevant.

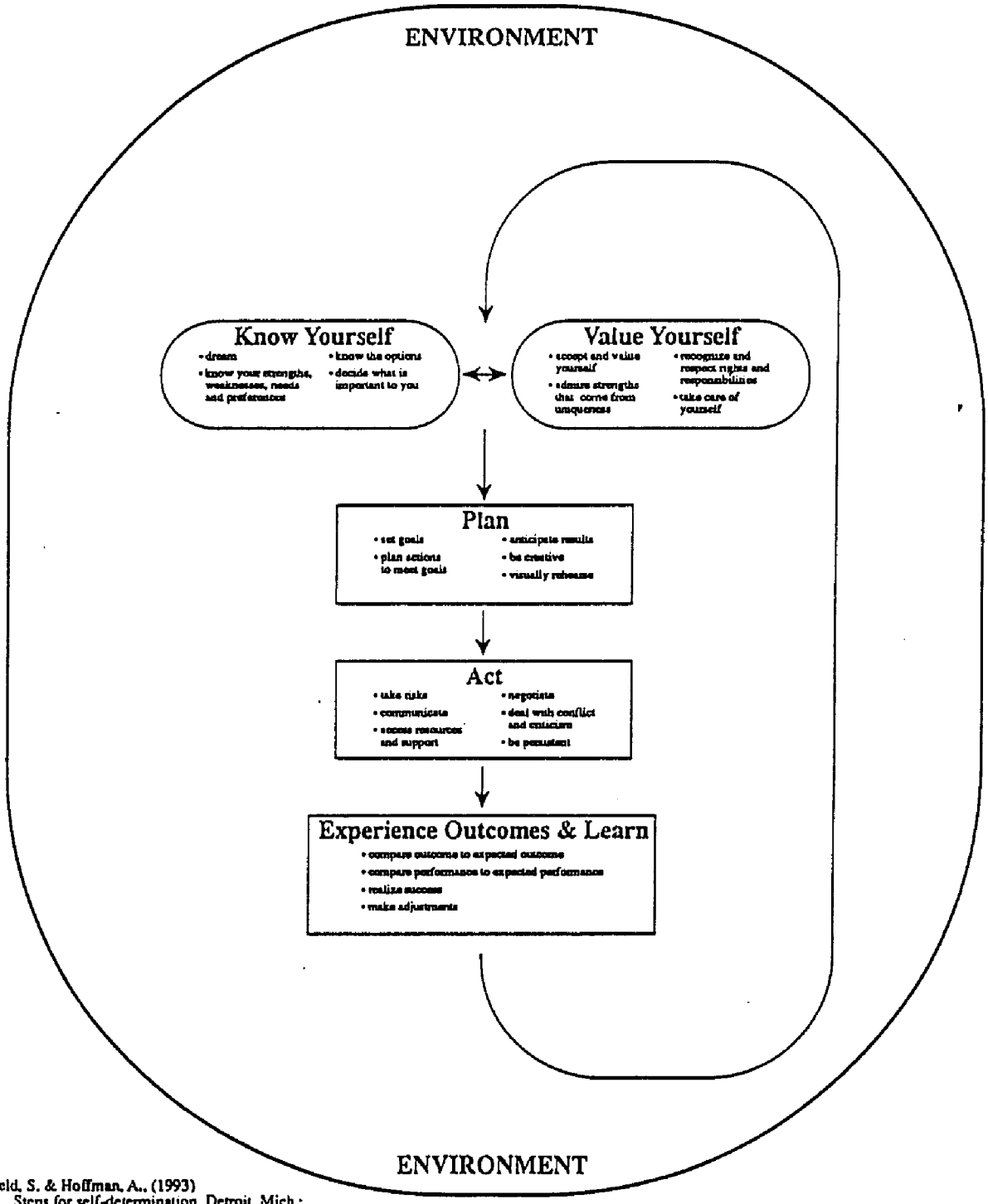
It would be valuable to design an experiment using a control and experimental group. The experimental group could be exposed to a self-determination curriculum and then compared to the non-exposed control group. In education, information indicating the differences between students who are self-determined to those who are not could result in the development of policy regarding strategies for addressing students' education needs relating to self-determination. A longitudinal study presenting the ways that self-determination characteristics affect socioeconomic status, IQ, and psychological health would be important in verifying the need for this policy development.

In employment settings, studies examining the relationship of self-determination to pertinent topics such as leadership ability and style, work behavior, job satisfaction, etc., could result in the development of programs that enable employers to promote and support self-determination for their employees. These programs could indicate how self-determination will be encouraged for the individual on a personal and professional level.

APPENDIX A

Steps for Self-Determination

SELF-DETERMINATION



Field, S. & Hoffman, A., (1993)
Steps for self-determination. Detroit, Mich.:
Developmental Disabilities Institute, Wayne State University

APPENDIX B

Letter to Parent/Guardian

Southfield Public Schools

SOUTHFIELD SENIOR HIGH SCHOOL
24675 LAHSER ROAD
SOUTHFIELD, MICHIGAN 48034
746-8650

September, 1993

Dear Parent or Guardian:

Your son or daughter has been selected to participate in a research study. The purpose of the project is to validate methods of measuring student self-determination. Self-determination involves the presence of attitudes or skills required for indicating preferences, making responsible decisions, setting goals, and initiating the action required for goal attainment. Results can help us find better ways of preparing students for adult life. This study is a dissertation project of Sharonlyn Harrison, Research Associate, Wayne State University.

Your son or daughter will participate in the following way: (a) completion of a self-determination knowledge scale, (b) completion of two scales that measure a students' perception of self-determination, and (c) high school teachers will observe particular skills and record them on a checklist.

All individual information will be kept confidential; only group results will be used. A summary of group results as well as your son's or daughter's teacher survey results will be available upon request from you or your son or daughter. Participation is voluntary and consent may be withdrawn at any time.

If you prefer that your son or daughter NOT participate, please let me know by signing and returning this form by October 1, 1993. If you consent to your son's or daughter's participation, there is no need to sign this form. However, if you have questions or want additional information, I will be happy to discuss the project with you.

For further information, you may contact me at Southfield High School, 313-746-8600.

Sincerely,

Kenneth A. Wilson

Ken Wilson
Principal, SHS

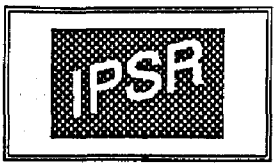
I prefer that my son or daughter NOT participate in the Self-Determination Validation Project

_____ _____

SIGNATURE DATE

APPENDIX C

Letters of Permission to Use Instruments



INSTITUTE OF PERSONALITY AND SOCIAL RESEARCH
UNIVERSITY OF CALIFORNIA, BERKELEY
2150 Kittredge, Room #2C
Berkeley, California 94720

(510) 642-5050 FAX: (510) 643-9334

Sept. 23, 1993

Sharonlynn Harrison
16176 Shaftsbury
Detroit, MI 48219

Dear Ms. Harrison:

This letter gives you permission to reproduce the Interpersonal Dependency Inventory for use in your doctoral research project. Note that the test form as we use it carries an innocuous title, to avoid sensitizing respondents to the notion of "dependency."

A copy of this test form is enclosed, along with a list of recent references, and a sheet describing the current scoring. In this new scoring, the 3rd subscale is treated both as an authentic assertion of autonomy, and as a defensive assertion. The cross-product of the scores on subscale 2 and subscale 3 produces a variable which is, in effect, a measure of the extent to which assertion of autonomy is defensive. The new total score based on the three subscales plus this cross-product term is superior to the total score described in the initial paper. Ss who score high (over 50) do tend to be dependent, and those who score low (below 50) do tend to be independent and autonomous.

Good luck on your project ! If you prepare an abstract or summary of your thesis, I'd like to receive a copy. Make sure it states the degree awarded, date of degree, and university awarding the degree.

Sincerely,

Harrison Gough

Harrison G. Gough
Professor of Psychology, Emeritus

MPG
Metropolitan Psychiatric Group

January 25, 1994

Ms. Sharonlyn Harrison
Research Associate
Developmental Disabilities Institute
Wayne State University
Justice Building
6001 Cass, Suite 326
Detroit, Michigan 48202

Dear Ms. Harrison:

I am pleased to give you permission to use the assessment measure that I and my colleagues developed, the Autonomous Functioning Checklist, in your dissertation research.

Please be advised, however, that the copyright is maintained by the publishers of the instrument, and your concerns in this regard are properly addressed to them.

Sincerely,

Ann D. Sigafoos, Ph.D.

Ann D. Sigafoos, Ph.D.

SPRINGWOOD PSYCHIATRIC INSTITUTE • RT. 4, BOX 50 • LEESBURG, VIRGINIA 22075 • (703) 777-0810
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MPG/MARSHALL • RT. 1005 (RENALDS AVE.) • MARSHALL, VIRGINIA 22115 (703) 364-3834

Wayne State University

326 Justice Building
6001 Cass Avenue
Detroit, MI 48202
(313) 577-2654
(313) 577-3770 (fax)

Developmental Disabilities Institute
The University Affiliated Program at Michigan

February 24, 1994

Ms. Sharonlyn Harrison
16176 Shaftsbury
Detroit, MI 48219

Dear Ms. Harrison:

The purpose of this letter is to confirm that you have our permission to use and reproduce the Self-Determination Knowledge Scale, the Self-Determination Teacher Perception Scale, and the Self-Determination Model in your doctoral dissertation study. Your study sounds very worthwhile and interesting. We look forward to hearing about your results.

Sincerely,

Sharon Field (SN)

Sharon Field, Ed.D.
Associate Professor (Research);
Director, Self-Determination Research Project

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ABSTRACT

SOME CONSTRUCT VALIDATION EVIDENCE
FOR TWO NEW MEASURES OF SELF-DETERMINATION

by

SHARONLYN HARRISON

May 1994

Adviser: Shlomo Sawilowski, Ph.D.

Major: Evaluation and Research

Degree: Doctor of Philosophy

The construct validity of the Self-Determination Knowledge Scale (SDKS) (Field, Hoffman, & Sawilowsky, 1991) and the Teacher Perception of Self-Determination (TPSD) Field, Hoffman, & Sawilowsky, 1993) was examined using an adaptation of the Multitrait-Multimethod developed by Campbell and Fiske (1959). The SDKS and TPSD are instruments for measuring self-determination of adolescents with and without disabilities. One hundred and ninety-seven eleventh and twelfth grade general education students participated in the study.

Convergence and discriminant evidence using the Multitrait-Multimethod approach, between the subscales of the SDKS, TPSD and the Autonomous Functioning Checklist (AFC) (Sigafoos, Feinstein, Damond, & Reiss, 1987), produced small to moderate validities. The correlations of the Interpersonal Dependency Inventory (Hirschfeld, Klerman, Gough, Barrett, Horchin, & Chodoff, 1977) with the SDKS and

TPSD resulted in statistically significant negative correlations, as anticipated. Results of the Autonomous Functioning Checklist and the Interpersonal Dependency Inventory correlations with the SDKS and TPSD provide some evidence of convergent and discriminant validity. Further research using other instruments, as well as samples representative of students with disabilities is recommended.

AUTOBIOGRAPHICAL STATEMENT

SHARONLYN G. HARRISON

EDUCATION

1984 M.A. Education, Education-Supervision
Wayne State University, Detroit, Michigan

1978 B.A. Education, Special Education
Wayne State University, Detroit, Michigan

RECENT PROFESSIONAL SERVICE ACTIVITIES

1991-92 Coordinator
Transition Steering Committee, Wayne County
Regional Education Service Agency

1989-90 President, Executive Board
Wayne Intermediate Federation of Teachers

PROFESSIONAL MEMBERSHIPS

American Educational Research Association
Council for Exceptional Children
The Association of Persons with Severe Handicaps

WRITINGS/RESEARCH

1989 "Community-Based Instruction Training Packet," prepared for Special Projects Office, Wayne County Intermediate School District.

1987 "Dramatics are Dynamic," prepared for Very Special Arts - Michigan

1986 Identifying, Imitating and Developing Dependence: The 3-I Instructional Continuum," prepared for Project Share - Developmental Disabilities Council, Wayne State University.

VIDEOS

1990 The Classroom Connection: Integrating Disabled Students in Regular Education Classrooms, prepared for Special Projects Office County Intermediate School District.

1989 From the Classroom to the Community - Guidelines for Implementing a Community-Based Instruction Program, prepared for Special Projects Office, Wayne County Intermediate School District.